



European Centre of Tort and Insurance Law

Research Unit for European Tort Law
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**Liability and Compensation Schemes
for Damage Resulting from the Presence
of Genetically Modified Organisms
in Non-GM Crops**

Annex I:
Country Reports

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QUESTIONNAIRE

I. Objective of the study

1. Summary

The introduction of genetically modified organisms (GMOs) in EU agriculture may have economic implications that result from incomplete segregation of GM and traditional crop production. In particular, the presence of GMOs could not be ruled out in non-GM agricultural products. Due to requirements for labelling of GMOs and other purity criteria of non-GM products as well as market demand for non-GMO products, such presence – and even reasonable fear thereof already – may have negative economic implications for the operators concerned. The present study is aimed to analyse aspects concerning the liability of GMO presence in traditional agricultural products.

2. Background

The cultivation of genetically modified (GM) crops in the EU may lead to cases, in which traditional agricultural products contain detectable traces of GMOs. On the one hand, such admixture may result from *inadequate application of segregation measures* by farmers. On the other hand, as agriculture is an open process that does not allow the complete isolation of individual fields, *a certain degree of admixture between neighbouring crops is unavoidable* in practice.

The presence of GMOs in traditional products *may lead to their devaluation*, which would entail an *economic damage to the producer* of the traditional products. For instance, due to the presence of the GMO the traditional product may require to be labelled as GM.

GMOs and products containing or produced from GMOs have to be labelled according to Community legislation, in particular Directive 2001/18/EC, Regulation (EC) No. 1829/2003, and Regulation (EC) No. 1830/2003. For the case of adventitious or technically unavoidable presence of GMOs in non-GM products, Regulation 1829/2003 provides for a threshold of 0.9% below which such presence in food or feed does not require labelling. For seeds, Directive 2001/18/EC provides for the possibility of adopting thresholds, below which the adventitious or technically unavoidable presence of GM seeds does not require the labelling of conventional seed lots. Such thresholds have not yet been adopted.

The presence of GMOs in a product above the labelling threshold also triggers the need for traceability of GM products according to Regulation 1830/2003, which may cause additional costs for the operators concerned.

In the EU, crops may only be commercially cultivated after having been authorised for the purpose of cultivation under Community legislation (i.e. Directive 2001/18 or Regulation 1829/2003). The labelling thresholds only apply for the presence of authorised GMOs. *Products containing detectable traces of unauthorised events can not be legally marketed in the EU.*

According to part B of Directive 2001/18, an individual Member State may grant authorisation for a non-commercial release of a GMO, for instance for the purpose of experimental field testing. As a result of such experimental cultivation, GMOs not authorised under part C of Directive 2001/18 or under Regulation 1829/2003 may be present in traditional crops. *This presence could cause economic damage as food and feed could not be marketed if it contains detectable traces of such GMOs.*

The admixture of GMOs may also have *specific implications for organic products*. Regulation (EEC) No. 2092/91 on organic production of agricultural products specifies that GMOs may not be used in organic production, with the exception of certain veterinary products. Therefore, products that require labelling as GM could not be used in organic farming. This implies that GMO presence in organic input materials (such as seed or feed) could have implications beyond the necessity of labelling alone.

Further economic implications may result for farmers producing non-GM crops, if specific requirements concerning GMO presence, which go beyond the provisions in Community legislation, are laid down in *contracts with the retailers* or other operators further down the food or feed production chain. Such conditions may also apply for products produced under quality schemes.

In addition to the economic implications resulting from the actual presence of a GMO in a traditional product, costs may also occur due to *sampling and testing of products*, either on a basis of routine controls or in cases, where relevant GMO admixture may be suspected. In many cases, the presence of GMOs and their quantity could not be assessed without the use of *laboratory analyses*, which may cause *significant costs*.

Furthermore, economic implications for traditional producers that may relate to the presence of GM crop production in a *region*, and which could enlarge the risk of GMO admixture, could not be ruled out. For instance, food or feed producers may *preferentially purchase crops from certain regions*, where no GM crop production may take place.

If the cultivation of GM crops will become more widespread, the *issue of liability in relation to GMO admixture* could gain further importance in the EU. Compared to other cases of economic damage resulting from neighbouring activity, GMO admixture may pose specific difficulties because the admixture *may initially remain undetected* and become known at later stages of the food

or feed production chain. Furthermore, the *causal link* between the damage and the operator responsible for it may not always be apparent as there may be different sources of admixture (e.g., seed impurities, outcrossing with neighbouring crops, volunteers from previous GM crop cultivation).

Liability in the case of economic damage that may result from the presence of GMOs in other crops is a case of civil law. Generally, civil law is in the responsibility of the Member States. In Recommendation 2003/556/EC on guidelines for the development of national strategies and best practices to ensure the coexistence of genetically modified crops with conventional and organic farming, the Commission states that:

„The type of instruments [to achieve co-existence] adopted may have an impact on the application of national liability rules in the event of economic damage resulting from admixture. Member States are advised to examine their civil liability laws to find out whether the existing national laws offer sufficient and equal possibilities in this regard. Farmers, seed suppliers and other operators should be fully informed about the liability criteria that apply in their country in the case of damage caused by admixture.

In this context, Member States may want to explore the feasibility and usefulness of adapting existing insurance schemes, or setting up new schemes.”

Member States may develop national or regional approaches to ensure the coexistence of GM crops with conventional or organic agriculture. According to Article 26a of Directive 2001/18:

„Member States may take appropriate measures to avoid the unintended presence of GMOs in other products.”

In the context of national or regional co-existence legislation Member States may also adopt specific provisions for liability in cases of GMO admixture, and develop compensation schemes, such as insurance systems or compensation funds.

Liability has to be seen in the context of measures to segregate GM crop production from traditional non-GM production in order to achieve co-existence between these different forms of agriculture. The approach taken by the Member States to allocate the responsibility for developing and implementing these segregation measures among the operators concerned has significant implications on liability.

II. Questions

I. Special Liability or Compensation Regimes

1. Introduction

Is there any **special liability or other compensation regime** already in force or at least under discussion in your country which specifically addresses or otherwise applies to liability for GMOs (though not necessarily exclusively), and does it also cover the risks described in the introduction to this questionnaire, i.e. economic damage resulting from actual or feared GMO presence in non-GM crops? If so, please explain this system in as much detail as possible (or – in case of more than one applicable system – all these systems and to which extent these overlap), focusing in particular on the following aspects, to the extent these are addressed by your country's legislation:

2. Causation

(a) Which criteria apply with respect to the **establishment of the causal link** between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

(b) How is the **burden of proof** distributed? Is there a reversed burden of proof, in the sense that the damage is presumed to be the consequence of the presence of a certain GM crop? How are the different sources of adventitious presence of GMOs (e.g. seed impurities, out-crossing with neighbouring crops, volunteers, transport, storage) being taken into account, if at all?

(c) How are problems of **multiple causes** handled by the regime? Does it include special rules on alternative, potential or uncertain causation? Is liability channelled to a particular person, and if so, how? Is joint and several or other collective liability foreseen, and under which conditions? Are there any specific rules for **recourse** between those liable?

3. Type of regime

Is the liability regime (if it is one) **fault-based, strict or absolute**?

(a) If fault-based, which are the parameters for determining fault, and how is the burden of proof being distributed?

(b) If strict, is there still a set of **defences** available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

(c) If it is no liability regime as such, but any other variety of compensation mechanism (including, but not limited to, administrative law measures, private and/or state funding), please describe its nature and functioning.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

(e) Is the liability regime **exclusive**, or does it overlap or coincide with any other specific or general liability regime in your country? In particular, can claims based on general tort law still be brought either simultaneously or subsequently?

4. Damage and remedies

(a) How is **damage defined and measured** under the system(s) you described? In what way is pure economic loss handled differently to other types of losses, if at all?

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?

(c) Where does the scheme draw the line between compensable and non-compensable losses? Are, for example, the losses of farmers in a region covered where the crops of only one of them have been contaminated, but where consumers fear that the entire region is affected?

(d) Which are the criteria for **determining the amount of compensation**? For instance: Is the value of the whole product covered or only the depreciation? How is depreciation calculated, based on standards laid down in legislation or, for instance, in private contractual agreements? Are indirect costs, such as increased overhead costs due to the need to find a new market for products, or to regain a certain producer status, taken into account?

(e) Is there a **financial limit** to liability?

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as **compulsory liability insurance**), and/or are farmers required to take out first-party insurance which would cover such losses?

(g) Which **procedures** apply to obtain redress?

(h) Do these systems also include possibilities to obtain **injunctive relief**, either before or after admixture has happened?

5. Compensation funds

If you have not addressed this earlier, are there any **compensation funds** already set up or planned in your country, whether public or private or a combination of both, that would provide for at least some compensation of losses of the kind covered by this study? If so, please describe them in detail, thereby focusing in particular on the following aspects:

(a) How are these funds **financed** (e.g. in the form of a levy on sown or harvested GM crops, or a levy on the sale of GM seeds, or a levy on fees to organic certification bodies)? Which operator groups are the main contributors to the fund (e.g. GM crop growers, traditional farmers, seed importers or developers, biotech industry)?

(b) Is there any contribution granted by the national or regional authorities?

(c) Is the contribution to the fund **mandatory or voluntary**?

(d) Is a balance established between the money paid into the fund and expenses of the fund? If so, at which time intervals are levies adapted to the actual expenses?

(e) How are the funds **operated**? Which body is in charge of managing the fund and of deciding about justified claims? Which procedures apply to obtain compensation of loss?

(f) Are there any provisions for **recourse** against those responsible for the actual cause of the loss?

6. Comparison to other specific liability or compensation regimes

To what extent is the specific liability or compensation regime that you have described comparable to other such schemes in your country, e.g. to product or environmental liability? Does it fit into a more broader system, or is it rather to be regarded as exceptional?

II. General Liability or other Compensation Schemes

1. Introduction

If there is no specific liability or other compensation regime applicable in your country (thereby disregarding for the time being possible future systems that you may already have described above), or if such specific regimes do not (entirely) exclude the applicability of other (in particular more general) regimes, please describe how the **general liability rules** (would) apply to cases of economic damage resulting from GMO presence in traditional crops.

Please focus in particular on the following aspects, which correspond to the catalogue already listed for the special regimes:

2. Causation

- (a) Which criteria apply with respect to the establishment of the **causal link** between the alleged damage and the presence of the GM crop concerned?
- (b) How is the **burden of proof** distributed? Is there a possibility for a reversal of the burden of proof, in the sense that the damage under certain conditions may be presumed to be the consequence of the presence of a certain GM crop, e.g. if it is established that the GMO farmer failed to apply proper segregation measures?
- (c) How are problems of **multiple causes** handled by the general regime? Does it include special rules on alternative, potential or uncertain causation? Is liability channelled to a particular person, and if so, how? Is joint and several or other collective liability foreseen, and under which conditions?

3. Standard of liability

- (a) In the case of **fault-based** liability, which are the parameters for determining fault and how is the burden of proof being distributed? Does it make any difference if there are clearly established statutory rules defining the required conduct for GMO agriculture?
- (b) To the extent a general **strict** liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?
- (c) Does your jurisdiction provide for special rules applicable to cases of **nuisance** or similar neighbourhood problems? Would these rules apply to cases of the kind covered by this study?

4. Damage and remedies

- (a) How is **damage defined and measured**? In what way is pure economic loss handled differently to other types of losses, if at all?
- (b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?

(c) Where does your legal system draw the line between compensable and non-compensable losses? Are, for example, the losses of farmers in a region covered where the crops of only one of them have been contaminated, but where consumers fear that the entire region is affected?

(d) Which are the criteria for **determining the amount of compensation** in general, and how would this apply to the kind of cases covered by this study? For instance: Would the value of the whole product be covered or only the depreciation? How is depreciation calculated, based on standards laid down in legislation or, for instance, in private contractual agreements?

(e) Is there a **financial limit** to liability, or is there any rule to **mitigate damages** once liability is established?

(f) Are operators under any general or specific **duty to obtain liability insurance** or to provide for other advance cover for potential liability?

(g) Which **procedures** apply to obtain redress in such cases?

(h) Are there any **general compensation schemes** that may be applicable in such cases, and how do they operate?

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover **costs associated with sampling and testing of GMO presence** in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply (and if so, who would have to bear these costs)?

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

IV. Cross-border issues

1. Are there any **special jurisdictional** or **conflict of laws rules** in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

2. If there are no such specific rules, how would the **general rules of jurisdiction and choice of law** apply to cases of such kind in your country?

Country Reports

The country reports in the following were submitted by 31 August 2006 and are therefore current as of that date. Subsequent changes and amendments in the laws of the jurisdictions covered were taken into account to the extent possible.

1. AUSTRIA

Monika Hinteregger/Elke Joeinig

I. Special Liability or Compensation Regimes

1. Introduction

- 1 The 2004 amendment of the Gene Technology Act (*Gentechnikgesetz – GTG*, Federal Law Gazette I, No. 126/2004) introduced specific rules governing liability problems caused by the coexistence of GMO-free farms and farms using GMOs. The provisions (§ 79k to § 79m), according to the rules of the General Civil Code (ABGB) on neighbourhood liability (§§ 364, 364a ABGB), provide for injunctive relief and a damage claim.
- 2 § 79k para. 1 GTG entitles the owner of an agriculturally used land, or the holder of a property right, to an injunction against immissions from neighbouring land, provided that the neighbour cultivates products in the sense of § 54 para. 1 GTG and is obliged to registration according to § 101c para. 2 GTG. Products in the sense of § 54 para. 1 GTG are products that consist of GMOs or contain GMOs.
- 3 The injunction covers contamination by GMOs from agriculturally used land (e.g. airborne pollen from genetically modified plants) either caused directly by sowing or planting or by indirect effects during the growth phase, the harvest or even later. The term „neighbour” is interpreted extensively and, according to the common understanding of § 364 para. 2 ABGB, it is not necessary that the interfering and affected estates be contiguous.
- 4 The interference is only actionable if it meets two further requirements. It must exceed a certain tolerance threshold and it must cause a substantial impairment of the use of the affected farmland. The required tolerance threshold is defined as „the level customary under local conditions”. As GM-production has no substantial tradition in Austria, by now, all interference must be considered as unusual. With regard to the second requirement, the substantial impairment of the use of the land, it is, according to § 79 para. 1 GTG, sufficient that the owner, due to the interference, can not place the produce on the market, either not at all, or in the way he intended to. Thus, an organic farmer is entitled to an injunction if his products, due to the interference, no longer meet the applicable threshold values for organic farming. The same applies to non-organic farmers who do not wish to use GMOs.

- 5 According to § 79k para. 2 GTG, the neighbour who causes an interference in the sense of para. 1 is also liable for the harm caused by the interference to the other landowner or holder of a property right. In order to give rise to a damage claim the interference must again exceed the level customary under local conditions and must cause a substantial impairment of the use of the farmland. The damage claim is regardless of fault. It covers damage to persons and property, including loss of profits. If the damage to property constitutes a significant impairment to the environment, the damage claim also covers the costs of measures of reinstatement as provided by § 79 b GTG.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 6 Causality is a necessary prerequisite for liability. In principle, the burden of establishing the causal link between the damage and the tortious act is with the plaintiff. In general the causal link is established if the plaintiff can show, to the satisfaction of the court (a very high level of probability close to certainty), that the defendant caused the injury. The following evidence is admissible in civil proceedings: documents, witnesses, experts, visual inspection by the court and interrogation of the parties. The costs of providing evidence constitute legal costs that, in general, must be borne by the losing party.

(b) How is the burden of proof distributed?

- 7 In general, the burden of proof for all requirements of the damage claim lies with the injured person. For damage caused by GMOs, however, § 79k para. 4 GTG provides for a presumption of causation. If the owner of the affected land can plausibly show that, under the particular circumstances of the case, a certain act or omission of the neighbour was prone to cause the interference in the sense of para. 1, it is presumed that the interference was caused by the act or omission. The presumption is rebutted if the neighbour can show that it is probable that the interference was not caused by his act or omission. In this case the burden of proof lies with the injured landowner.

(c) How are problems of multiple causes handled by the regime?

- 8 If several neighbours have caused an interference in the sense of § 79k para. 1 GTG, each neighbour is only liable for his proportion of the damage caused to the landowner. If the proportions cannot be determined, all neighbours are jointly and severally liable. The GTG does not provide for a specific rule for recourse between the liable persons. Therefore the rule of the general tort law, § 896 ABGB, has to be applied. According to this rule, the tortfeasor who compensated the damage has a right of recourse against the other tortfeasors.

- 9 In cases of alternative, cumulative and overtaking (intervening) causation the provisions of the general tort law have to be applied. In the case of alternative or cumulative causation all actors are jointly and severally liable. In the case of overtaking (intervening causation), courts are usually of the opinion that the person who caused the damage first is wholly liable. An exception is only made in personal injury cases where the action of the tortfeasor caused the outbreak of a disease that the victim would have developed later, due to his/her personal disposition. The defendant would thus only be liable for the loss until the point in time in which the victim would have contracted the disease anyway. Several authors (see *Koziol, Österreichisches Haftpflichtrecht* I³ (1997) 3/58 ff.), however, suggest considering the liability of the first tortfeasor with due regard to the action of the second one in all cases of intervening causation. The result may be a total or partial exculpation of the first injurer, or, under certain conditions, joint and several liability.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

(b) If it is a strict liability regime, is there still a set of defences available to the actor?

- 10 §§ 79k – 79m GTG do not explicitly provide for any defences available to the tortfeasor.

(c) If it is no liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 11 No, the criteria do not differ.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 12 According to § 79k para. 5 GTG, the provisions of the General Civil Code and of other rules governing the prohibition of interference and compensation of damage remain unaffected. Plaintiffs can therefore, simultaneously or subsequently, bring claims based on general tort law. Plaintiffs who do not use their land agriculturally are, however, not entitled to rely on § 79k GTG, but have to invoke the law of the neighbourhood of the General Civil Code (§§ 364, 364a ABGB).

- 13 Several Bundesländer enacted their own Genetic Engineering Precautionary Measures Acts. Some of them also contain liability provisions (see e.g. § 8 para. 1 of the Genetic Engineering Precautionary Measures Act of Salzburg, which provides for a damage claim in case of the illegal release of GMOs).

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described? In what way is pure economic loss handled differently to other types of losses, if at all?

- 14 Liability under § 79k para. 2 GTG covers damage to person and property, including lost profit. The injured landowner may, for instance, claim the loss of profits which he suffers because he has to destroy the crop or because he obtains a lower price for the crop. If the damage to property presents a significant impairment to the environment, the injured person, according to § 79b GTG, is entitled to remediation costs, even if these costs exceed the market value of the impaired good. The plaintiff may also ask for advance payment, but has to refund the amount exceeding the market value of the impaired good, if he does not restore the damaged good to its original condition within a reasonable amount of time. (Impairment of the environment that cannot be qualified as damage to the plaintiff's property does not entitle the latter to damages.)

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 15 An action according to section 79k GTG (injunction and damage claim) requires actual interference in the sense of § 79 k para. 1 GTG.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 16 As mentioned above, the damage claim according to § 79k para. 2 GTG requires an actual interference by products consisting of, or containing, genetically modified organisms, that exceeds the level customary under local conditions and causes a substantial impairment of the enjoyment of the land.

(d) Which are the criteria for determining the amount of compensation?

- 17 If the plaintiff can no longer place his product on the market, the compensation amount covers the value of the whole product. The depreciation is compensated, in cases where the plaintiff can place the product on the market albeit not in the intended way, e.g. if an organic farmer, due to the contamination, can no longer meet the applicable organic farming standards.

- 18 There is yet no case law concerning the application of § 79k GTG. Thus it is difficult to tell what sort of damage is covered by this liability regime. According to the explanatory documents to § 79k GTG, the plaintiff is entitled to full reparation including compensation of lost profits. Damage assessment is made according to the subjective situation of the plaintiff which means that sales decline, sales difficulties and the above-mentioned indirect costs should be covered.

(e) Is there a financial limit to liability?

- 19 No, there is no financial limit.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 20 §§ 79k-m GTG do not provide for any obligation to provide for financial security. Such obligation is only provided in § 79j GTG for operators in the sense of § 79a GTG.

(g) Which procedures apply to obtain redress?

- 21 Before filing an action, the plaintiff has to bring the matter before a conciliation body for an amicable settlement, or to submit an application according to § 433 para. 1 Code of Civil Procedure („Praetorian” Settlement), or, if the neighbour agrees, to submit the dispute to a mediator (§ 79m para. 1 GTG). Filing an action is only admissible, if an amicable settlement cannot be reached within three months from the beginning of the conciliation process, or the arrival of the application at court or the beginning of the mediation scheme. Only conciliation bodies established by the Chambers of Agriculture, the Associations of Lawyers or Notaries and other public corporations can constitute conciliation bodies in the sense of § 79m para. 1 GTG. Mediators must fulfil the requirements of the Act on Mediation (Federal Law Gazette I, No. 29/2003). In the absence of a contractual agreement the costs of the conciliation scheme have to be borne by the neighbour who triggered the amicable settlement. If no amicable settlement is reached and an action is filed, these costs constitute legal costs. When filing the action the plaintiff has to include a certificate of the conciliation body, the court or the mediator confirming that no amicable settlement was reached.
- 22 Damage claims up to € 10.000 must be brought before the District Court (*Bezirksgericht*). All the other claims must be brought before the Regional Court (*Landesgericht*).

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 23 Yes. For further details see supra no. 2 et seq. In case of concrete danger, the injunction can also be brought preventively. Even in this case the obligation to undergo the settlement procedure according to § 79m GTG must be taken into account. It could also be admissible to apply for a temporary injunction.

5. Compensation funds

- 24 No, there are no compensation funds already set up or planned in Austria.
- 25 In this context it must be mentioned that damage caused by GMOs is usually not covered by third party insurance (See Article 7 p. 7 of the model insurance conditions for third party liability insurance 2005 of the Austrian Insurance Association).

6. Comparison to other specific liability or compensation regimes

- 26 Sections 79k – 79m GTG draw upon several liability regimes. They were designed after the law of the neighbourhood in the General Civil Code (§§ 364, 364a ABGB), which provide for an injunction against immissions and a damage claim, if the harmful activity is covered by a licence. The definition of compensable damage is based on § 79a GTG and § 11 Nuclear Liability Act (AtomHG).
- 27 Pursuant to § 364 para. 2 ABGB, the owner of land is entitled to restrain his neighbour from affecting his property with wastewater, smoke, gas, heat, smells, noises, vibrations and similar interferences, in so far as these effects exceed the level customary under local conditions (the tolerance threshold). The interference must lead to a substantial impairment of the enjoyment of land, which itself is defined by what is customary under local conditions, considering the actual level of pollution in the immediate vicinity of the affected land. Finally, the interference must be attributable to human behaviour. Natural occurrences and interferences of a purely aesthetic nature are not actionable. The plaintiff must have an interest in the property to have legal standing. According to the Supreme Court (OGH), „interest” includes ownership of land, as well as other property rights, including real servitude and leaseholds. It is not necessary that the interfering and affected estates be contiguous. The action can be brought against the person responsible for the interference and/or the owner of the interfering land, provided that the owner has tolerated the interference and is or was in the legal or actual position to prevent it. Thus, it is sufficient that there is a legal relationship between the owner and the polluter (e.g. tenancy), whether or not this relationship actually empowers the owner to prevent the interference.

- 28 If the impairment is caused by an activity covered by a licence, the owner of land is not entitled to obtain injunctive relief but he can claim compensation under § 364a ABGB. The claim for damages is regardless of fault. In order to be entitled to sue under this provision, the owner of land has to satisfy the prerequisite conditions for an injunction provided by § 364 para. 2 ABGB. The defendant has the burden of proof to demonstrate that the interference is not beyond the tolerance threshold. Section 364a ABGB covers damage to real estate, such as the cost of repairs and other remedial work, diminution of value of property and loss of profits. Contrary to § 79 para. 2 GTG, § 364a ABGB does not allow for loss of life and personal injury. Under certain conditions, the owner of land can rely on § 364a ABGB even if the activity of the neighbour is unlicensed. The Supreme Court (OGH) applies § 364a analogously to cases where the injured land owner did not have the legal or factual opportunity to prevent the damage by an injunction, or where someone operates a plant or engages in an activity that exposes his/her neighbours to imminent offensive effects. Due to this liberal application of § 364a ABGB by the Supreme Court, this Section has become a general strict liability rule for environmental damage that covers all types of real property damage caused by activities that are dangerous or offensive to the environment. Such an application of § 364a ABGB, however, has been heavily criticised by some legal scholars.
- 29 The definition of the damage of § 79k para. 2 GTG corresponds to the definition according to § 79a GTG. §§ 79a – 79j GTG provide for a specific strict liability regime covering the risks of the production, use, increase, storage, destruction or disposal of genetically modified organisms, as well as their intentional or unintentional release. If the GMO is not put lawfully into circulation, the operator of the activity is liable for damages for loss of life, personal injury and property damage, as well as economic losses arising from these damages. If the damage to property presents a significant impairment to the environment, the injured person, according to § 79b GTG, is entitled to remediation costs, even if these costs exceed the market value of the impaired good. The plaintiff may also ask for advance payment. Nevertheless, if the injured person does not perform the remediation within a reasonable amount of time, the amount exceeding the market value of the impaired good must be refunded. Impairment of the environment that cannot be qualified as damage to the property does not entitle the landowner to damages. The cause of the damage must lie in the specific properties of the organism, derived from the genetic modification or in the combination of these properties with other dangerous properties of the organism. Liability is unlimited in amount. To ease the burden of proof for the injured party, § 79d GTG establishes a presumption of causality. If an injured person can submit reasonable evidence that the damage might have been caused by a certain genetically modified organism, it will be presumed that the injury was caused by the genetically modified properties of the organism. The defendant may rebut the presumption by proving that it is probable that the damage was not at all, or only partly, caused by the

genetically modified properties of the organism. For the rebuttal, it is sufficient to show that the damage probably derived from another cause.

- 30 The definition of the damage of § 79k para. 2 GTG also corresponds to the definition according to § 11 Nuclear Liability Act (Atomhaftungsgesetz 1999, AtomHG). The operator of a nuclear plant or the carrier of nuclear material is liable to compensate death or personal injury and loss of or damage to property. § 11 para. 1 AtomHG adds that compensation for property damage shall also include decontamination costs. The person who has suffered the loss or damage is also entitled to claim damages for consequent economic loss. If the damage to property represents significant impairment to the environment, the injured person is entitled to the costs of measures of reinstatement, even if these costs exceed the market value of the impaired good. The plaintiff may also ask for advance payment. However, any amount forwarded that exceeds the market value of the damaged good must be refunded when restoration is not performed within reasonable amount of time. An impairment of the environment that is not considered as damage to property does not entitle the plaintiff to damages.

II. General Liability or other Compensation Schemes

1. Introduction

- 31 According to § 1295 ABGB, anyone who has suffered damage is entitled to claim compensation for the damage inflicted upon him by fault, be it by breach of contract or otherwise. The injured person has to prove that the tortfeasor caused the damage and that he is at fault.
- 32 For damage claims based on general tort law unlawfulness and fault is required. A conduct is unlawful if it violates a specific legal rule. A GMO-farmer must comply with special rules of conduct and with notification and documentation duties provided by the GTG. The failure to perform these duties is unlawful and can also give rise to a liability for breach of a protective law (Haftung wegen Schutzgesetzverletzung). In addition to unlawfulness, fault is required. The law differentiates between intent and negligence. According to the prevailing view in case of a breach of a protective law a reversal of burden of proof concerning fault is applied.
- 33 Pursuant to §§ 1323, 1324 ABGB, in case of slight degree of negligence, the claim for damages covers only the actual damage. Under fault-based liability, loss of profits is only recoverable when the defendant is found to be grossly negligent.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 34 Causality is a necessary prerequisite for liability in tort. In principle, the burden of establishing the causal link between the damage and the tortious act is with the plaintiff. The admission and weighing of the evidence lies within the discretion of the court (free evaluation of evidence). In general the causal link is established if the plaintiff can show, to the satisfaction of the court (a very high level of probability close to certainty), that the defendant caused the injury.

(b) How is the burden of proof distributed?

- 35 In principle, the burden of establishing the causal link between the damage and the tortious act is with the plaintiff. Under certain conditions, the burden of proof may be eased for the plaintiff. Causality may be established by prima facie evidence, if causation can be inferred against the defendant from a typical course of events. The application of prima facie evidence is especially justified where the defendant has violated a law that was designed to protect persons like the plaintiff from the sort of damage that occurred (protective law, Schutzgesetz). The special rules of conduct and the notification and documentation duties provided by the GTG can be considered as protective laws. Therefore, causality may be established by prima facie evidence.

(c) How are problems of multiple causes handled by the general regime?

- 36 If several persons have caused the damage and the injured person is not able to apportion the damage among the defendants, he is entitled to claim full damages from each defendant (§ 1302 ABGB). The actors are jointly and severally liable. Joint and several liability also applies for joint perpetration (§ 1301 ABGB).
- 37 However, before a court applies joint and several liability or equal apportionment of damages, it is obliged to try to estimate each defendant's share. Only if such estimation is not possible can joint and several liability (§ 1302 ABGB) be assessed against defendants. According to § 896 ABGB the tortfeasor who has paid compensation has a right of recourse against the other tortfeasors.
- 38 For alternative, cumulative and intervening causation see supra no. 9.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 39 Fault is established if the actor can be personally blamed for his unlawful conduct. The law differentiates between intent and negligence. The tortfeasor is negligent if he fails to observe the duty of reasonable care. A GMO-farmer must be considered an expert according to § 1299 ABGB. Pursuant to this provision experts must have the typical capacities and skills of their profession. Therefore, an objective standard for fault is applied. In principle, the burden of proof is with the injured person (§ 1296 ABGB). In case of the breach of a protective law, according to the prevailing view, § 1298 ABGB has to be applied which provides for the reversal of the burden of proof.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability.

40 –

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 41 The law of neighbourhood in the General Civil Code (§§ 364, 364a ABGB) is described above under I.6.
- 42 The licence for bringing genetically modified organisms into circulation according to the GTG does not constitute a licence in the sense of § 364a ABGB. According to consistent case law, § 364a ABGB requires that the interests of the neighbours must be taken into account in the permit procedure as is provided for the permit procedure of the §§ 74ff Industrial Code (GewO). The GTG does not fulfil this requirement. The cultivation of GMO-seeds or GMO-plants that were brought into circulation with a GTG-licence do not require any other licence. Therefore, the neighbour is entitled to obtain injunctive relief according to § 364 para. 2 ABGB. If the interference causes damage the neighbour may claim compensation based on general tort law (§§ 1295 ff. ABGB). § 364 a ABGB may only be applied analogously (see supra no. 28).

4. Damage and remedies

(a) How is damage defined and measured?

- 43 Pursuant to §§ 1323, 1324 ABGB in the case of a slight degree of negligence the claim for damages covers only the actual damage. Loss of profits is only

recoverable when the defendant is found to be grossly negligent. However, the distinction between actual damage and loss of profits is difficult. According to court rulings, a profit has to be considered as actual damage if it is highly probable (close to certainty) that the profit would have been gained. Pure economic loss, which is not based on an infringement of an absolutely protected legal interest (personal rights, property etc.), is only recoverable within the scope of contractual liability, in case of damage infliction *contra bonos mores*, and, in case of the violation of a protective law, if the violated protective law is designed, *inter alia*, to protect from pure economic loss.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 44 The plaintiff has to prove that the defendant caused the damage by an unlawful and culpable action. The loss of a farmer whose customers only fear that his products are no longer GMO-free, would be regarded as pure economic loss and, usually would not constitute compensable damage.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 45 As mentioned above, liability based on general tort law requires an unlawful and culpable action that causes the damage. Such losses constitute pure economic loss.

(d) Which are the criteria for determining the amount of compensation in general?

- 46 Damage assessment is made according to the market value of the good at the time of the infliction of damage (§ 1332 ABGB; objective damage assessment). If the defendant is found to be grossly negligent, the loss of profits is also recoverable. Then the plaintiff may claim the difference between his present state of property and the state he would be in without the tortious act (subjective damage assessment according to the balance theory). In this case the plaintiff's subjective circumstances are taken into account.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 47 No, there is no financial limit to liability.
- 48 In Austrian tort law, contributory negligence is a very common defence. It is a general tort rule governed by § 1304 ABGB. By direct or by analogous application, § 1304 ABGB covers all types of tortious liability, like intentional and negligent behaviour, trespass, and strict liability. It also includes all types of

damages from loss of life and personal injury to compensation for economic loss. If the injured person contributed to the damage by his own fault, the amount of recoverable damage will be reduced. If both parties are at fault, the damage will be apportioned according to the seriousness of their misconduct. Predominant guilt on one side, however, can justify full recovery or total exclusion of recovery of damages.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 49 No, the operators have no legal duty to obtain liability insurance or to provide for other advance cover for potential liability.

(g) Which procedures apply to obtain redress in such cases?

- 50 Claims for damages up to € 10.000 must be brought before the District Court (*Bezirksgericht*), all the other claims before the Regional Court (*Landesgericht*).

III. Sampling and testing costs

- 51 The Austrian Agency for Health and Food Safety (AGES) and the Austrian Federal Office for Food Safety (BAES) are competent for the analysis of seed, feeding stuff and food for the presence of GMO. The two organisations are closely connected. The AGES and the BAES operate officially in accordance with the Seed Act (*Saatgutgesetz 1997*) and the Feedstuffs Act (*Futtermittelgesetz 1999*). In the course of an admission procedure for a seed or a feeding stuff the BAES has to sample the seed/feeding stuff. For its activities there is a scale of charges including GMO testing. The charges have to be borne by the applicant. The BAES also carries out checks of seed and feeding stuff. If in the course of the checks an infringement of the Seed Act or the Feedstuffs Act is found out, the charges for these checks have to be borne by the accused person (§ 6 para. 6 Austrian Law for Health and Food Safety – GESG). According to § 8 para. 7 GESG, the AGES may also render services to private persons. There is a specific scale of charges, including GMO testing, for the analysis of a private sample. The charges for the analysis have to be borne by the private person. According to § 8 para. 2 sub-para 6 GESG, the AGES is also competent for the analysis of samples in accordance with the Food and Consumer Protection Act (*Lebensmittelsicherheits- und Verbraucherschutzgesetz – LMSVG*). The competent institutes analyse official samples delivered by organs responsible for the inspection of foodstuffs. In the case of an infringement of the Food and Consumer Protection Act, the accused person has to bear the charges for the analysis (§ 71 para. 2 and 3 LMSVG). The AGES may also analyse private samples. The charges for the analysis have to be borne by the private person only if the analysis has not given rise to a complaint (§ 71 para. 1 LMSVG).

IV. Cross-border issues

- 52 For non contractual claims for damages because of interferences according to § 79k GTG the right of the state where the damage occurred has to be applied (§ 79l GTG).
- 53 For injunctive relief it is the right of the damaged real estate (§ 31 Austrian International Private Law Statute – IPRG). Therefore, Austrian Law has to be applied if the damaged real estate lies in Austria.
- 54 For a claim for damages based on general tort law, § 48 IPRG has to be applied. Pursuant to this provision, the right of the state where the conduct that caused the damage was carried out has to be applied.

2. BELGIUM

Bernard Dubuisson/Gregoire Gathem

I. Special Liability or Compensation Regimes

Preliminary notice: Given the fact that the questions relate principally to extra-contractual civil liability, we will not analyse the solutions ordered by contractual liability regimes, namely the relations between vendors, purchasers and possibly, under-purchasers.

- 1 Belgian law does not provide for any specific liability regime dedicated to the dissemination of GMOs.
- 2 In expectation of the implementation of the European Directive 2004/35, which however does not apply to physical injuries, damages to property or economic losses, neither does Belgian law provide for a general liability regime for damage to the environment¹ or any general strict liability regime resting on the created risk.
- 3 On the other hand, some texts, implementing the European directives, regulate the use of GMOs and could, for this reason, influence the liability for the economic losses resulting from the presence of GMOs in non-GM crops.
- 4 The first is the Royal decree of 21 February 2005 regulating the voluntary dissemination in the environment as well as the marketing of genetically modified organisms or products thereof, which came into force on 24 February 2005. This regulation aims at preventively protecting human health and the environment when one proceeds to the voluntary dissemination or marketing of GMOs. It is worth noting that this text subjects the voluntary dissemination to the government's preliminary authorization and obliges the owners correlatively to respect the specific conditions defined in this authorization².

1 J-F. Neuray, *Droit de l'environnement*, Bruxelles, Bruylant, 2001, p. 663 et 698. The Agreement of Lugano of 8 March 1993 is not in force in Belgium. On this topic, see N. De Sadeleer, „La convention du Conseil de l'Europe sur la responsabilité civile des dommages résultant de l'exercice d'activités dangereuses pour l'environnement“, *R.G.A.R.*, 1994, n°12367.

2 Article 1^{er}, § 1^{er} „[...] Conformément au principe de précaution, le présent arrêté vise à protéger la santé humaine et l'environnement: lorsque l'on procède à la dissémination volontaire d'organismes génétiquement modifiés dans l'environnement à toute autre fin que la mise sur le marché ; lorsque l'on place, sur le marché à l'intérieur de la Communauté, des organismes génétiquement modifiés en tant que produits ou éléments de produits [...]“.

Furthermore, it defines the procedures for granting and withdrawing of this authorization, as well as the entities responsible for enforcing the regulation. Breach of this regulation is subject of criminal and administrative sanctions.

- 5 In the field of civil liability, this text will facilitate the proof of fault by specifying the conditions of dissemination and marketing of GMO. As we will see, a violation of these conditions will constitute a fault within the meaning of the Civil Code (see no. 21). Moreover, article 13 of the decree provides that the request for authorization („the notification”) must include the following statement of civil liability: „I undersigned X, the notifying person, states to undertake the full civil liability for any damage to human or animal health, to goods and the environment, which would result from the projected experimentation”. This text does not purport to create an obligation of insurance nor a new derogatory liability regime that would be based on the risk³. To the contrary, it seems to be a provision which invalidates any clause permitting the exclusion of the limitation of compensation for the damage resulting from the experimentation of GMO.
- 6 Other texts are likely to apply, in a direct or indirect way, to the cultivation of GMO and could consequently affect the determination of the civil liability related to GMO. We do nothing but mention them:
 - EC Regulation 178/2002 of 28 January 2002 aims at protecting human health and consumers on the one hand, and ensures the correct operation of the Internal Market with regard to the foodstuffs on the other hand. Notwithstanding the heading of its chapter 2, this regulation does not contain in itself any provision concerning directly the civil liability⁴.
 - EC Directive 2004/35/CE on environmental liability with regard to the prevention and remedying of environmental damage, has not yet been implemented in Belgian Law. The directive limits its scope to ecological damage. It does not apply to physical injuries, damages to private property, or economic losses and does not affect the rights resulting from these categories of damage (14th recital).
 - The law of 24 January 1977 relating to the protection of consumers’ health with regard to the foodstuffs and the other products, as well as its implementing decrees. This law contains accompanying administrative measures and criminal sanctions, the latter potentially involving the criminal liability of a legal entity (Penal Code, article 41bis).

³ A Law would be required to create such liability regime.

⁴ Voy. X. Vermandele, „Quelle responsabilité pour les exploitants du secteur agroalimentaire?”, in *La sécurité alimentaire et la réglementation des OGM*, Bruxelles, Larcier, 2005, p. 99 et s.

- The Safety of Products and Services Law of 9 February 1994 which does not apply however to the foodstuffs.
 - The Law of 20 January 1999 aiming at the protection of the marine environment in marine spaces under jurisdiction of Belgium (article 11, § 4): „The voluntary introduction of indigenous or not, genetically modified organisms, in marine spaces, is prohibited”. The author of a damage or a disturbance which affects the marine environment is held to make reparation even if it did not make any fault (article 37, § 1st). It is sufficient that the disturbance results from an accident or an infringement. The goal of this legislation is less to compensate the economic losses than to safeguard the specific character, the biodiversity and the integrity of the marine environment.
 - The Belgian Rural Code whose articles 35 and 36 respectively impose a distance for plantation and lays down the right for the neighbour to require the pulling up of the plants being at a less distance, subject to the abuse of right.
- 7 There is no specific compensation scheme covering the losses resulting from the presence of GMO in traditional crop. However, as Regions have a limited competency to regulate the economic aspects of the coexistence, they might regulate the economic consequences of coexistence. In this respect, discussions are going on within both the Flemish (i.e. in the drafting phase) and the Walloon Parliaments (i.e. waiting for Parliament assent). The draft legislation seeks to create a fund aimed at compensating economic damages in the absence of identifiable tortfeasor. One can already note that the Walloon project set forth an obligation for the farmers, but also for agricultural enterprises and seed sellers to contribute the fund, proportionally to the risk they generate.
- 8 Finally, a fund was created by the decree of the Walloon Region (*Région Wallone*) of 27 June 1996 and the implementing decree of 5 November 1998 relating to the compensation for the damage caused by waste but should not apply to the damage caused by the GMO, except if the latter constitutes waste. However, it does not seem to be plausible.

II. General liability or other compensation schemes

1. Introduction

- 9 In the absence of specific rules, the general rules of the Belgian Civil Code will govern the liability for damages resulting from the presence of GMO in traditional crops. One must distinguish between the liability based on personal fault (article 1382: „Any act whatever of man which causes damage to another, obliges him by whose fault it occurred, to make reparation“ and 1383 of the Civil Code: „Each one is liable for the damage which he causes not only by his own act but also by his negligence or imprudence“) and the liability for

damages caused by things which one has in his keeping (*garde*) (article 1384, sub. 1st: „One is liable not only for the damage which he caused by his own act but also for that which is caused by the act of persons for whom he is responsible, or by things which he has in his keeping“). The right for compensation thus only requires that the plaintiff shows evidence that his damage is both recoverable and in causal link with a fault (article 1382) or with the defect (*vice*) of a thing (article 1384).

- 10 In addition to these bicentennial rules, which are at the base of a primarily Praetorian civil liability regime, one has also to mention the Belgian Product Liability Law of 25 February 1991, itself issued from the European Directive 85/374/CE of 25 July 1985. This law makes the producer liable for damage caused by the defect in his product. Nevertheless, given the conditions set forth by this law, in particular concerning the notion of defect, the recoverable damage and the notion of „product put into circulation“, it is not likely that a farmer will succeed on this basis for the economic damage resulting from the presence of GMO in traditional crops (see *infra*).

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 11 Belgian Courts use the theory known as the „Equivalence of conditions (*équivalence des conditions*)“. According to this theory, the fault is causally linked with the damage if the plaintiff can prove that the damage would not have occurred as it did if the faulty act had not been committed⁵. The faulty act of the GMO farmer should not necessarily constitute an immediate or direct cause of the economic damage⁶. Indeed, all the faulty events in link of *conditio sine qua non* (necessary condition) with the damage are in causal link with the damage, whatever their gravity and whatever the degree of distance with the damage⁷.
- 12 However, in the event of very „indirect“ or „remote“ causality, a Belgian judge will be allowed to dismiss the claim due to the lack of certainty for the causal link⁸. One must recognize that this criterion leads to some degree of

5 Cass., 15 mars 1995, *Larcier Cass.*, 1995, n°355 ; Cass., 26 mai 1990, *Pas.*, 1990, I, 1126 ; Cass., 15 mai 1990, *Pas.*, 1990, I, 1054. J. De Codt, „L’appréciation de la causalité dans le jugement des actions publiques et civiles“, in *Actualités de droit pénal et de procédure pénale*, Bruxelles, éd. Jeune Barreau de Bruxelles, 2001, p. 40, n°3.

6 Cass., 28 mai 1991, *Pas.*, 1991, I, 943 ; Cass., 6 janvier 1976, *Pas.*, 1976, p. 515.

7 I. Durant, „A propos de ce lien qui unit la faute au dommage“, in *Droit de la responsabilité*, CUP, N°68, Bruxelles, Larcier, 2004, p.16.

8 J. De Codt, p. 47, n°11 ; D. Philippe, „La théorie de la relativité aquilienne“, in *Mélanges à R. Dalcq*, Bruxelles, Bruylant, 1994, p. 486 ; R-O. Dalcq, *Traité*, Les Nouvelles, T. V, vol. 2, p. 130, n°2441.

uncertainty regarding claims for economic losses caused by the presence of GMO, since this kind of damage is sometimes at a very distant stage in the chain of causality. The decision will probably be less uncertain in the event of criminal offence (and thus intentional), since it is sometimes allowed that this one absorbs a preliminary negligence⁹.

- 13 Some Courts could be tempted to adapt the application of this theory in such a way that the causal link should require the damage to be „the normal consequence of the made fault” (theory known as of „*causalité adéquate*”)¹⁰. Such tendency is perceptible in the jurisprudence although it remains the minority. Under this theory, a judge could dismiss a claim in compensation for a too distant economic damage from the initial fault. Nevertheless, it is not sure that such a decision would not be broken by the Belgian Supreme Court (*la Cour de cassation*) although the Supreme Court never formally rejected the theory of adequate causality.

(b) How is the burden of proof distributed?

- 14 It falls on the plaintiff to prove the causal link between the fault and the damage (article 1315 of the Civil code) and this causal link must be certain¹¹. Article 1382 does not create a presumption of causality and proof simply that the farmer did not respect legal or administrative prescriptions is not sufficient to establish the causal link between this failure and the damage. Concretely, the farmer victim will thus have to demonstrate that without the faulty use of GMOs or the failure to apply proper segregation measures, his economic damage would not have occurred such as it occurred *in concreto*.
- 15 A scientific certainty would not necessarily be required. The Courts could use a set of serious, precise and concordant presumptions to decide that the link of causality is established with the required certainty. The certainty must be judicial; in practice, a very high degree of likelihood should be considered sufficient by the judge¹².

9 J. De Codt, *op. cit.*, p. 47, n°11 ; F. Glansdorff, „Encore à propos de la causalité: le concours entre la faute intentionnelle de l’auteur du dommage et la faute involontaire de la victime”, *R.C.J.B.*, 2004, p. 272-290.

10 Cass. 11 octobre 1989, *R.G.A.R.*, 1992, n° 12.007, note F. Glansdorff ; Bruxelles, 24 février 1989, *R.G.A.R.*, 1990, n°11618, note F. Glansdorff ; J. De Codt, *op. cit.*, p. 59, n°24.

11 See recently, among others, Cass., 1^{er} avril 2004, *J.T.*, 2005, p. 357, *R.W.*, 2004-05, p. 92, *R.G.D.C.*, 2005, p. 368 ; Cass., 12 octobre 2005, RG. P050262F, sur <http://www.cass.be>.

12 I. Durant, *op. cit.*, p. 27.

(c) How are problems of multiple causes handled by the general regime?

- 16 If the action is based on article 1382 of the Civil Code, each fault in causal link with the damage involves the liability of its author. There is no channelling or absorption of liability on/by one of the tortfeasors¹³. Each one whose fault constitutes a *sine qua non* condition of the same damage, will have to indemnify the victim to the full extent, provided that the damage is indivisible (a liability known as *in solidum*) but the latter shall not be allowed to cumulate compensation for the same loss. Once the responsible has fully indemnified the victim, he will have recourse (a contributory claim) against the other tortfeasors. The contributory share of each of them, if any, will be fixed by the judge according to the gravity¹⁴ of the respective faults or their causal capacity¹⁵.
- 17 If the damage suffered by the farmer is caused both by a fault and a situation of force majeure (for example an Act of God as tornado or a flood), the liability of the tortfeasor shall not be reduced. A force majeure would exonerate him only if it constituted the exclusive cause of the damage. If the plaintiff himself was negligent in causal link with his damage, the liability of the tortfeasor may be reduced or disallowed. However, when the tortfeasor committed an intentional fault, he will not be entitled to invoke the reduction towards the victim¹⁶.
- 18 The claim for compensation based on the defect (*vice*) of a thing (article 1384 of the Civil code) can be undertaken only against the keeper of a thing (*gardien d'une chose*), defined by the Belgian Supreme court as the person who „for its own account, made use of the thing or enjoy it with a capacity direction and monitoring”¹⁷. A splitting of responsibility will be decided if the damage was caused at the same time from a vice of a thing (for example, of a field) and from the fault of the victim. The force majeure will not exonerate the liability of the keeper of the defective thing, except when it constitutes the exclusive cause of the damage.
- 19 Finally, unlike the general civil rules, the Belgian Product liability Act of 25 February 1991 channel (*canalise*) the liability on the producer and consequently offers the plaintiff a defined list of interlocutors¹⁸. Therefore, the

13 Except in the event of an intentional act. See *surpa* no. 14.

14 Cass., 29 novembre 1995, *Larcier Cass.*, 1995, n°1319 ; Cass., 8 octobre 1992, *Pas.*, I, 1124.

15 Cass., 7 novembre 1990, *Pas.*, 1991, I, 249 ; Cass., 29 janvier 1988, *Pas.*, 1988, I, 627.

16 Cass., 6 novembre 2002, *J.L.M.B.*, 2003, p. 808, *J.T.*, 2003, p. 579 ; *Bull. Ass.*, 2003, p. 815, *R.W.*, 2002-2003, p. 1629.

17 J-L. Fagnart, „La responsabilité civile: Chronique de jurisprudence 1985-1995“, in *Les Dossiers du JT* n°11, Bruxelles, Larcier, 1997, p. 78.

18 See, on this topic, G. Gathem, „La garantie des biens de consommation dans son environnement légal: la sécurité des produits et la responsabilité du fait des produits“, in *La*

manufacturer of seeds or the one who put his name or his trade mark on it could be considered as a producer within the meaning of the law, but not the mere farmer, at least as long as its crop is attached to the ground, since the law only applies to products put into circulation. However, in accordance with article 10 of the law, the producer's liability will be limited if it proves the fault of the victim or the fault of a third party. In situations where several producers are held liable for the same damage, they shall be liable jointly and severally pursuant to article 9 (*responsabilité solidaire*), without prejudice to their rights of contributions.

3. Standard of Liability

(a) *In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?*

- 20 Except in the event of physical harm, the mere fact of causing damage (such as the presence of GMO) does not in itself constitute a fault within the meaning of article 1382. The victim must prove the elements of the fault.
- 21 According to a well-established jurisprudence, the mere transgression of a legal or administrative provision, if it imposes a determined behaviour on the concerned person in a precise way, constitutes in itself a fault, provided that this fault is committed freely and consciously¹⁹. The fault of a farmer could thus result from the mere breach of a precise provision of the royal decree of 21 February 2005: a voluntary dissemination of GMO without the authorization of the authority, non compliance with the conditions of cultivation set forth in the administrative authorisation in so far as they are precise enough. Moreover, particular attention must be given to the texts mentioned supra no. 6. It results from it that in Belgian Tort Law, the proof of the fault will be facilitated by the adoption of written rules imposing precise standards for the cultivation of GMO rather than obligations of means.
- 22 Besides the violation of a precise legal regulation by the farmer, a fault in the sense of article 1382 could also result from the violation of a general duty of care evaluated in the light of the *bonus pater familias*. The victim will then have to convince the judge that the defendant's behaviour is a type of conduct that a normal and careful farmer would not have adopted under the same cir-

nouvelle garantie des biens de consommation et son environnement légal, Bruxelles, La Chartre, 2005, p. 198.

19 Cass., 3 octobre 1994, *J.T.*, 1995, p. 26 (Breach of the „Règlement Général pour la protection du Travail“); Cass., 22 février 1989, *Pas.*, 1989, I, 631 (Breach of the „Code de la route“) and, in the field of government's liability, Cass., 13 mai 1982, *J.T.*, 1982, p. 772 et concl. Du procureur général Velu, *R.C.J.B.*, 1984, obs. R-O. Dalcq. Voy. aussi B. Dubuisson, „Faute, illégalité et erreur d'interprétation en droit de la responsabilité civile, *R.C.J.B.*, 2001, pp. 28-72; L. Cornelis, *Principes du droit belge de la responsabilité extra-contractuelle*, vol. I., Bruylant, Bruxelles, 1991, p. 65, n°40.

cumstances, while avoiding an appreciation *ex post*. It is the same reasoning that the Belgian judge will hold in the case of an infringement of a provision imposing an obligation of means such as article 20 of the royal decree of 21 February 2005 (obligation to take all adequate or necessary measures to protect health or to respect such measures).

- 23 Nevertheless, even in the event of a transgression of a written and precise standard, the author of the fault will be entitled to avoid liability by establishing the existence of a cause for justification (*cause de justification*) such as the invincible error (*erreur invincible*) or the state for need (*l'état de nécessité*). One must note in this regard, that a licence to cultivate GMO would not exempt its holder of its duty of care nor of its duty to comply with the legal and administrative rules, as well as of its duty not to inflict to others a disorder that exceeds the extent of the normal disadvantages of vicinity (on the theory of the disorders of vicinities, see *infra* no. 30)²⁰.
- 24 Lastly, one has to point out that Belgian Tort Law does not recognize the theory of „aquilienne relativity” (*relativité aquilienne*) which would make it possible to deprive a victim of the benefit of the compensation according to the object and the finality of the infringed rule²¹. Thus, the fact that a rule aims at protecting human health and the environment rather than property should normally not prevent the victim from bringing a suit, except if this element is an explicit condition of the fault. For example, the duty to take necessary measures to protect human health and the environment (article 20 of the Royal decree of 21 January 2005).

(b) To the extent a general strict liability regime may be applicable, please describe its requirements for establishing liability.

- 25 The Belgian Product Liability Act of 25 February 1991 does not require the victim to demonstrate the fault of the producer. It is sufficient for him to establish that his damage was caused by the defect of a product. According to article 5, a product is defective when it does not provide the safety which one is legitimately entitled to expect, taking all circumstances into account, including the presentation of the product, the normal or reasonably foreseeable use of the product, and the time when the product was put into circulation.
- 26 However, one must note that the interest of this Law seems to be rather limited with regards to compensation for economic losses due to the presence for GMOs in traditional crops for the following reasons:

20 Cass., 27 avril 1962, *Pas.*, 1962, I, p. 938 ; Cass., 27 novembre 1974, *Pas.*, 1975, I, p. 341.

21 D. Philippe, „La théorie de la relativité aquilienne“, in *Mélanges à R. Dalcq*, Bruxelles, Bruylant, 1994, pp. 467-486.

- The notion of product: although, since 4 December 2000, agricultural products fall under the scope of the law, even if they did not undergo any industrial processing, the law still requires that the product must be put into circulation (article 8.a). This requirement entails the exclusion of cultivations and crops that were not yet marketed²². On the other hand, the law could apply to the marketed seeds that would contain GMO. The law would then apply independently of the existence of a contract of sale. Moreover, a field might not be regarded as a „product” since the law does not apply to immovables. To the contrary, the notion of product encompasses movables which are installed in immovables²³.
 - The notion of defect: The notion of defect exclusively focuses on safety. The defect shall thus be determined by reference to expectations of the public at large regarding safety and health of consumers and property, but not to the fitness of the product for use. The issue will be to convince the judge that, under the particular circumstances of the given case, the presence of GMO constitutes a defect within this meaning²⁴.
 - Limitations relating to the damage set forth in article 11 (see *infra* 4.a).
 - Many causes of exemption of liability. The producer can avoid liability if it establishes that the product was neither manufactured for the sale or any other form of distribution for economic purpose, nor manufactured or distributed by him in the course of his business (article 8.c). The simple fact that the cultivation of GMO is simply experimental should thus preclude applying the Product liability law.
 - In the same way, the producer will not be held liable if he proves that at the time he put the product into circulation, the state of scientific and technical knowledge was not such as to enable the existence of the defect to be discovered (article 8.e). The evaluation of this cause of exemption will thus depend on the tools available (and accessible to the producer) to detect the presence of GMO at this time.
 - In addition to these causes of exemption, the producer can try to limit his liability by showing that the negligence of the victim or that of a third party contributed to the occurrence of whole or part of the damage (article 10).
- 27 Article 1384 subparagraph 1 of the Civil Code creates a presumption of liability against the keeper of a thing (*le gardien d'une chose*). The keeper will be liable as soon as a damage is caused by the vice of a thing of which he has to guard, independently of the origin of the vice and in particular, whether he

22 See, G. Gathem, *op. cit.*, p. 214.

23 G. Gathem, *op. cit.*, pp. 192-193.

24 Exposé des motifs, Ch. sessé ord., 1261/1, 1989-90, p. 12 ; G. Gathem, *op. cit.*, p. 208..

committed a fault or not. According to the Belgian Supreme court, the vice of a thing consists of „an abnormal characteristic which renders it, in certain circumstances, likely to cause a damage”²⁵.

- 28 Let us imagine the case where the presence of GMO in a traditional crop belonging to A is due to the cultivation of GMOs in a bordering field under the guard of B which was transported by the wind or by water. A should establish that the presence of GMO in the field of B constitutes an abnormal characteristic of this field. However, if a genetically modified cereal field (an immovable) can constitute a thing within the meaning of article 1384 subparagraph 1 of the Code²⁶, it would not automatically render the field affected by a vice for only this reason, and especially when the dissemination of GMO were authorized and that this one is carried out in compliance with the lawful conditions. More generally, there will be no vice if the presence of GMO in this field is regarded as being „normal”²⁷.
- 29 Paradoxically, it is probable that the courts would imply the existence of a vice from the accidental presence of a genetically modified stock on a field without genetically modified cereal. The circumstance that the keeper ignores the presence of GMO, or could not have known it, is not relevant²⁸. Article 1384 subparagraph 1st could thus make the keeper of a field or a river liable whereas it would not be at the origin of the vice and would not know the existence of it. However, the keeper will be entitled to avoid liability by invoking an exonerating cause (an Act of God or the fault of a third party) provided that it is the exclusive cause of the damage.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 30 Belgian courts regularly apply the theory of the disorders of vicinity in cases of environmentally harmful acts (the „*théorie des troubles de voisinage*” based on article 544 of the Civil Code). The interest of this specific liability regime for our purpose is that it does not require the existence of fault. The issue of a license to cultivate GMO, even regular and definitive, will not pre-

25 For instance, Cass., 1^{er} décembre 1994, *J.T.*, 1995, p. 340, *Dr. circ.*, 1995, p. 169 ; Cass., 9 mars 1989, *J.T.*, 1989, p. 732.

26 L'article 1384 alinéa 1er s'applique aussi aux choses immobilières, H. Vanderberghe, M. Van Quickenborne et L. Wynant, „Overzicht van rechtspraak: aansprakelijkheid uit onrechtmatige daad (1985-1993)”, *T.P.R.*, 1995, p. 1290, n°65.

27 In the same sense, concerning a field dedicated to the deposit of wastes: Civ. Liège, 15 avril 1994, *Am.-Env.*, 1996, p. 237.

28 Cass., 29 octobre 1987, *Pas.*, 1987, I, p. 254 ; Cass., 21 mars 1979, *Pas.*, 1979, I, p. 844 ; Cass., 9 novembre 1979, *Pas.*, 1980, I p. 320.

vent the introduction of a claim based on the theory of the disorders of vicinity²⁹.

- 31 The basic rule can be stated as follows: „Whoever caused the disorder of vicinity by a fact, an omission or whatever behaviour is obliged to compensate for the damage”³⁰, provided that it results from it an excessive disorder i.e. a burden which exceeds the extent of the ordinary disadvantages of the vicinity³¹.
- 32 This theory requires a connexion between the fields, not necessarily a relation of immediate vicinity, but in a relation of close vicinity³².
- 33 The rural or industrial character of an area is likely to influence the appreciation of the disorder³³. One indeed has to expect that a judge will be more reluctant to accept the complaint when the applicant acts in an industrial area or a well-known area for its activities of cultivation of GMO. It might even be decided that those who settle near a culture of GMO should bear the risk, by voluntarily deciding to undergo the whole or part of the damage of which they complain for and that it would be a fault. This is about the theory of *preoccupation*, the application of which remains, however, a minority³⁴. Courts sometimes refer to the evolution of the normal requirements of the life in society and might decide that the contamination by GMO belongs to the ordinary disadvantages of the life in society or in certain rural or industrial parts of the territory. In addition, one can suppose that the Belgian courts will be more favourable for actions based on requirements relating to the health or the safeguarding of a healthy environment, by calling upon article 23 of the Constitution if necessary, rather than on commercial reasons³⁵.
- 34 Unlike article 1382 which provides for a reparation of the damage to full extent, the theory of the disorders of vicinities only allows the plaintiff to ob-

29 See namely Civ. Anvers, 25 juin 1981, *Pas.*, 1982, III, p. 66 et J-F. Neuray, *op. cit.*, p. 694 ; Gand, 11 octobre 1990, *T.G.R.*, 1990, p. 121 ; J. Hansenne, „Les biens”, *Précis*, t. II, Faculté de droit de Liège, 1996, p. 826.

30 Cass., 7 décembre 1992, *J.T.*, 1993, p. 473, obs. D. Van Gerven.

31 N. Verheyden-Jeanmart, P. Coppens et C. Mostin, „Examen de jurisprudence: les biens (1989-1998)”, *R.C.J.B.*, 2000, p. 308.

32 For instance, Bruxelles, 15 mai 1963, *J.T.*, 1963, p. 695 or Civ. Gand, 8 mai 1997, *R.G.D.C.*, 1988, p. 577.

33 See in R-O. Dalcq et G. Schamps, „Examen de jurisprudence (1987-1993). La responsabilité délictuelle et quasi-délictuelle”, *R.C.J.B.*, 1995, pp. 573-586 ; N. Verheyden-Jeanmart, P. Coppens et C. Mostin, „Examen de jurisprudence: les biens”, *R.C.J.B.*, 2000, p. 328.

34 Civ. Anvers, 22 novembre 1993, *R.W.*, 1995-96, p. 160 ; Liège, 19 mars 1993, *R.R.D.*, 1993, p. 393 ; J.P. Gand, 11 août 1997, *T.G.R.*, 1998, p. 14 ; J-F. Neuray, p. 689 qui cite Aix, 17 février 1966, *D.*, 1966, p. 281, obs. F. Derrida.

35 J-F. Neuray, *op. cit.*, p. 695.

tain „a fair and proper compensation for the broken balance” corresponding to the part of damage which exceeds the limit of the normal disadvantages³⁶.

- 35 On this basis, the farmer could claim the limitation of a close culture, if necessary under penalty, unless this measure is at the origin of a new imbalance³⁷. Considering this, the Belgian Supreme Court seems to limit compensation in kind („in natura”) when the disorder was caused by a non-faulty fact (for example, a culture in the compliance with the rules). The Supreme Court refuses to order the complete prohibition of the fact and this, even if „absolute prohibition is the only manner of restoring broken balance”³⁸. The judge could then prescribe particular protection measures or the grant of an allowance³⁹.

4. Damage and remedies

(a) How is damage defined and measured?

- 36 No statutory definition of recoverable damage is given under articles 1382 and 1383 of the Belgian Civil code. The violation of a subjective right is not required but the plaintiff will have to establish that a stable and legitimate interest has been violated⁴⁰. It is generally accepted that the damage exists as soon as the victim establishes a negative difference between its patrimonial or moral situation created by the presence of GMO and its patrimonial or moral hypothetical situation without the presence of the GMO. The damage will result from this comparison⁴¹.
- 37 Among the elements of the recoverable damage, Belgian legal scholars and jurisprudence traditionally distinguish between „damage to property” and „damage to persons”, the latter being the consequence of a physical injury or a death. One also opposes „material damage” which covers the patrimonial consequences of these attacks and the „moral damage” which is the kind of damage consequent to an infringement of extra-patrimonial interests of the victim. According to most authors, there is a „pure economic damage” when the dep-

36 Cass., 6 avril 1960, *R.G.A.R.*, 1960, 6557, note R-O. Dalcq, *R.C.J.B.*, 1960, p. 257, note J. Dabin. For instance, Mons, 16 juin 1987, *Pas.*, 1987, II, p. 198. N. Verheyden-Jeanmart, P. Coppens et C. Mostin, „Examen de jurisprudence: les biens”, *R.C.J.B.*, 2000, 346.

37 N. Verheyden-Jeanmart, P. Coppens et C. Mostin, „Examen de jurisprudence: les biens”, *R.C.J.B.*, 2000, p. 347.

38 Cass., 14 décembre 1995, *Bull.*, 1995, p. 1163 et *J.L.M.B.*, 1996, p. 966, obs. P. Henry.

39 N. Verheyden-Jeanmart, P. Coppens et C. Mostin, „Examen de jurisprudence: les biens”, *R.C.J.B.*, 2000, p. 352.

40 J-L. Fagnart, „L'évaluation et la réparation du préjudice corporel en droit commun”, *R.G.A.R.*, 1994, n°12248 ; R-O. Dalcq et G. Schamps, *op. cit.*, p. 738.

41 R-O. Dalcq, *Traité de la responsabilité civile*, Tome II: le lien de causalité, le dommage et sa réparation, Larquier, Bruxelles, 1962, p. 338.

rivation of financial advantages occurs independent of death or personal injury or damage to a tangible object⁴².

38 As regards recovery, the general rules do not operate any distinction between these different subdivisions of the damage: there is no exclusionary rule within the framework of article 1382 to 1384. In theory, the economic losses resulting from the presence of GMO are thus recoverable to full extent, like the other kinds of damage, since they satisfy three requirements: the damage has to be certain (1), personal (2) and not already indemnified (3)⁴³. Nevertheless, because of the more „abstract” and „indirect” or „remote” character of pure economic loss related to the presence of GMO, the proof of the different conditions of the liability will be more complicated, in particular concerning:

- The „certainty” of the damage. It will be difficult for a farmer to establish that he would certainly have earned a higher income in the absence of GMO in his crop. However, in some cases, the loss of an opportunity (*la perte d'une chance*) will be recoverable when it appears that this opportunity was certain or at least reasonable but not merely hypothetical⁴⁴. Nevertheless, as we will see it, the recent jurisprudence of the Supreme Court tends to limit the application of this theory to certain situations (see *infra* no. 45 ff.).
- The „foreseeability” of the damage. Some decisions consider that the foreseeability of the damage is a condition of the fault when it consists in a lack of prudence or precaution⁴⁵. Therefore, the defendant could avoid the consequences of his negligence provided that a judge considers that he could not reasonably predict the emergence of the damage.
- The fault of the victim. The full compensation for the economic damage will be reduced when the damage is also caused by the victim's fault. The latter will have to bear the fraction of losses resulting from his own negligence. For instance, when the plaintiff himself did not comply with rules on cultivation or did not take the precautions which a normally careful farmer would have taken (for example, to isolate his field from the other) and whose fault is in causal link with his economic losses.

42 See W. Van Boom, „A comparative perspective”, in *Pure economic Loss*, Wien, Springer, 2004, p. 3; J-L. Fagnart, „Recherches sur le droit de la réparation”, in *Mélange R-O Dalcq*, Bruxelles, Bruylant, 1994, p. 147.

43 As The Supreme Court reminds it: for instance, Cass., 13 avril 1995, *J.T.*, 1995, p. 649.

44 J-L. Fagnart, *op. cit.*, p. 24.

45 See R-O. Dalcq, „La prévisibilité du dommage est-elle une condition nécessaire de la faute ?”, in *Hommage à J.Heenen*, Bruxelles, Bruylant, 1994, p. 83 et s. ; L. Cornelis, „Le sort imprévisible du dommage prévisible”, note sous Cass., 11 avril 1986, *R.C.J.B.*, 1990, p. 79.

- Good faith: The victim must act in Good faith and could thus have to take reasonable steps to mitigate his losses⁴⁶ (see infra 53-54).
 - The „certainty” of the causal link. Courts and scholars unanimously consider that reasonable limits should be set to the extent to which remote economic effects of a tort should be made compensable. Under Belgian tort law, compensation has thus to be refused when the link of causality between damage and the initial fault is not sufficient any more⁴⁷. Let us note that, as regards contractual liability, economic damage must be a direct continuation of the contractual breach to be recoverable under article 1151 of the Civil Code.
 - No duplication of compensation for the same loss⁴⁸. One could probably argue before the Belgian courts that the compensation must stop where other elements start absorbing the damage (for example, when the raising of prices makes it possible to reflect or „internalise” the additional costs resulting from GMO, the payment of unemployment benefits).
- 39 Unlike the Civil Code, the Belgian Product Liability Law limits the recoverable damages. According to article 11, damage caused to the person are fully covered (§.1), but the damages caused to property are only recoverable if they regard assets which are of a type normally used or consumed for private reason, and if they have been used by the injured party mainly for private reasons. Moreover, the damage caused to the product itself is never indemnified (§ 2)⁴⁹. Therefore, when the economic losses resulting from the presence of GMO are a consequence of an attack to crops cultivated with a professional aim (for example: corn fields intended for commercial sale), this damage will not be recoverable on the basis of this law. It is undeniable that this exclusionary rule considerably limits the practical utility of the law for our purpose⁵⁰. In the same way, with regard to economic loss independent of harm to the crop owned by the victim, it should be considered, in the absence of similar existing case law in Belgium, that recovery should not be granted on the basis of this law because of the professional character of the economic losses and its finality which is the safety of persons and property⁵¹.

46 B. Hanotiau, „Régime juridique et portée de l’obligation de modérer le dommage dans le droit de la responsabilité civile contractuelle et extracontractuelle”, *R.G.A.R.*, 1987, n°11.289.

47 I. Durant, „A propos de ce lien qui doit unir la faute au dommage”, *op. cit.*, p. 11 et s.

48 Cass., 3 mai 1988, Pas., 1988, I, 1061, J.T., 1989, p. 112.

49 P. Henry et J-T. Debry, „La responsabilité du fait des produits: derniers développements”, in *Droit de la responsabilité: morceaux choisis*, CUP, vol. 68, Bruxelles, Larcier, 2004, p. 183.

50 On this topic, see G. Gathem, *op. cit.*, p. 205-206 and the quoted authors.

51 En ce sens, G. Gathem, *op. cit.*, p. 206 ; B. Dubuisson, „Libres propos sur la faute aquilienne” in *Mélanges offerts à M. Fontaine*, Bruxelles, Larcier, 2003, p. 159 ; M. Faure et

- 40 In theory, the economic losses resulting from the presence of GMO could be compensated *in natura* (for example: the prescription of measures intended to put an end to the harmful state) provided that the plaintiff requires it, that it is possible and that it does not constitute an abuse of right⁵².

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 41 These losses will be recoverable on the basis of article 1382 only if the farmer proves that they are certain and that they result from a fault. It is likely that jurisdictions will be more reluctant to grant compensation for economic losses resulting from the fear of the consumers than for the losses resulting from the concrete and actual admixture. Indeed, the more remote the damage is from the act generating liability, the more its certain character will be tenuous and this makes it hypothetical.
- 42 Then, the plaintiff will have to introduce evidence that his economic loss related to the fear of consumers, due to a faulty act of a nearby farmer and that this fault is in causal link with the fear of consumers and also with the economic loss which results from it. And yet, the mere cultivation of GMO does not constitute a fault in itself, subject to the authorization, even if this cultivation generates fears.
- 43 Furthermore, it will have to be established that without the culture of GMO in the vicinity, consumers would not have had this fear. Recovery will not be allowed when the lowering incomes due to the fear of consumers would have appeared without the GMO cultivation in the vicinity.
- 44 Finally, it is worth noting that this kind of economic loss could have been generated by a fault of the authorities or the media. The following cases could occur:
- Under special circumstances, the grant of an authorization could deviate from the behaviour of a normally careful administration, – for instance, a breach of the precautionary principle (*principe de precaution*) –, and then constitutes a fault in the sense of article 1382 of the Civil Code.
 - The administration that has not set forth the proper conditions to limit the risks of contamination, might be deemed negligent.

W. Vanbuggenhout, „Produktaansprakelijkheid. De Europese richtlijn: harmonisatie en consumentenbescherming“, *R.W.*, 1987-88, p. 12, n°25.

⁵² Cass., 21 avril 1994, *Arr. Cass.*, 1994, p. 392 ; Cass., 20 janvier 1993, *Pas.*, 1993, I, 67, *J.L.M.B.*, 1993, p. 635.

- The administration should be held liable when it has generated this fear by a non-suitable information campaign.
- Etc

(c) *Where does your legal system draw the line between compensable and non-compensable losses?*

- 45 In theory, all the economic losses of the farmers of an area, and even of a third country, shall be fully indemnified under the Belgian tort law since those are certain that they result from a faulty act of a third party and that they are causally linked with this faulty act⁵³. The certainty of damage as well as causal link must be based on convincing elements leading to a real certainty, which can however rise from a very high and not contradicted probability⁵⁴.
- 46 Nevertheless, some of these losses will present so high a degree of distance in comparison with a quite localised faulty contamination that the judge will refuse to compensate them. For these cases, the borderline will then be drawn by the application of the normal requirements of the fault-based liability (see supra no. 36 ff.). Therefore, compensation shall not be allowed when the judge notes that the certainty of the causal link or the certainty of the damage does not exist any more. The point will then be that it will be more difficult for the farmer who is geographically far away from the faulty cultivation to prove the certainty of the causal link between his economic losses and the faulty contamination than for the immediate neighbour of this culture.
- 47 A farmer might thus not be able to establish the causal link with sufficient certainty between a fault of a nearby farmer and his lowering incomes. In this case, the plaintiff can try to demonstrate that the faulty cultivation made him lose a real opportunity to earn an amount of income (to be determined) and claim recovery for the loss of this opportunity. To the contrary, the damage resulting from its loss is not recoverable when the opportunity is only hypothetical. In the absence of precise elements of valuation, the economic value of the lost opportunity will be evaluated *ex æquo and bono*, which cannot be equal to the advantage that this opportunity would have gotten. One has to note that the Supreme Court recently issued limits regarding the application of the theory of the loss of an opportunity by reaffirming that it still requires the causal link to be certain⁵⁵. Nevertheless, the majority of Belgian authors are of the opinion that the scope of this jurisprudence only concerns the loss of the

53 Unlike some non-fault-based liability regime, such a Product Liability, which imposes a financial ceiling.

54 J-L. Fagnart, „Petite navigation dans les méandres de la causalité”, *R.G.A.R.*, 2006, 14.080, n°41.

55 Cass., 1^{er} avril 2004, *J.T.*, 2005, p. 357, *R.W.*, 2004-05, p. 92, *R.G.D.C.*, 2005, p. 368 ; Cass., 12 octobre 2005, RG. P050262F, sur <http://www.cass.be>.

possibility of avoiding the occurrence of a risk when this risk had already occurred. It should thus not prevent recovery of a certain loss of a hope to make some profit margin or to conclude a worthy sale of cereals⁵⁶.

(d) Which are the criteria for determining the amount of compensation in general?

- 48 The common rules on liability do not impose a financial ceiling to compensation. The Supreme Court regularly reminds parties about the principle of full recovery, i.e. the victim has to be compensated for its entire damage. But the full recovery of damage also contains its own limit: the reparation shall not exceed the amount of the damage. Therefore, the plaintiff is not entitled to claim compensation for a damage that has already been indemnified. Moreover, Belgian Tort Law does not recognize the notion of punitive damage (*dommages punitifs*).
- 49 The valuation of the amount of compensation will depend on the preliminary identification of the damage:
- If the presence of GMO did nothing but generate additional expenses (for example, costs of labelling), only the refunding of these expenses shall be granted.
 - If the contaminated crops have been sold, but at a lesser value, only the depreciation shall be compensated.
 - In the event of withdrawal and/or destruction of the crop, the expenses generated by it will be compensated by the responsible person.
 - If the presence of GMO prevented the fulfilment of a sale contract on the contaminated products, the loss will consist of the deprivation of the profit expected for the fulfilment of this contract.
 - Etc
- 50 The evidence of the amount of these losses shall be brought by all means of right subject to a contradictory rule (*principe du contradictoire*). It could in particular be based on statistics, the prices of the market, the incomes of previous years, etc. If necessary, a legal expert can be ordered by the judge in order to value these losses after due hearing of the parties. The fees for this expert are in theory to be paid by the succumbing party.

⁵⁶ Voy. par exemple, Civ. Bruges, 27 septembre 1999, *R.W.*, 2000-01, p. 951 and the decisions quoted in I. Durant, *op. cit.*, p. 35.

- 51 If the damage is certain in its existence but there is a lack of an accurate element to value its amount, the judge will most likely fix the allowance *ex æquo and bono* by taking account of all the elements likely to exert an influence on this calculation (for instance, the market price for such cereal at a given moment).

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 52 Unlike the Civil code, the law of 25 February 1991 provides for the deduction of a fixed amount of 500 euros for damage to property in order to avoid litigation in an excessive number of cases. On the other hand, the Belgian law did not set a limit for the total liability of the producer for serial damages caused to persons although the European directive allowed it (article 16). Limitations of liability can also be provided by contract.

- 53 No rule formally forces the victim to restrict its damage. Nevertheless, the victim must act in good faith and this requirement could require him to take reasonable step to mitigate his damage. The victim will bear the aggravation of the damage caused by his own negligence⁵⁷.

- 54 Therefore, the victim will probably not be entitled to claim compensation for all his losses if he refused to clear part of his contaminated crops where he had the opportunity to do so without further damage being caused.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 55 The farmers can subscribe an insurance RC exploitation.

(g) Which procedures apply to obtain redress in such cases?

- 56 There is no specific procedure. The action must be brought before the competent court and in compliance with the rules of the Code of Civil Procedure (*Code judiciaire*).

- 57 However, it must be stressed that liability normally expires after a length of time. Indeed, the limitation period for proceedings as regards non-contractual civil liability, is „5 years as from the day which follows that where the injured person became aware of the damage or its aggravation and the identity of the liable person” and in any case, 20 years from the date on which the fact generating the damage occurred (article 2262bis of Civil Code). As regards defective products, the law of 25 February 1991 provides for a limitation period of 3 years starting from the day on which the plaintiff became aware, or should

⁵⁷ R-O. Dalcq et G. Schamps, *op. cit.*, p. 737.

reasonably have become aware, of the damage, the defect and the identity of the producer.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

58 No.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

59 The Royal decree of the 21 January 2005 sets forth duties of monitoring for GMO farmers. The sampling and testing justified by this monitoring will rest on these farmers.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

60 If the sampling and testing costs are incurred within the framework of a proceeding, for example a claim for the recovery of economic losses, it is in theory the succumbing party to bear them. In order for the judge to order an expert, it will have to be established that there is a *prima facie* ground for liability.

61 To the contrary, where it is about a proceeding brought before a repressive jurisdiction, for example, when the civil liability results from the responsibility of a penal infringement, the expert fees ordered by the judge, will be supported by the State.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

62 See supra no. 60-61.

IV. Cross-border issues

63 Belgian International Private law does not provide for any specific rules.

1. Rules of jurisdiction⁵⁸

- 64 In the event of the application of the „Brussels I” Regulation, the jurisdiction to which the defendant can be assigned, under the terms of article 5, 3° and 4°, is „in the courts of the place where the harmful event occurred or may occur” i.e. the „place where the damage occurred either the place of the causal event which is at the origin of this damage”⁵⁹, or „as regards a civil claim for damages or restitution which is based on an act giving rise to criminal proceedings, in the court seized of those proceedings, to the extent that that court has jurisdiction under its own law to entertain civil proceedings”. When jurisdiction is based on the place of the occurrence of the damage, only the direct damage, which must be local, must be taken into account. Thus in the case of damage undergone by a Belgian company because of the losses of one of its German subsidiaries consecutive to the presence of GMO, it is the German subsidiary which is the direct victim as this damage occurred in Germany. The judge will not be competent for other damage located abroad.
- 65 As regards cases falling outside the scope of „Brussels I” Regulation, the Belgian Code of International Private Law allows the competence the of Belgian courts to take precedence if the act generates liability or the damage occurs in Belgium (article 96).

2. Rules of conflict of laws

- 66 The Belgian Code of International Private Law lists points of attachment aiming at indicating the law of the country with the closest links to the situation (article 99)⁶⁰:
- The residence of the parties in the same country at the time of occurrence of the harmful fact;
 - For lack of habitual residence in the same country, the law of the Country where the whole of the liability’s components, namely the act causing liability and the damage, did occur but „entirely”;

58 F. Rigaux et M. Fallon, *Droit international privé*, (3ed.) Bruxelles, Larcier, 2005, pp. 919-923.

59 C.J.C.E., aff. 21/76, 30 novembre 1976, Bier c. Mines de potasse d’Alsace, *Rec.*, 1976, 1735.

60 F. Rigaux et M. Fallon, *op. cit.*, p. 923.

- For the other cases, the law of the country with the closest links to the concerned obligations.

3. CYPRUS

Louise Zambartas

I. Special Liability or Compensation Regimes

- 1 There is no special GMO regime in Cyprus and the Government has proved unwilling to share its plans.
- 2 In fact, at the present time GM crops are illegal in Cyprus and this seems likely to remain the case for the foreseeable future. Which, in theory, means the Government does not have to address many of these issues.
- 3 There is almost no chance at all that a neighbouring conventional/organic farmer may get compensation for his economic loss given the political situation in Cyprus (discussed further below). In addition, there is a policy of no recovery for economic losses under the Cyprus tort law. In fact there is a rather strong non compensatory culture in evidence in the courts, generally.
- 4 There is no alternative form of compensation mechanism under Cyprus law.
- 5 As no liability regime exists, either exclusive or otherwise, a plaintiff would be forced to reply upon the general law. The only relevant legislation in Cyprus regarding this area of the law is the general law of tort, which is discussed in detail below.
- 6 The Government has stated that legislation for liability due to admixture of GMOs is being discussed by an ad-hoc group of experts. It is very much at the initial stages of preparation of the specific regulations.

II. General Liability or other Compensation Schemes

1. Introduction

- 7 The only relevant legislation in Cyprus regarding this area of the law is the Civil Wrongs Law.¹ The legislation is divided as follows:
 - Part I, Preliminary;
 - Part II, Rights and Liabilities of Certain Persons;

¹ Cap 148, as amended by Law 87 of 1973, Law 54 of 1978, Law 156 of 1985, Law 41 of 1989, Law 73 (1) of 1992, Law 101 (1) of 1996, Law 49 (1) of 1997, Law 29 (1) of 2000 and Law No. 160(I)/2003.

- Part III, Civil Wrongs and Defences to Certain Actions Therefore;
 - Part IV Miscellaneous Provisions as to the Recovery of Remedies; and
 - Part V, Miscellaneous.
- 8 Section 29(1)(c) of the Courts of Justice Law of 1960 (Law 14 of 1960) provides that the Common Law and the principles of equity apply in Cyprus, provided that they do not conflict with the Constitution of the Republic or with Laws passed by the House of Representatives. In the case of *Peletico Plasters Ltd v George Moaaskalli and Others*,² the Supreme Court, inter alia, stated that the Civil Wrongs Law, as amended by Law 156 of 1986 with the Supreme Court's judgments, shows that no exhaustive codification of the law of torts exists since the Cypriot courts apply the English Common Law according to the provision of section 29(1)(c) of the Courts of Justice Law of 1960.
- 9 Cyprus follows English tort law in many instances, but there is no requirement for the courts to follow English decisions and they do not form binding precedents. The Cypriot courts exercising civil jurisdiction have never attributed a binding effect to the various English judgments; these are only considered to be persuasive since the Cypriot courts over the years have developed their own precedents in this area of the law and, in reaching a decision, the courts consider the facts and circumstances of each case separately.
- 10 In recent times, there has been a marked move away from English decisions. It is likely that an English precedent allowing recovery for economic loss in the circumstances of interest to us, would not be followed in Cyprus and the culture of non recovery would prevail.
- 11 Historically, torts under Cyprus Law are divided into two main classes, namely:
- Trespasses; and
 - Actions „on the case“.
- 12 A trespass is a direct and forcible injury and actions „on the case“ are actions for damage caused otherwise than directly and forcibly. (In the case of GMOs, actions would fall within the second category and clearly it is this category which concerns us here).
- 13 Nevertheless, remedies now depend on the substance of the right and not on whether they can fit into a particular framework. The interests which the law of torts will protect include physical harm, both to persons and to property; a person's reputation, dignity or liberty; the use and enjoyment of his land; and his financial interests. Whether a particular type of harm will entitle the victim

2 Civil Appeal 9356, 13 February 1998.

to redress varies considerably with the manner in which it occurred. In broad terms, there is a spectrum of conduct ranging from intentional through careless to accidental.

- 14 In the Civil Wrongs Law, there is no concrete classification of the offences which exist. Despite this, it can be said that the various offences included in the law are classified as those concerning persons, e.g. battery and those concerning interference with interests in property, e.g. trespass to land. In any society, conflicts of interest are bound to lead to the infliction of losses which increase with the level of social interaction. However, it is only when an interest is recognised at law that it gives rise to a legal right, the violation of which constitutes a „wrong“. An accurate definition regarding this area of the law is impossible, bearing in mind the various functions of the law, the different types of torts, and the interests which the law purports to protect. Most of the existing definitions are either too abstract or too cumbersome to be of any practical value.
- 15 According to section 8 of the Civil Wrongs Law, a person under the age of 18 years may sue and, subject to the provisions of section 9, be sued in respect of a civil wrong, provided that no action shall be brought against any such person in respect of any civil wrong when such wrong arises directly or indirectly out of any contract entered into by such person.
- 16 Under section 61 of the Civil Wrongs Law, compensation in respect of any civil wrong is recoverable only once. Liability in this area of the law may arise in one of several ways.
- 17 First, liability may be imposed as a legal consequence of a person's act or omission, if he is under a legal duty to act. Liability may also be imposed as the legal consequence of an act or omission of another person with whom he stands in some special relationship, such as that of master and servant, known as „vicarious liability“³.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 18 An important element of the foundation of an action in tort is the relation between the original activity or omission and the consequences to the plaintiff. The issue of causation is of greater importance where damage is a necessary element in liability. However, a blameworthy person is not liable for all the damage he can be said to have „caused“.

³ Civil Wrongs Law, ss 13 and 14; Brodie and Others v Theodourou and Others, Civil Appeal 9497, 22 September 1998.

- 19 Causation is a complicated notion. In order to attribute responsibility plaintiffs have traditionally been required to persuade the judge that it was more likely than not that the particular defendant's conduct contributed to the occurrence of the harm in issue. If a person manages to persuade the judge of that, even by a bare margin, then he should obtain full compensation. Causation is a question of fact.
- 20 In deciding this issue, the test applied by the courts is neatly illustrated in *Barnett v Chelsea and Kensington Hospital Management Committee*,⁴ known as the „but for“ test. Once a causal connection between the defendant's conduct and the plaintiff's harm is established in this sense, it must be asked whether this connection is sufficient for it to be fair to impose liability on the defendant. Apart from causation, the following points relating to the issue of „remoteness of damage“ must be considered:
- The damage must be of a kind recognised by law.
 - There must be foreseeability of damage to the plaintiff. Foreseeability is a question of fact. As Lord Reid said, „The defendant will be liable for any type of damage which is reasonably foreseeable as liable to happen even in the most unusual case, unless the risk is so small that a reasonable man would in the whole circumstances feel justified in neglecting it“.⁵
 - The damage sustained must be the same as the damage that was foreseen; otherwise, it is considered to be too remote. The case of *The Wagon Mound*⁶ is the governing authority. An increasingly favoured interpretation of that case is that the tortfeasor is liable for any damage which he can reasonably foresee, however unlikely it may be, unless it can be brushed aside as far-fetched.
- 21 The principle that the defendant is not relieved of liability because the damage was more extensive than might have been foreseen is applied in the Cyprus courts.
- 22 There are no rules allocating the costs of testing or of other means to establish causation.

(b) How is the burden of proof distributed?

- 23 The claimant has the legal burden of proof on the question of causation. This means that the claimant must show, by evidence, that the defendant caused the incident on the balance of probabilities.

⁴ (1969) 1 QB 428.

⁵ *Koufos v C Czarnikow Ltd* (1969) 1 AC 350, at p 385.

⁶ (1961) AC 388.

- 24 The principle instance under Cyprus law, where the onus of proof shifts to the defendant is provided for in section 55 of the Act, which embodies the well-known maxim of *res ipsa loquitur* and it reads as follows:

„In any action brought in respect of any damage in which it is proved that the plaintiff had no knowledge or means of knowledge of the actual circumstances which caused the occurrence which led to the damage and that damage was caused by some property of which the defendant had full control, and it appears to the court that the happening of the occurrence causing the damage is more consistent with the defendant having failed to exercise reasonable care than with his having exercised such care.”

- 25 In *Achilleas Morides v Chrystalla Ioannou*⁷ an action was brought by the appellant against the respondent in respect of damage caused to his storeroom by the fall of the respondent’s first floor. It was repeated that section 55 of the Act makes the *res ipsa loquitur* principle of English Common Law part of the statutory law of Cyprus.

- 26 Furthermore, in *Costas Michael Skapoullaros v Nippon Yusen Kaisha and Others*,⁸ A Loizou J, the then President of the Supreme Court, stated in his judgment:

„The plaintiff also rested his case on the doctrine of *res ipsa loquitur*. This doctrine was fully explained (see also *Pavli v Avraam*, Civil Appeal 10067, 24 February 2000) in *Emir Ahinet Djemal v Zinz Israel Navigation Co Ltd and Another*, (1967) 1 CLR 227, at p 244, by reference to the English authorities and with which exposition of the law I fully agree. Indeed in the circumstances of this case this doctrine does apply if we are to ignore the explanation for its cause offered by the witnesses for the plaintiff. In such a case, then we are left with a situation where the cause of the accident is not known. Then, the *res* can only speak so as to throw the inference of fault on the defender in some cases where the act of the defender is unexplained.”

- 27 A recent judgment of the Supreme Court of Cyprus referring to the doctrine of *res ipsa loquitur* is *Geopan Co Ltd and Others v Panagi*,⁹ which cites the case of *Achilleas Morides*, where the following was stated:

„We are discussing issues relevant to the mechanisms of proving breach of the duty of care assuming that such a duty exists; otherwise the attempt is purposeless. The doctrine of *res ipsa loquitur* is of no significance at this preliminary stage.”

7 (1973) 1 CLR 117.

8 (1979) 1 CLR 448.

9 Civil Appeal 9594, 10 November 1999.

- 28 According to section 52 of the Law, in any action brought in respect of any damage, the onus of proof shifts to the defendant when the damage was caused by any dangerous thing other than fire or an animal and the defendant was the owner of or the person in charge of such thing or the occupier of the property from which that thing escaped.
- 29 It is possible that *res ipsa loquitur* could apply to cases of contamination by GMOs. Of course, the courts have not yet considered this application of the doctrine.

(c) How are problems of multiple causes handled by the general regime?

- 30 Where there are multiple causes of the claimant's damage the effect of the but for test may be to leave the claimant with no remedy. The courts in Cyprus have not encountered cases based on multiple causation but would be likely to follow the common sense approach of the English courts where the effect of multiple causes will depend on whether causes are concurrent or successive. With concurrent causes the courts have adopted a common sense approach, by apportioning liability on a proportionate basis, dependent on the facts. The courts apportion liability between multiple defendants and then proceed to consider whether the claimant should suffer some reduction in his claim for contributory negligence.
- 31 With successive causes, the cases of *Baker v Willoughby*¹⁰ and *Jobling v Associated Dairies*¹¹ indicate the law in these difficult circumstances. Lord Keith stated „... the assessment of damages for personal injuries involves a process of restitution in integrum. The object is to place the injured claimant in as good a position as he would have been in but for the accident. He is not to be placed in a better position”.
- 32 With regard to joint and several tortfeasors: If two or more people cause one plaintiff different injuries, then no special rule applies. The plaintiff may sue each tortfeasor separately for the injury each has caused. Where two breaches of duty or other tortious acts cause one single injury the position is more complex. The basic position is that the plaintiff can sue all or any of them and each individual is wholly liable for the full extent of the harm although the plaintiff can of course only recover his loss once.
- 33 As has been stated, the claimant has the legal burden of proof on the question of causation and must prove causation on the balance of probabilities. The courts in Cyprus have not developed special rules which apply to difficult cases on causation. However, the courts in England have encountered some problems with proof of causation. A leading case in this area is – *McGhee v*

¹⁰ (1969) All ER 1528.

¹¹ (1982) AC 794.

*National Coal Board*¹² where the House of Lords – Lord Wilberforce found the defendants liable as they had „materially increased the risk of injury“. This was the test to be applied in such cases. The defendants were not allowed to hide behind the evidential difficulties of showing what had actually caused the harm. During the 1980’s, it became clear, in a number of cases that the Court of Appeal and the House of Lords had different views about the decision in *McGhee* and how to deal with difficult cases on the proof of causation. The Court of Appeal was adopting a far more liberal approach than the House of Lords and what was needed was for a case to be appealed to the House of Lords, so that they could try to resolve the situation. This happened in the leading case of *Wilsher v Essex Area Health Authority*.¹³ In this case there were serious evidential difficulties for the plaintiff in proving causation and the House held that in all cases, the claimant has the burden of proving on the balance of probabilities that the defendant caused the damage. Lord Bridge said: „Whether we like it or not, the law, which only Parliament can change, requires proof of fault causing damage as the basis of the liability in tort.”

- 34 The House of Lords faced yet another difficult case concerning injuries to employees in 2002 in *Fairchild v Glenhaven Funeral Services Ltd*,¹⁴ where Lord Nicholls said „the unattractive consequence, that one of the potential wrongdoers will be held liable for an injury he did not in fact inflict, is outweighed by the even less attractive alternative, that the innocent claimant should receive no recompense ... it is this balance which justifies a relaxation in the normal standard of causation required.”
- 35 The courts in Cyprus have not yet faced the challenge of such difficult cases on causation. As has been stated, they would likely (but not obliged to) follow the lead of the English courts.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 36 Under Cyprus law, there are certain common elements of tortious liability which may be reduced to three primary categories, namely:
- Act or omission on the part of the defendant or a person for whom he is vicariously liable;
 - Mental element, whether of intention or negligence; and
 - Damage.

¹² (1973) 1 WLR.

¹³ (1987) 2 WLR 425.

¹⁴ (2002) 3 ALL ER 305.

(ii) Act or Omission

- 37 With regard to the first element, „it is the act of the defendant which entails liability on him for the harm happening to another whether the act be one of commission or omission”, e.g. positive acts trigger liability in tort more easily than omissions to act. The duty not to cause harm seems stronger than the duty to prevent it happening.
- 38 The law has rarely provided a remedy for damage arising from mere omission. However, an important distinction must be drawn. A failure to do something in the course of an activity will be regarded as a bad way of doing the act, not as an omission. Thus, a failure to stop at a „Give Way“ sign while driving a car is a bad way of performing the active operation of driving. An omission is the failure to do some act as a whole, for which there is generally no liability but, in some cases, the law has imposed a duty to prevent inertia. Omission must be voluntary, i.e., a person knows that he is under a duty to act or of the circumstances giving rise to the duty and abstains.
- 39 In the case of *Slater v Worthington's Stores*¹⁵, it was stated that an act or omission is intentional with regard to its consequences in so far as the consequences are foreseen and desired. It is negligent with regard to consequences in so far as the consequences are not averted when a reasonable man would have averted them. Where the consequences are averted but are not desired, the term „recklessness“ is to be preferred to „gross negligence“, which is sometimes used.
- 40 Second, liability may be based on fault. Sometimes, an intention to injure is required but more often negligence is sufficient. In other cases, which are called cases of strict liability, liability arises in varying degrees independent of fault.
- 41 Finally, whereas most torts require damage resulting to the plaintiff which is not too remote a consequence of the defendant's conduct, a few (such as trespass and libel) do not require proof of actual damage.

(iii) Mental Element

- 42 The mental element has been customarily analysed in three categories, namely:
- Absolute or strict liability;
 - Intention; and
 - Negligence.

¹⁵ (1941) KB 1488, (1941) 3 All ER 28.

- Absolute or Strict Liability

- 43 The common feature of torts classified as of strict liability is that there can be liability independent of intention or negligence on the part of the defendant. Strict liability is essentially a negative idea in tort, as it means liability without proof of fault. It does not tell us what liability is based on. In the twentieth century the emphasis has been on fault based liability and strict liability has been generally frowned on by the judiciary. However, some enclaves of strict liability have survived and others have been created. There is no coherent theme to link these areas. Some, such as the rule in *Rylands v Fletcher*¹⁶ applied in the Cyprus Courts, are judicial attempts to deal with problems created by the Industrial Revolution. Yet again, the employer's vicarious liability for the torts of his employee can best be described as pragmatic responses of the law to a particular problem. Stricter forms of liability tend to exist in the older torts such as conversion and nuisance where liability is based on the fact of invasion of the plaintiff's interest rather than the defendant's conduct.

- Intention

- 44 Intention as a jurisprudential term means the state of mind of a person who foresees and desires that certain consequences shall result from his conduct. Intention refers to the defendant's knowledge that the consequences of his conduct are bound to occur where the consequences are desired or, if not desired, are foreseen as a certain result. Recklessness is usually categorised with intention where it is used to signify the defendant's awareness of a risk that the consequences will result from his act.

- Negligence

- 45 Negligence in tortious liability is complicated by the existence of a separate tort of negligence. At this point, the concern is with negligence merely as a state of mind, i.e., either a person's lack of attention to the consequences of his conduct or the deliberate taking of a risk without necessarily intending the consequences attendant on that risk.
- 46 The claimant adversely affected by GMOs would be most likely to sue in negligence or nuisance under Cyprus law – as to nuisance, see below.
- 47 Negligence – According to section 51(1) of the Law, negligence consists of causing damage by:

16 (1868) LR 3 HL 330.

- Doing some act which in the circumstances a reasonable, prudent person would not do or failing to do some act which in the circumstances such a person would do¹⁷, or
 - Failing to use such skill or take such care in the exercise of a profession, trade, or occupation as a reasonable, prudent person qualified to exercise such profession, trade, or occupation would in the circumstances use or take¹⁸.
- 48 Compensation may only be recovered¹⁹ by any person to whom the person guilty of negligence owed a duty, in the circumstances, not to be negligent. It was said, in *Sofocleous and Another v Georgiou and Another*²⁰ that it has been stated in a number of cases that negligence is a specific tort and in any given circumstances is the failure to exercise that care which the circumstances demand.
- 49 What amounts to negligence depends on the facts of each particular case and the categories of negligence are never closed.
- 50 The landmark decisions of *Donoghue v Stevenson*²¹, *Hedley Byrne & Co Ltd v Heller Partners*²², *Azazs v London Borough of Merton*²³, *L P Frazzgeskides Co Ltd v Ioannis Mania*²⁴, *The Attorney General v Pentaliotis Panapetrozr Estates Ltd* and *Pezataliotis Panapetrozr Estates Ltd v The Attorney General*²⁵; were referred to in *Sofocleous*, where it was stated that „negligence is a fluid principle which must be applied to the most diverse conditions and problems of human life“.
- 51 In negligence, the duty is not simply a duty to act carefully, but also not to inflict damage carelessly. A general test by which the existence or non-existence of a duty of care is determined was formulated by Lord Atkin in *Donoghue v Stevenson*. The duty exists wherever one person is in a position to foresee that an act or omission of his may injure another, and by „may“ is generally meant not „possibly might“ but „is reasonably likely to“.

17 For the criterion of the reasonable, prudent person, see the recent case of *Ioanzzidoa v Nicolaidis*, Civil Appeal 10339, 18 February 2000.

18 *Municipality of Limassol v Toynazou*, Civil Appeal 9412, 7 June 1999.

19 *Spyrou v Hadjicharalambous Bros*, (1989) 1 CLR 298.

20 (1978) 1 CLR 154.

21 (1932) AC 562.

22 (1963) 2 All ER 575.

23 (1977) 2 All ER 492.

24 (1989) 1(A) CLR 70.

25 Civil Appeals 9067 and 9062, 23 October 1998.

(b) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 52 Nuisances are divided into two main classes, i.e., public nuisances and private nuisances. A public nuisance also is a crime indictable under Common Law, as opposed to private nuisance, which is solely a tort.
- 53 The focus of nuisance is primarily on the particular interest of the plaintiff affected rather than on the nature of the conduct of the defendant responsible. Accordingly, once undue interference is proved, the task of the plaintiff is easier than in negligence. „The great merit of framing the case in nuisance as distinct from negligence,” Denning LJ once observed, „is that it greatly affects the burden of proof. It puts the legal burden where it ought to be, on the defendant, whereas in negligence it is on the plaintiff.”²⁶
- 54 Public nuisance is an unlawful act or omission which materially affects the comfort and convenience of a class of subjects who come within the sphere of its operation. Public nuisance is not necessarily connected with an interference with the use of land, and therefore the plaintiff need not have an interest in land to be entitled to file an action.
- 55 Under section 45 of the Law, a public nuisance consists of some unlawful act or omission to discharge a legal duty where such act or omission endangers the life, health, property, or comfort of the public or obstructs the public in the exercise of some common right.
- 56 Furthermore, in section 45, a provision is made that no action shall be brought in respect of a public nuisance²⁷, save by:
- the Attorney-General for an injunction; or
 - any person who has suffered special damage thereby.
- 57 Private nuisance may be described as unlawful interference with a person’s use or enjoyment of land, or some right over or in connection with it.²⁸
- 58 Under section 46 of the Act, a private nuisance consists of any person so conducting himself or his business or so using any immovable property of which he is the owner or occupier as habitually to interfere with the reasonable use and enjoyment, having regard to the situation and nature thereof, of the immovable property of any other person. The provisions of this section shall not apply to any interference with daylight. No plaintiff may recover compensa-

²⁶ Heuston and Buckley, Salmond and Heuston on the Law of Torts (21st ed, 1996).

²⁷ *Alexandros Kiran v Philippos A Protopopas and Another*, (1977) 1 JSC 121, at p 124.

²⁸ *Read v Lyons & Co Ltd* (1945) KB 216, at p 236.

tion in respect of any private nuisance unless he has suffered damage thereby.²⁹

- 59 In *Slosif Paphitis v Nicos Stavrou*³⁰ it was stated that „an essential ingredient of this civil wrong is that there should be habitual interference with the reasonable use and enjoyment of immovable property of any other person“. The burden was on the appellant to satisfy the court that there was such interference and, according to the findings of the trial court, she failed to do so.
- 60 On the facts of *Demetriou*, the noise created by the straightening workshop of the defendant was not excessive but was the ordinary noise of a straightening workshop which was audible if one approached the factory closely. Therefore, the noise complained of was not such as to interfere with the comfort and convenience of the appellant and the reasonable use and enjoyment of her property.
- 61 In *Chrysothemis Palantzi v Ivlicolas Agrotis, Chrysothenzis Palantzi v Nicolas Agrotis*³¹ it was held that:
- „It also is necessary to take into account the circumstances and character of the locality in which the complainant is living; The making or causing of such a noise as materially interferes with the comfort of a neighbour when judged by the standard to which I have just referred, constitutes an actionable nuisance and it is no answer to say that the best known means have been taken to reduce or prevent the noise complained of, or that the cause of the nuisance is the exercise of a business or trade in a reasonable and proper manner. Again, the question of the existence of a nuisance is one of degree and depends on the circumstances of the case.“
- 62 Furthermore, it was stated that the law must strike a fair and reasonable balance between the right of the plaintiff to the undisturbed enjoyment of his property on the one hand, and the right of the defendant, on the other hand, to use his property for his own lawful enjoyment.
- 63 According to section 47 of the Act, it is a defence to any action brought in respect of any private nuisance that the act complained of was done under the terms of any covenant or contract binding on the plaintiff which inures for the benefit of the defendant.

²⁹ *Sakellarides and Another v Michaelides and Two Others* (1965) 1 CLR 367; *Sysneonides and Another v Liasidou* (1969) 1 CLR 457.

³⁰ (1970) 1 CLR 140.

³¹ (1968) 1 CLR 448, at p 455.

- 64 It is not a defence to any action brought in respect of a private nuisance that the nuisance existed before the plaintiff's occupation or ownership of the immovable property affected thereby.

(c) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability.

- 65 See above regarding categories of liability, including strict liability. Torts of strict liability present a more difficult problem with regard to the defence of remoteness of damage. Here foreseeability of damage is not necessary to establish liability, but foresight of harm may be necessary for remoteness purposes.
- 66 According to section 60 of the Law, it is a defence to any action brought with respect to a civil wrong that the act complained of was done under and in accordance with any enactment.
- 67 Furthermore, the Common Law defences of inevitable accident and contracting out of liability (waiver) are applied by the Cypriot courts.
- 68 Mistake is generally no defence in torts of strict liability or in negligence. It is clearly no defence to an action in trespass to land or trespass to goods (and conversion). Its relevance as a defence is limited to cases where „reasonableness“ is required, for acting upon a reasonable mistake of fact may then be important.
- 69 The defence of inevitable accident can be successfully invoked by the defendant when, in doing an act which he may lawfully do, he causes damage without either, negligence or intention on his part. In *Theodoulou v Pelopidha*,³² it was held, inter alia, that, if the facts proved by the plaintiff raise a prima facie case of negligence against the defendant, the burden of proof is then cast on him to establish facts to negative his liability, and one way in which he can do this is by proving inevitable accident. In *Theodoulou v Pelopidha*, reference was made to *Merchant Prince*³³, where the following was stated:

The burden rests on the defendants to show inevitable accident. To sustain that, the defendants must do one or other of two things. They must either show what was the cause of the accident, and show that the result of that cause was inevitable; or they must show all the possible causes, one or other of which produced the effect and must, however, show with regard to every one of these possible causes that the result could not have

³² (1981) 1 CLR 230, at p 234.

³³ (1892) 179, at p 189.

been avoided. Unless they do one or other of these two things, it does not appear to me that they have shown inevitable accident.

- 70 The defence of extinction of liability may be invoked when there exists such an agreement which may be construed before or after the infliction of the damage and may be covering personal or vicarious liability. However, such agreements are occasionally prohibited by various statutes or the Common Law. The Common Law prohibits such agreements when these are in conflict with public policy.³⁴

4. Damage and remedies

(a) How is damage defined and measured?

- 71 Generally, the law of torts is concerned with those situations where the conduct of one party causes or threatens to cause harm to the interests of other parties. Compensation is a major function of the law of torts and it is best performed only when compensation is rightly payable. The very concept of compensation entails the notion of harm or damage. Nevertheless, damages are sometimes awarded where no harm has been suffered, its absence being concealed by the statement that the plaintiff's rights were infringed.
- 72 The main function of the law of torts is the recognition and protection of interests. An interest may be defined as a claim or need or desire of a human being or a group of human beings which the individual or group seeks to satisfy and of which, therefore, the ordering of human relations in a civilised society must take account. Harm or damage to those interests may take many forms, such as injury to the person, damage to physical property, damage to financial interests, and injury to reputation. In any given situation, it is of the essence that the plaintiff should be restored to the position he would have been in had the tort not been committed.
- 73 Proof of any kind of damage will not give rise to a claim in tort.
- 74 There are necessarily some types of loss which the law cannot recognize as giving rise to legally redressable injury. Thus, some harm is too trivial to found an action, while the courts look on other harm as part of the give and take of life in a world in which interests must often compete and conflict.³⁵
- 75 Theoretically, deterrence could be a function of the law of torts by the application of a standard of reasonable care. It is certainly true that at least some parts of the law dealing with premeditated conduct do help to serve this pur-

³⁴ *W.V.H. Rogers*, *Winfield and Jolowicz on Tort* (13th ed, 1989), at p 712.

³⁵ *Allen v Flood* (1898) AC 13.

pose as well as that of deciding whether or not redress for damage already suffered should be ordered.

- 76 Another function which the law of torts performs is that of allocating or redistributing loss and this is so in relation to actions where the plaintiff is seeking monetary compensation for the injury he has suffered. „It is the business then of the law of torts to determine when the law will and when it will not grant redress for damage suffered or threatened and the rules of liability whereby it does this.”³⁶
- 77 An action in tort is usually a claim for pecuniary compensation in respect of damage suffered as the result of a legally protected interest. Furthermore, the task of the courts is, first, to decide which interests should receive legal protection and, second, to hold the balance between interests which have received protection.³⁷
- 78 In *Paraskevaides (Overseas) Ltd v Christofis*³⁸, it was stated that the object of an award of damages is to do justice to the loss and damage of the injured party without imposing an inordinate burden on the tortfeasor. In other words, the award must be socially acceptable. Consequently, the social ethos at the material time is invariably a consideration relevant to the task, particularly with regard to non-pecuniary loss. Pecuniary loss, being more amenable to mathematical calculation, is less dependent on social norms. The aim of the exercise is to arrive at a figure at the end of the process that is fair and reasonable in the circumstances of the case.
- 79 Any person who shall suffer any injury or damage by reason of any civil wrong committed in the Republic will be entitled to recover from the person committing or liable for such civil wrong the remedies which the court has power to grant.³⁹
- 80 The courts, in the performance of their duty, should give fair and reasonable compensation to the plaintiff to put him in the same position, so far as money can do it, as he would have been in had he not sustained those injuries.⁴⁰ The general principle of assessment is restitution in integrum.

36 *W.V.H. Rogers*, *Winfield and Jolowicz on Tort* (13th ed, 1989), at p 2. 5 Civil Wrongs Law, Cap 148.

37 *Heuston and Buckley*, *Salmond & Heuston on the Law of Torts* (21st ed, 1996), at p 13. 108 *Paraskevaides (Overseas) Ltd v Christofis* (1982) 1 CLR 789, at p 793.

38 (1969) 1 CLR 332, at p 340.

39 *Civil Wrongs Law*, s 3; *Spyrou v Hadjicharalambous*, (1989) 1 CLR 298, at p 304.

40 *Poulloic v Constantinou* (1973) 1 CLR 177; *Paraskevaides (Overseas) Ltd v Christofis* (1982) 1 CLR 789.

- 81 In economic torts, the basic question is what has the plaintiff lost, not what the defendant can pay.⁴¹

(ii) General Damages

- 82 General damages are for general damage. It is the kind of damage which the law presumes to follow from the wrong complained of and which therefore need not be expressly set out in the plaintiff's pleadings. General damages are awarded for physical injury, pain and suffering, loss of amenity of life, and the loss of future earnings.
- 83 In *Kyriakos Mavropetri v Georgiou Louca*⁴² it was stated that the case law reveals a steady increase in the level of general damages awarded, reflecting a greater sensitivity towards human pain, worry about disability, and distress due to exclusion from daily human activities.⁴³

(iii) Special damages

- 84 Special damages signify the element of particular harm which the plaintiff must prove.⁴⁴
- 85 In *Emmanuel and Another v Nicolaou and Another*⁴⁵ it was stated that special damages are such as the law will not infer from the nature of the act. They do not follow in ordinary course. They are exceptional in their character and therefore must be claimed specially and proved strictly.

(iv) Exemplary Damages

- 86 Exemplary damages are not compensatory. They are awarded to punish the defendant and to deter him from similar behaviour in the future. In relation to the law governing the issue of exemplary damages, the English case of *Rookes v Barnard* is considered to be quite remarkable. In that case, the court set out the requirements that must be met to award such compensation.

41 *General Tyre and Rubber Co Ltd v Firestone Tyre Co Ltd* (1975) 1 WLR 819, at p 824.

42 (1995) 1 CLR 66, at p 74.

43 *Paraskevaides Overseas Ltd v Christofi* (1982) 1 CLR 789; *Polycarpou v Adamoy*: (1998) 1 CLR 727; *Finikarides and Another v Georgiou and Others* (1991) 1 CLR 475; *Panayi v Theodorou* (1992) 1 (B) CLR 1303; *Constantinou L, Ioannou* (1993) 1 CLR 669.

44 *Heracleous v Pitrou* (1994) 1 CLR 239; *Kyriakides v Fralagoaadis & Stefanou Ltd and Others*, Civil Appeal 9811, 26 February 1999; *Loizou v Morritzis*, Civil Appeal 10085, 21 June 1999.

45 (1977) 1 CLR 15, at p 34.

- 87 However, in *Papakokkinou and Others v Kanther*⁴⁶, the Supreme Court of Cyprus, without ruling on the issue whether the principles of *Rookes v Barnard* apply in Cyprus, preferred the wider principle permitting the award of exemplary damages where the defendant's conduct was so mischievous that such punishment was necessary. Mischievous conduct is the kind which demonstrates intense arrogance, rudeness, or an immoral motive and especially where it tends to humiliate the victim of the tortious act.
- 88 Exemplary damages are punitive in nature; they are intended to teach the defendant that „tort does not pay“, and they are awarded in addition to compensatory damages.

(v) Nominal Damages

- 89 Nominal damages are a small sum of money, awarded by way of recognition of the existence of some legal right vested in the plaintiff and violated by the defendant. Nominal damages are recoverable only in torts which are actionable per se.
- 90 In *Antoniades v Stavrou*,⁴⁷ where the appellant proved the existence of the wrongdoing but failed to prove the exact damage he had suffered, the court awarded nominal damages instead of rejecting the action.⁴⁸

(vi) Liability to pay damages for pure economic loss

- 91 The courts in Cyprus have had little opportunity to develop a policy and a body of case law concerning this difficult area. Only one case is reported in the Cyprus law reports where the central issue was the recoverability of economic losses. And this case involved a negligent statement as opposed to a negligent act; nevertheless, the approach taken in this case gives an insight into the approach that would be taken to any claim for damages for pure economic loss resulting from actions, rather than words, i.e. from contamination by GMOs.

- Damages for Negligent Misstatement

- 92 In the past, according to the rule, someone could not be held liable for negligent misstatements. Therefore, when a statement was made, even if the intention was for somebody to act on the basis of this statement and acted on the

46 (1982) 1 CLR 65.

47 Civil Appeal 9336, 29 May 1998.

48 *Ttaaztis v Hadjirazichael and Another* (1982) 1 CLR 301; *Papakokkinou and Others v Theodosiou* (1991) 1 CLR 379

basis of this to his detriment, the person who made the statement was not liable in *Candler v. Crane, Christmas & Co.*⁴⁹

- 93 This rule was reversed starting with the judgment in *Hedley Byrne & Co. v. Heller & Partners*.⁵⁰ The current legal position based on the English jurisprudence was exposed in the Cypriot case *Premier Chemical Co. Ltd v. Bank of Cyprus Ltd etc.*⁵¹ When during the usual course of work somebody asks for information or advice from another person under such circumstances where a rational person would reasonably realise that that is being entrusted and there is intention of action upon this information or advice, then the person providing it is obliged to show care. Whenever they do not show care and the other person acts on the basis of this with a resultant economic loss, then they are held liable for the loss.

JUDGMENT – *Premier Chemical Co. Ltd v. Bank of Cyprus Ltd etc* (1998)⁵²

R. GAVRILIDES, JUDGE: The appellant company produces and exports pesticides to various countries abroad. Within the framework of its activities, it was cooperating with the appellant commercial bank. For many years, the appellant was engaged in commercial transactions with Iraq. For the exports to the said country, they received their payments in US dollars. The payment was being made through a bank of Iraq to the appellant for the appellant. In 1984 the payment was made with an irrevocable confirmation of state credits on behalf of the issuing bank of Iraq. Although this confirmation was given to the appellant, the payment was not direct; it was made within the next twelve months. In 1985 the payment method was modified. The issuing bank of Iraq was not providing an irrevocable confirmation. During that same year, due to the Iran-Iraq war, numerous fluctuations in the exchange rate between the dollar and the Cyprus pound had been observed. In order to protect the transactions of the appellant, a pre-sale of dollars to the Central Bank was conducted. With this method, the appellant was covered and knew in advance the amount they would receive in Cyprus pounds within twelve months of the commercial act. The presale was done through the appellant bank.

The pre-selling process was regulated by the Central Bank, which had introduced the institution of deferred coverage as a measure to protect traders from fluctuations of the exchange rate between the Cyprus pound and

49 (1951) 2 K.B. 164.

50 (1963) 2 All E.R. 575. See *Caparo Industries Plc v. Dickman* (1990) 2 A.C. 605, *Henderson v. Merret Syndicates* (1994) 3 All E.R. 506 and *White v. Jones* (1995) 1 All E.R. 691.

51 (1998) 1 Supreme Court Judgments 1931 – 36-05.

52 1 Supreme Court Judgments 1931 – 36-05.

various currencies. The traders knew in advance the amount they would receive in Cyprus pounds from their exports for a period of time of up to twelve months since the agreement of the commercial act, regardless of the fluctuations in the currency of the act against the Cyprus pound.

The deferred coverage was operating within the framework determined by the relevant administrative Circulars of the Central Bank: the „basic” Circular which was issued on 29/12/1972, the Circular „amendment No.1” which was issued on 5/4/1983 and the Circular „amendment No.2” which was issued on 27/6/1984.

According to the „basic” Circular, the exporter that had a firm contractual commitment for the payment of foreign exchange presented to the commercial bank within a month from the commercial act the documents that formed the „firm contractual commitment”. Next, the commercial bank made an agreement with the Central Bank to pre-sell the foreign exchange. On the basis of the agreement, the exporter knew in advance the exact amount of Cyprus pounds they would receive when the foreign exchange would be transferred from the commercial bank and delivered to the Central Bank. If the relevant documents were presented to the commercial bank after the course of one month from the commercial act, the exporter would use another, special exchange rate, slightly less favourable than the normal one.

The Circular „amendment No.2” covered the exporter that did not have a „firm contractual agreement” for the payment of foreign exchange, because for example, they made an offer of some duration and were expecting its acceptance in order for a contract to be concluded. In this case, the Central Bank took as a basis the best exchange rate of the day and when the offer was changed into a „firm contractual agreement” the exporter would present their contract to the Central Bank via their bank and a new exchange rate would be used after several arrangements based on the „basic” Circular. If the contract was not presented, the Central Bank would use the worst exchange rate of the past twelve months, which meant that this difference would eventually burden the client of the commercial bank.

About halfway through 1986, the appellant shipped pesticides bound for Iraq and then presented the shipping documents with the invoices to the appellant bank asking for the expected foreign exchange to be pre-sold to the Central Bank. The appellant having considered that the documents presented did not consist of a „firm contractual commitment” proceeded to the conclusion of three contracts with the Central Bank, having as a basis the Circular „amendment No.2”. The Chief Executive Officer of the appellant was informed about the contracts and signed them.

Eventually, the commercial act with Iraq was cancelled.

Due to the fact that the appellant failed to use the „basic” Circular as it should have done and used the „amendment No.2” instead, the appellant holds the position that they suffered economic loss and that the appellant is obliged to provide restitution. This economic loss corresponds to the difference in the exchange rate of the dollar against the Cyprus pound, emerging from the submission date of the three contracts and their expiry dates, i.e. £33,000.00, not including interest and a fine of £900.00. According to the appellant, the loss was due to the fact that the „basic” Circular was not followed as should have been done. Consequently, the appellant did not benefit from the difference in the exchange rate of the dollar against the Cyprus pound, which on the expiry date of the contracts had decreased. If the pre-sale was done according to the „basic” Circular, this would mean that the emerging difference would be credited to the appellant and by extension to the appellant. However, since the contracts followed the Circular „amendment No.2” at the time of closure, the exchange rate was to the detriment of the appellant, on the contrary to what would have happened if the contracts followed the „basic” Circular.

The appellant supports their allegation that the appellant should have implemented the „basic” Circular and not the „amendment No.2” by the position that the waybill and the invoices consisted of a „firm contractual agreement”, which is contrary to what the appellant considered. Furthermore, the appellant supports their demand for restitution on the basis of breach of duty and or breach of agency agreement and or breach of fiduciary duty and or breach of trust and or negligence on behalf of the appellant during foreign exchange trading.

More specifically, regarding the issue of negligence which is the main focal point of the appeal, the appellant aimed at supporting the alleged negligence on behalf of the appellant on the basis of the principle enunciated by the House of Lords in the case of *Hedley Byrne & Co. v. Heller & Partners* (1963) 2 All E.R. 575, as analysed and explained by more recent judgments of the House of Lords in the cases of *Caparo Industries Plc v. Dickman* (1990) 2 A.C. 605, *Henderson v. Merret Syndicates* (1994) 3 All E.R. 506 and *White v. Jones* (1995) 1 All E.R. 691. According to this principle, if during the usual course of things a person seeks information or advice from another person, who has no contractual or other obligation to provide information or advice under such circumstances, in which a rational person would reasonably know that they are being entrusted, i.e. the person seeking the information or advice is counting on their specialised training and judgment, and the person asked decides to provide these without making it clear that they are informing or advising without taking any responsibility, then, this person has a legal obligation under the circumstances to show necessary care before providing their answers. A

failure to show the appropriate care substantiates the offence of negligence, if due to the answers given, the other person acted in a way that resulted in their suffering economic loss.

The question posed to the District Court was whether in this case the appellant succeeded in providing satisfactory evidence, which proved that between them and the appellant a relation was created within the framework of which, the principle under Hedley Byrne could be applied. Such evidence, as ascertained by the District Court –with which we agree– was not offered. According to the testimony of the CEO of the appellant, who was the only witness on the matter, the relevant conversation through the phone between himself and the competent employee of the appellant before the three contracts were ready, was simple. He was told that the Central Bank’s Circular „amendment No.2” would be followed, as had happened the year before and he agreed. Later, when the contracts were ready, he signed them without any discussion. It was not shown, by any part of the testimony given that information or advice were provided to the appellant concerning the way in which the CEO would proceed to pre-selling the foreign exchange. Besides, from the whole testimony, it emerges that as appreciated by the District Court, the CEO of the appellant, due to his extensive experience, had full knowledge of the content and the effects of the Circulars and was not in need to ask, and did not ask for any information or advice whatsoever. Apart from this, there is not a trace of evidence that the appellant had undertaken any obligation or assumed responsibility to inform or advise their clients on the Circular of the Central Bank applicable in each case. If there was an obligation this would consist in simply explaining the Circulars to the client and nothing more. The choice was a client’s issue. Even if there was a will to consider that under the circumstances there was a duty of care against the appellant and that advice was given, still there exists no appropriate testimony that the advice was wrong or was negligently provided. On the contrary, there is a testimony from the competent officer of the Central Bank, the witness for the defence I Iordanis Elevation, Chief Officer in the Department of Foreign Exchange according to which, under the circumstances, it was right to follow the Circular „amendment N.A” in relation to the three contracts under discussion.

In light of the evidence provided before the District Court, we consider that its findings and conclusions were reasonably allowed. In the same way, the evaluation of the testimony on behalf of the chief executive of the appellant was also reasonably allowed.

- 94 The appeal was dismissed with costs.
- 95 In the case *District Attorney v. Pentaliotis & Papapetrou Estates Limited etc.*, it was noted with reference to the English jurisprudence *Banque Financiere v.*

*Westgate Insurance Co.*⁵³, that under certain preconditions, liability might also be held if someone neglects to speak.

- Negligent act

96 Despite the fact that economic loss as a result of bodily injury or harm to property emerging from a negligent act could always be considered and awarded as part of damages, in general terms, no liability was recognised for „pure” economic loss.⁵⁴ Although there were certain modifications to this principle, the law was brought back to its initial position and it seems that there is no such liability unless the case falls within the parameters of *Hedley Byrne*.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

97 Based on the law as described in detail above, damages would not be recoverable under Cyprus law, in either eventuality.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

98 As explained above, the law of tort does not recognise claims for pure economic losses resulting from negligent acts. Actual physical harm would have to be proved in order for a claim to exist, pure financial loss would not suffice.

(d) Which are the criteria for determining the amount of compensation in general?

99 Under the existing law, the plaintiff could claim compensation for physical damage to property and any direct consequential loss. However, pure financial losses, e.g. loss of profit anticipated on the sale of the crops would not be recoverable.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

100 There is no financial limit to liability, although compensation in Cyprus is extremely low compared to England despite other similarities in the legal systems. The victim of a tort is obliged to mitigate his loss, i.e. he may not claim

⁵³ (1989) 2 All E.R. 952.

⁵⁴ For the distinction between „pure” and „resultant economic loss” see *Spartan Steel & Alloys Ltd v. Martin & Co. (Contractors) Ltd* (1972) 3 All E.R. 557, (1973) 1 Q.B. 27.

damages in respect of any part of his loss that would have been avoidable by reasonable steps on his part.

- 101 The limitation rules were initially contained in the Limitation of Actions Law, Cap 15, which was suspended in 1964 by the House of Representatives, due to political conflict. On 22 November 1990, the House of Representatives enacted the Limitation of Actions (Temporary Provisions) Law, (Law 217 of 1990) which provides that all actionable rights relating to the tort of negligence and which are the result of accidents that occurred between 1 January 1964 and 31 October 1984 are statute-barred if in the meantime no action had been brought before the court. Rules on limitation are to be found in section 68 of the Law, which reads as follows;

No action shall be brought in respect of any civil wrong unless such action is commenced:

(a) within two years after the act, neglect or default of which complaint is made, or

(b) where the civil wrong causes fresh damage continuing from day to day, within two years after the ceasing thereof, or

(c) where the cause of action does not arise from the doing of any act or failure to do any act but from the damage resulting from such act or failure, within two years after the plaintiff sustained such damage, or

(d) if the civil wrong has been fraudulently concealed by the defendant, within two years of the discovery thereof by the plaintiff, or of the time when the plaintiff would have discovered such civil wrong if he had exercised reasonable care and diligence:

- 102 Provided that if at the time when the cause of action first arises the plaintiff is under the age of eighteen years or is of unsound mind or the defendant is not in the Republic such period of two years shall not begin to run until the plaintiff attains the age of eighteen years or ceases to be of unsound mind or the defendant is again within the Republic;

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 103 There are no operators as the practice is currently illegal. Should it become lawful, insurance may be mandatory as it is for other industries, e.g. the tourist industry which must have suitable public liability insurance.

(g) Which procedures apply to obtain redress in such cases?

104 No procedures are applicable under the present law in Cyprus.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

105 Compensation schemes are extremely rare in Cyprus. There is not even an equivalent to the MIB (motor Insurers Bureau) to protect against the negligence of uninsured drivers. This lack of compensation schemes goes hand in hand with the non compensatory culture in Cyprus, previously referred to. The Government has stated that the issue of a fund is under examination.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

106 No, because GMO crops are illegal, no laws have been passed dealing with such matters as testing for GMO presence.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

107 There may be specific rules within the agricultural industry, but these are not within the writer's knowledge.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

108 This is not applicable, given the above comments.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules?

109 The legislature has not addressed this issue, although it may well have undisclosed plans to do so.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 110 The Courts of Cyprus have jurisdiction to try any action where the defendant is served with a Writ within the jurisdiction of Cyprus or where the defendant accepted that the courts of Cyprus have jurisdiction. A writ can be served outside the jurisdiction, with leave of the court. Leave will be granted where the subject matter of the dispute, i.e. the land affected is within Cyprus, or where a civil wrong has been committed in Cyprus. The mechanism for service will depend upon the existence of, and terms of any bilateral agreement with the country concerned. There is extensive case law on whether the case will remain within the jurisdiction of the Cyprus Courts. The party seeking to stay the proceedings in Cyprus would have the burden of proving that the forum is clearly inappropriate. The location of the evidence in the case would be a key factor in the decision.
- 111 One particular problem which concerns Cyprus is the division of the Island and the possibility of contamination of crops by GMOs originating from the occupied parts of the Island.
- 112 In the recent case of *Orams v Apostolides*,⁵⁵ the issue of the enforceability in England of judgments of the courts of the Republic of Cyprus concerning land within the Turkish Republic of Northern Cyprus, was raised. ...

55 The Times September 08, 2006 Neutral Citation Number: [2006] EWHC 2226 (QB).

4. CZECH REPUBLIC

Jiří Hrádek

I. General introduction

1. Czech GMO legislation

- 1 The Czech system of regulating genetically modified products is basically based on two groups of legislative measures, (i) on Act No. 78/2004 Coll., on the Use of Genetically Modified Organisms and Genetic Products („Act on GM”) (substantially amended by Act No. 346/2005) and on a statutory instrument providing the Act on GM, Decree No. 209/2004 Coll., on Detailed Conditions for the Use of Genetically Modified Organisms and Genetic Products, and further (ii) on Act No. 257/1997 Coll., on Agriculture, as amended („Act on Agriculture”), and on a statutory instrument providing the Act on Agriculture, Decree No. 89/2006 Coll., on Detailed Conditions for the Production of Genetically Modified Strains. The laws stipulated under (i) fall under competence of the Ministry of Environment, the latter under competence of the Ministry of Agriculture.
- 2 The impact of these laws on the area of liability is only indirect, as there is no specific regulation dealing with the liability issue. No Act or Decree mentioned establishes a specific or independent system of liability for GM organisms or products. Thus, the relevant legislation deals with the general provisions of liability in the Czech Civil Code (Act No. 40/1964 Coll.) and Commercial Code (Act No. 513/1991 Coll.).

2. Introduction to the Czech laws concerning liability

(a) The regulation of the Commercial Code

- 3 The regulation of liability in non-labour relations can basically be divided into two legislations: business and civil law legislation.
- 4 The regulation of liability for damage in business relations is based on the principle that the main source of the private law regulation of liability shall be the regulation established in the Civil Code. The provisions hereof are *leges speciales* with regard to the Civil Code. The Commercial Code contains its specific regulation of the liability issue in sec. 373 et seq., and this regulation is regarded as „comprehensive”, i.e. that when the relationship qualifies as a business relationship, the provisions of the Commercial Code shall apply in full regardless of regulations in the Civil Code.

- 5 Pursuant to sec. 1 of the Commercial Code, which regulates the material scope of the Commercial Code, the Code regulates *inter alia* business obligations and some other relationships connected with business activities. This provision would cause the regulation of liability in sec. 373 et seq. to apply only to business (contractual) relations. However, due to the provision of sec. 757 of the Commercial Code, the regulation of liability shall apply also to the extra contractual (delictual) cases of liability for damage. Based on this, the regulation covers cases of misuse of a business name, unfair competition, breach of concurrence and some breaches of duties of the members of statutory bodies of business entities. Also damage arising from the specific business relations and damage based on acts closely connected with the Commercial Code, e.g. Securities Act or Stock Exchange Act are covered by that provision.
- 6 The personal application for certain parts of the Commercial Code is ruled by sec. 261. Relevant for this study is especially sec. 261 (1), which provides that this part (dealing with business obligations) of the Code regulates obligations between entrepreneurs, provided that the origin of the obligations clearly indicates that they are related to their business activities, taking all the relevant circumstances into account. Therefore, if damage should arise between or among entrepreneurs or business entities the provisions of the Commercial Code concerning liability would apply. In other case, liability provisions of the Civil Code apply in general.
- 7 In conclusion, no provision of the Commercial Code enables the application of the regulation of the liability issue based on provisions of sec. 373 et seq. to cases of damage caused by the dangerous nature of a product or organism unless such damage results from a contractual relationship. For these cases the general provisions of the Civil Code are applicable.

(b) The regulation of the Civil Code

- 8 The main source of the civil law legislation, current Civil Code was approved in 1964, but in 1991 was changed in a fundamental way. The concept of liability based on the provisions of sec. 420 et seq. of the Civil Code includes absolute and relative rights.
- 9 Sec. 420 of the Civil Code provides that *every person is liable for damage which he causes by breaching a legal obligation*. This means that under this condition, the distinction between damages based on breach of contract, and liability based on delicts cannot be determined. The general provisions in the Civil Code are based on sec. 420, and the regulation includes the general clause defining the conditions for liability of legal and natural persons in delict.

- 10 The civil law theory requires the following elements: (i) breach of a legal duty or an event qualified by the law, (ii) damage and (iii) causation between the breach and its consequently inflicted harm. In most cases of liability, fault is required, either in the form of negligence or intention. The first three elements of the liability relationship are regarded as objective; on the other hand, fault is a subjective criterion of the liability relationship, i.e. with the particular person connected criteria.
- 11 A further important provision of the Civil Code is sec. 415. Under this law „everybody is obliged to behave in such a way that no damage to health, property, nature and the environment occurs”. This section provides the legal principle of prevention of damage which is a general rule for each provision, providing for damages under the Civil Code, and does not constitute any differentiation between diverse persons.
- 12 For both parties of the delictual relationship, it is very important that the Czech Civil Code regulates in sec. 420 (3) fault as a presumed fact. The defendant-wrongdoer has to prove that he did not act with fault. However, the theory concludes that in this case only an unconscious negligence could be presumed. In fact this rule presents a reversal of the burden of proof for the benefit of the injured party.

(c) A general introduction to cases of strict liability

- 13 The provisions relating to strict liability are located in sec. 420a – 437 of the Civil Code (with exception of sec. 422 – 424). These are cases which do not need fault to be established in order to protect the injured party. For fulfilment of the facts of a particular case just three conditions must be met: a legally specified event causing damage, damage and the causation between the incident and the caused harm.
- 14 The wrongful and qualified event that results in the harm presents a sufficient reason for liability and therefore no fault of the liable person is required. Because no fault shall be required, the wrongdoer cannot be availed with the right of exoneration, as opposed to a comparable situation where liability is based on fault. In some cases, however, the legislator allows for the wrongdoer to release himself from liability if specific legal conditions are met.¹
- 15 For a long time the issue has been discussed in Czech legal theory² of whether the Civil Code contains a general provision for strict liability in sec. 420a of

¹ Sec. 420a, 421, 427 et seq., 432 et seq. of the Civil Code.

² *J. Macur*, Odpovědnost a zavinění v občanském právu (Liability and Fault in Civil Law); *J. Švestka*, Odpovědnost za škodu podle občanského zákoníku (Liability for Damage pursuant to Civil Code); *M. Knappová*, Povinnost a odpovědnost v občanském právu (Obligation and Liability in Civil Law).

the Civil Code, which should have a subsidiary effect on all cases regulated in Czech law, i.e. not only for provisions of the Civil Code but also for other statutes. The experts maintain both views. However, according to the majority opinion, there is no general clause for strict liability, in contradiction to liability based on fault. The provision of sec. 420a of the Civil Code presents only a case of strict liability without being a general provision.³

- 16 Sec. 420a provides for the regulation for the liability of operational activity:

„Any person shall be liable for damage which he causes to another person while operating a business (sec. 420a (1)). Damage is considered to have been caused while operating a business if it was caused: (a) by an activity performed in the operation of a business or by an item used in that activity, (b) by the physical, chemical or biological impacts of the operation on its surroundings, (c) by the lawful performance or by making arrangements for such performance of those kinds of work which cause damage to someone else's immovables or which substantially impede or make impossible to use someone else's immovables (sec. 420a (2)). A person shall only exempt himself from liability for damage caused upon proving that such damage was caused either by an unavoidable event not arising from the operation of a certain business or by the conduct of the injured party (sec. 420a (3)).”⁴

- 17 These provisions of the Civil Code should be especially relevant for the purpose of this study.

(d) General introduction to the interference with real property rights

- 18 In the case of a breach of real property rights, the Czech Civil Code provides for provisions concerning the interference with real property rights, in particular in sec. 127 et seq. of the Civil Code. The compensation for this interference shall be subject to provisions concerning liability for damage based on sec. 420 et seq.; however, the Civil Code provides also for specific cases which are compensated independently in the general rules (see below).

3 M. Pokorný /J. Salač in Jehlička / Švestka / Škárková and others, Občanský zákoník – komentář (Civil Code – Commentary) (7th edn. 2002) 474.

4 Translation: TradeLinks, s.r.o., Civil Code – "Občanský zákoník" (edn. 2005).

II. General Liability or other Compensation Schemes

1. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

(i) Introduction

- 19 Czech legal theory acknowledges that causality is based on the existence of cause and result in such a manner that without the cause no result would have occurred. The result must be in direct connection with the cause.
- 20 It may be the case that the result arises as a consequence of another circumstance which was caused by something that can be attributed to a wrongdoer, assuming that this consequential damage was foreseeable and therefore attributable to the wrongdoer. The causality as an inevitable condition of liability must therefore be concluded also in the case when the relation between the cause and the result is indirect; however, this result is the consequence of the cause. Nevertheless, this conclusion is not always accepted by case law and the causality is in many cases refused.⁵
- 21 Contemporary Czech legal theory acknowledges two basic theories concerning the examination of causality which are presented by the authors of a textbook concerning civil law:⁶ the theory of equivalency or *conditio sine qua non* (*teorie ekvivalence*) and the theory of adequacy (*teorie adekvátnosti, teorie adekvátní příčinnosti*).
- 22 The theory of equivalency is based on the principle that the causality between the act and the result is always given if the damage would not have been caused had the wrongful activity not taken place, and it is applied mainly in criminal law which is based on fault. This theory requires, consequently, a certain correction of the choice of all relevant causes, and therefore it is used predominantly in criminal law.⁷ The theory of adequacy, which has been pre-

5 R 7/1979 – „The health of the plaintiff was damaged as a consequence of the reaction to the death of her child. The alleged cause therefore consists of the fact which alone is the result for which the defendant is held liable. [...] Therefore, the causality as the legal condition of the liability is missing. The direct result of the breach of the legal duty of the defendant was the death of the plaintiff's child and not the damage to the plaintiff's health.“

6 J. Švestka in M. Knappová / J. Švestka and others, *Občanské právo hmotné*, vol. II (Substantive Civil Law) (3rd edn. 2002) 457 ff.

7 J. Švestka (fn. 5) 459.

dominantly applied in private law, uses another criterion: the damage is regarded as a result of the wrongful activity if, besides being the condition of the damage, the wrongful act or wrongful event is due to the general nature, or, in the usual course of events and experience, a common result of the damage. For the theory of adequacy, therefore, a cause of a wrongful result is only such a wrongful act or event which would have been objectively foreseeable to any average person, i.e. also to the person to whom the relevant cause is attributable. The theory of adequacy is used predominantly in civil law which, in addition to subjective-based fault, also uses an objective-based examination of cause and result.⁸

- 23 The actual above-mentioned approach is based on a 20-year-old decision of the Supreme Court of the Czech Republic, published under R 7/1979. However, this approach was changed, or a change has been commenced, by a decision of the Supreme Court dated 24 May 2001⁹ in which it concluded that even in a circumstance where the defendant is at the same time responsible for the damage of the plaintiff's item this does not exclude the causal connection between the breach of duty resulting in the damage and the damage which the plaintiff incurred in the form of lost profit. The Supreme Court argued in its reasoning that in the present case the logical chain of causes and results was not interrupted because the direct cause of the establishment of the lost profit was the fact that it was a direct result of the damaging of the item caused by the wrongdoer. No new fact had therefore entered into the chain of causes and results, but only a fact which had already been foreseeable for the wrongdoer before he caused the damage in question. The chronological point of view for the establishment of damage is not conclusive because it cannot be required that harm should arise immediately after the wrongdoer's action.
- 24 In conclusion it can be accepted that in terms of causation the chronological point of view between the cause and the wrongful result is not the deciding factor but always the factual relationship; in that respect the chronological relationship helps to reason the factual causation.

(ii) Conclusion concerning the study's subject matter

- 25 The above-mentioned theoretical overview means for the purpose of the study, that if the logical chain of causes and results is not interrupted by a new element which was unforeseeable by the farmer producing GM organisms, the existence of the GM organisms should be the direct cause of the establishment of damage, either in the form of actual damage or lost profit (see below). However, the criterion of foreseeability might be very difficult in some cases, especially with respect to the fact that the GM organisms or products are not

⁸ *J. Švestka* (fn. 5), 458, 459.

⁹ Supreme Court, 25 Cdo 1946/2000.

well examined and the research has been developing and new facts have been discovered.

- 26 It is therefore disputable whether anybody could for instance foresee a modification of non-GM crops in such a way that it becomes extremely dangerous to human health or to the environment. On the other hand, the contamination of non-GM crops should present, in our opinion, a foreseeable fact for the farmer. This conclusion should apply both to the commercial and non-commercial usage of GM organisms. In that respect the causality between the contamination of non-GM or organic products and the duties resulting from that and the consequential damage should be foreseeable to the farmers as well as the possible restriction of the access to the market.

(b) How is the burden of proof distributed?

- 27 As mentioned above, the basic condition for the establishment of liability is the existence of causality between the wrongful event or a breach of legal duties and the damage that has occurred. It is the duty of the injured party to prove the relevant circumstances. The only exemption from the duty to claim and prove the relevant circumstances of the case is fault that has been presumed under the current Civil Code.
- 28 Pursuant to constant case law, the further examination of the case with respect to the fault can be provided only if the causality between the wrongful event or breach of duty and the wrongful result is proved (R 47/84)¹⁰. But it is not only the duty to prove the relevant facts of the case which creates the duty to present the relevant facts. The injured party must present and give evidence of everything that could be relevant for the assessment of the case. In other words, it is the duty of the injured party to claim and prove all facts (burden of allegation and burden of proof).
- 29 To prove the existence of the causation between damage and breach of duties or legally qualified wrongful event, the causation must always be proved. The probability or expectation that a similar breach leads „beyond doubt” to damage is not sufficient. The same applies to cases of strict liability.¹¹ This approach may, of course, lead to the impossibility to prove the causality between damage and breach of duties or the legally qualified event.
- 30 However, this strict approach is maintained by the legal theory whereas the courts, which decide on the particular case, must consider all facts and allegations individually, and the court is entitled to evaluate all evidence brought

¹⁰ *J. Švestka* (fn. 5) 454.

¹¹ *M. Holub / J. Bičovský / M. Pokorný, J. Hochman / I. Koblíha, R. Ondruš*, *Odpovědnost v občanském, obchodním, pracovním a správním právu* (Liability for Damage in Civil, Commercial, Labour and Administrative Law) (2003) 18.

freely and under its own consideration. As a result each particular case might be assessed differently: however, the courts are obliged to assess the case as exactly as possible.

(c) How are problems of multiple causes handled by the regime?

- 31 Czech tort law does not explicitly establish the categories of multiple causes. Therefore, in each particular case it is necessary to examine all causes leading to the wrongful result and estimate each cause in regard to its relation to the wrongful result. The result of such an examination must be the discovery of the relevant cause, *i.e.* such a cause which inflicted the damage in question. The court must find only the causes which are under the civil law regulation of liability relevant for the damage, *i.e.* either the illegal act (in the form of omission or act) or a wrongful event qualified by law.¹² Especially in cases covered by this study the wrongful event qualified by law is important due to the application of sec. 420a of the Civil Code.
- 32 There may be, of course, many causes and in such a case their particular contribution to the establishment of damage must be examined. Based on the principle of „*gradation of causation*”, either all of these causes can be found relevant or, in accordance with the estimation, only causes inflicting the damage will be selected.
- 33 This approach complies with the application of the theory of adequacy, as under this theory the cause of a wrongful result is only a wrongful act or event if objectively foreseeable to any average person. In cases of multiple causes the issue of the foreseeability for an average person is a crucial term, and the court must evaluate the question in such a matter whether the particular result was foreseeable or not for the wrongdoer based on objective criteria. The court must take into account all circumstances of the particular case and, if required, also an expert’s opinions and valuations.¹³
- 34 The answer to this question must be that the Czech civil law does not include any special rules on alternative, potential or uncertain causation and the particular adjudication of that issue depends on the circumstances of the individual case, the allegation and the proof of the parties, and finally on the free consideration of the judge. Czech law offers only a general clause stating that anybody is liable for damage caused by the breach of a legal obligation. This

12 J. Švestka (fn. 5) 457.

13 However, the courts in similar cases adjudicate more on the question of unlawfulness which seems to be the crucial point of the case for Czech courts more than the question of foreseeability. If the unlawfulness of the act or event is considered positively, the issue of causal connection becomes subject to further court evaluation which should be recorded in the judgment. However, in most cases the judgments are not very well developed in this regard and the courts mostly reason the causal connection by the existence of unlawfulness (e.g. 25 Cdo 1094/2001).

provision means that always a certain liable person must be found. If there is no liable third party proven under the above-stated conditions, the Czech law concludes that the damage in question must be born solely by the injured party. This corresponds with the traditional principle *casus sentit dominus*.

- 35 The liability of multiple tortfeasors is currently regulated in sec. 438 – 441¹⁴ of the Civil Code. Pursuant to sec. 438, if damage is caused by multiple tortfeasors, they shall be held jointly and severally liable. This provision covers such situations when (i) damage was caused in contributory fault, i.e. when each wrongdoer has a psychological relationship not only to his own act or omission but also to the activity of other persons, or (ii) a case of concurrent contribution, i.e. a case when only damage based on independent acts of wrongdoers occurs.¹⁵ The contributory fault refers, however, not only to the concurrence of cases of liability based on fault but also to cases of the concurrence of liability based on fault and strict liability or to cases of strict liability.
- 36 The primary type of collective liability is, in accordance with sec. 438 (1) of the Civil Code, joint and several liability, i.e. the liability of one wrongdoer for the activity of other wrongdoers and all wrongdoers for the activity of each of them,¹⁶ whereas each of them is entitled to recourse if he compensates more than his share of the damage. The exception to this principle is several liability, i.e. the liability of the wrongdoer for a certain part of the damage which he individually caused. The application of this exception is, however, not obvious and must always be sufficiently reasoned in respect to the particulars of the case (R 80/1985).

2. Standard of Liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 37 Fault is a subjective criterion for the establishment of liability. The Czech theory of civil law determines fault as the psychological relationship of the li-

14 Sec. 438: (i) If damage is caused by two or more persons they shall be liable for it jointly and severally. (ii) In warranted cases a court may rule that those who caused damage shall be held liable for it to the extent of their proportionate share of the damage.

Sec. 439: Any person who is jointly and severally liable with others for damage shall settle with these persons in proportion to their share of the damage that occurred.

Sec. 440: Whoever is liable for damage caused by another person has the right of recourse against such person.

Sec. 441: If the damage caused was also the fault of the injured person, he bears corresponding liability for the damage; if the damage was exclusively his own fault, he alone bears the liability.

15 M. Holub /J. Bičovský /M. Pokorný /J. Hochman /I. Kobliha /R. Ondruš (fn. 10), 85.

16 J. Švestka in: M. Knappová/J. Švestka, *Občanské právo hmotné*, vol. II. (Substantive Civil Law) (2nd edn. 1998) 366.

able party to their own act which is in breach of an objective law, i.e. to their wrongful act as well as to the result of the wrongful act.¹⁷

- 38 However, the wrongful activity of all GMO producers could be qualified pursuant to sec. 420a of the Civil Code, which sets out the liability for damage caused by operational activity. Therefore, the fault, either in the form of negligence or of intent does not play any important role (the exemption would be compensation based on provisions concerning the interference with real property rights).
- 39 But, if fault-based liability were decisive the rules set out in the Act on GM or other statutes and legal provisions would be extremely relevant. The reason for this allegation is that fault-based liability requires a breach of legal duty and this duty would be represented by the legal rules set out in the relevant statutes. In that regard it might be disputable whether a breach of legal duty would always exist for instance in the case of contamination of neighbouring lands, as the GM legislation accepts certain level of the contamination and such a contamination would not present a breach of any legal duty!
- 40 For both parties of the delictual relationship, it is very important that the Czech Civil Code regulates fault as a presumed fact. The defendant-wrongdoer has to prove that he did not act with fault. However, the theory concludes that in this case only an unconscious negligence could be presumed. In fact this rule presents a reversal of the burden of proof for the benefit of the injured party.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

(i) Requirements for establishing liability

- 41 The applicable strict liability regime pursuant to sec. 420a of the Civil Code, which sets out the liability for damage caused by operational activity, is based on three conditions of liability:
- the existence of an event qualified by law,
 - damage and
 - causality between the event and damage caused.

¹⁷ *J. Švestka* (fn. 5) 461.

- 42 Pursuant to the legal literature which provides for closer interpretation of the relevant section, under the term „operational activity” should be primarily understood any activity which relates to the business activity (*předmět činnosti / podnikání*) of a legal entity or a natural person and which is stipulated either in its deed of foundation, business or trade license etc. However, the term operational activity cannot be considered as only business activity as it is not an identical term. Therefore, operational activity should be understood every activity that is a part of the operation of business and factual activity of the legal entity or the natural person, even though it is not defined as its business activity.¹⁸ It plays also no role whether it is necessary to obtain a public license for it or not (typically a trade license).¹⁹

(ii) Defences based on justification and release from liability

- 43 In general, the following cases of defence based on justification are acknowledged both by legal theory and case law:
- Fulfilment of legal obligations
 - Exercising of a subjective right (*neminem laedit qui iure suo utitur*), however the exercise must not interfere with rights of third party without a legal reason and must not be in contradiction to „proper morals”.
 - Self-help
 - Self-defence
 - Necessity
 - Approval of the injured party
- 44 The provision of sec. 420a provides for reasons for release from liability in the case of damage caused under the conditions of that section if the wrongdoer proves that such damage was caused either by an unavoidable event not arising from the operation of a certain business, or by the injured person’s own conduct.
- 45 In that respect the interpretation and application of the term „unavoidable event” is extremely important with regard to the subject of this study. The unavoidable event is in accordance with the doctrine that such an event could

¹⁸ Not subject to this provision are operations which are subject to special liability provisions, like motor vehicle liability (sec. 427 et seq.), extremely dangerous operations (sec. 432) or operations connected with some items (sec. 433 et seq.). But none of these cases of special liability relates to the GM products or organisms.

¹⁹ M. Pokorný / J. Salač (fn. 3) 474.

not have been stopped even through exercising all possible care. These circumstances must be considered with respect to the particular conditions of the case; however, the objective point of view must also be taken into account.²⁰

- 46 The contributory conduct of the injured party is covered by sec. 420a (3) when the conduct of the injured party may present a reason for release from liability arising under conditions sec. 420a of the Civil Code. However, the operator of the operational activity bears the burden of proof.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 47 Czech law provides for special rules applicable to cases of causing a nuisance or similar neighbourhood issues. These cases are ranged under the Second Part of the Civil Code called Rights to Real Property, and the Civil Code provides for regulation of the ownership rights to an item. To the same extent as the owner of an item, the holder of that item is also protected.
- 48 Especially the provision of sec. 127 of the Civil Code provides for special regulation of the interference with neighbours' rights. It states that the owner of an item must abstain from anything that would cause an unreasonable amount of annoyance to another person or seriously endanger the latter's ability to exercise his rights. The owner may not endanger his neighbour's buildings or plot of land by making alternations to his own plot of land or to any building erected on such land without having taken adequate measures in respect of proper reinforcement of his building or other appropriate measures in respect of his plot of land. He may not vex his neighbours to an unreasonable extent by noise, dust, ash, smoke, gases, fumes, odours, solid or liquid waste, light, shadows and vibrations [...].
- 49 Another crucial regulation is established in sec. 127 (3) of the Civil Code which constitutes the right of a neighbour with plots of land to get access to their plots of land, to the buildings standing upon them to the extent necessary, and for the necessary period for the required maintenance and management of the neighbour's plot of land and buildings. Where damage to a plot of land or building occurs, the person who caused the damage is obliged to compensate for it. Such a person cannot exempt himself from this liability.
- 50 Sec. 127 (3) of the Civil Code further provides that liability arising in connection with the entry to the neighbouring land cannot be excluded. That means that such liability is a special case of strict liability which does not allow application of the general provision of sec. 420 of the Civil Code. However,

²⁰ *J. Švestka* (fn. 5) 518.

other cases of damage caused to ownership rights are subject to the general provisions of sec. 420 et seq.²¹

- 51 The protection of the ownership right cannot be statute barred. However, as the right to compensation is a monetary receivable, which must be regarded as a property right, it must also be subject to the termination period pursuant to sec. 106 of the Civil Code. Under this provision the right to damages becomes statute-barred two years after the day on which the injured party became aware of the damage and of the identity of the liable party. The right to damages becomes statute-barred after three years at the latest. If the damage was caused intentionally, it is ten years from the day on which the event resulting in the damage occurred.
- 52 These cases could also apply to cases covered by this study, as an immission to neighbouring land is a typical example of interference with property rights covered by the Second Part of the Civil Code.

3. Damage and Remedies

(a) How is damage defined and measured?

- 53 The term „damage” had already been established in Czech law by the Austrian ABGB, which was applicable in the former Czechoslovakia until 1950. The term *škoda* (damage) set out in sec. 1293 of the ABGB is understood to mean „any loss incurred to anybody, to his property, rights or his person. However, in accordance with the doctrine it should have been applicable only to the proprietary damage²² and the expressions „damage to rights or person” did not concern the personality rights of persons but only the proprietary values of any receivable or other similar values.²³ The socialist legislator took over this theory during the preparation of both socialist Civil Codes from 1950 and 1964 so that when the latter Civil Code was substantially changed by the amendment dated 1991 the meaning and understanding of damage remained unchanged.
- 54 The concept of damage is not defined in contrast to the regulation in the ABGB by the current legislation in the Czech Republic. However, the case law in connection with the doctrine generally defines damage as „any loss of property which can objectively be calculated into an equivalent value, i.e. a

21 J. Jehlička in *Jehlička / Švestka / Škárková and others*, *Občanský zákoník – komentář* (Civil Code – Commentary) (7th edn. 2002) 358, 359.

22 F. Rouček / J. Sedláček, *Komentář k československému občanskému zákoníku*, vol. V (1937) 667 ff.

23 F. Rouček / J. Sedláček, *Komentář k československému občanskému zákoníku*, vol. V (1937) 663.

monetary value.”²⁴ Czech legislation uses the term „*škoda*” for the concept of damage to property.

- 55 Different from the term damage Czech law acknowledges also damage to the non-material sphere of the injured party for which the term „*(nehmotná) újma*” – (non-material) – injury is usually used. However, contrary to the expression and the concept of damage, injury can become subject to damages (compensation, satisfaction) only in certain set cases determined by law. The Civil Code sets out rules for compensation for non-material harm in particular in sec. 13, 19a and 444 et seq. of the Civil Code.²⁵
- 56 Damage is divided into two categories²⁶: actual damage (*damnum emergens*) and lost profit (*lucrum cessans*). This means in accordance with the literature and standard judicial interpretation any loss of property which can be objectively calculated into an equivalent value, i.e. a monetary value (see above).
- 57 Actual damage can be defined as damage caused to property which can be assessed by calculating the reduction or devaluation of the existing property of the injured party (typically additional costs which must be expended as the result of the wrongful act of a third party or a devaluation of the property owned).
- 58 Lost profit is in contrary to the previously mentioned damage loss sustained as the result of the wrongful event which caused the property of the injured not to have been increased, even though such an increase could have been expected under normal circumstances. An example could be the aggravation of the market position or a diminution of sales.
- 59 Case law maintains the opinion that both kinds of damage are basically independent, and each of them can be suffered regardless of the existence of the other. Focusing on the kinds of losses covered by this study, the third party may suffer both the actual damage and lost profit. The particular specification of the damage sustained depends on the loss incurred. However, in accordance with the current case law, as both kinds of damage are independent of each other and both kinds are recoverable, the determination of the loss is not very relevant.

24 M. Pokorný /J. Salač (fn. 3) 466 ff.; includes *damnum emergens* and *lucrum cessans*, R 55/1971.

25 A specific case of harm is damage to health which presents damage to a non-material sphere of the injured; however, such harm is in most cases accompanied by damage to property of the injured, for instance as loss of earnings, loss of pension, costs of medical treatment etc. The Civil Code contains therefore special provisions set out in sec. 444 – 449a and uses for such kind of damage the term „*škoda na zdraví*” – damage to health.

26 Recently for instance the Supreme Court 25 Cdo 1307/2003.

- 60 Concerning pure economic loss, Czech law does not explicitly acknowledge this kind of damage. However, pure economic loss could fall under the category of actual damage or the lost profit category if it is proved that such loss fulfils the conditions set out by the case law and doctrine. This question is, however, very unclear, as the attribution of a damage always depends on many issues and circumstances of the particular case. Therefore, it cannot be said in general what kind of damage the pure economic loss is and whether it is recoverable.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 61 As we have mentioned above the liability of the farmer using the GM organisms should be considered pursuant to sec 420a of the Civil Code, i.e. as a case of strict liability regulated in the Civil Code. An inevitable condition for liability is the proof of the existence of the event qualified by law, the establishment of damage and causality between the provisional activity, in particular, the physical, chemical or biological impacts on the surroundings and the damage sustained.
- 62 If the injured party proves these elements the wrongdoer can use certain defences or reasons for release from liability, which would exclude him from liability; however, the chance to exempt oneself from liability is very limited (see above).
- 63 The relevant court must evaluate the issue of whether all these facts are proved. Therefore, it is the issue of free valuation of evidence maintained by the court which is decisive for the answer to this question. In our opinion, proof of the existence of consumer fear of crop contamination on its own would not present a reason for damage, as this is not a sufficient cause for the lost profit suffered. The reason should be the fact that the event qualified by law occurred, namely in accordance with sec. 420a the biological and chemical impact of the GM organisms or products on the surroundings. Such a fact can be proved only by proving the contamination.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 64 As a general rule applied by both the Civil and Commercial Code, the damage suffered must always be foreseeable by the wrongdoer. This could be the case of labelling the contaminated products or other obvious duties resulting from the existence of GM organisms. We assume that the person using GM organisms is familiar with the duties resulting herefrom.

- 65 Therefore, it should be concluded that such probable consequences are predictable and foreseeable for this person and present the line between compensable and non-compensable losses.
- 66 Such losses based on consumer fear which would however not be incurred in connection with the actual contamination should not be compensable. The reason is exactly the same as was mentioned under the answer to point b). Namely, the labelling of non-contaminated products or organisms is not a direct result of the biological impact of the activity of the GM farmer.

(d) Which are the criteria for determining the amount of compensation in general?

(i) General criteria

- 67 Damage pursuant to sec. 442 is always recoverable, either in money or in restitution in kind, if the injured party so demands and if it is possible and expedient.
- 68 As mentioned above, the recoverable damage is either the actual damage or the lost profit. This fact determines the amount of compensation. It is the obligation of the injured party to prove the amount of damage suffered. Concerning the amount of compensation, Czech law acknowledges full compensation, i.e. that the injured party shall be entitled to receive full compensation for the damage suffered.
- 69 In accordance with the decision the actual damage is harm caused to property, which consists of destruction, loss, reduction or other devaluation of the existing property of the injured party.²⁷ Therefore, the answer to the question concerning the extent of the compensation must be that only the depreciation of the products would be compensable as only this represents the actual damage. Such damage is typically subject to an expert's appraisal and valuation; however, if the injured party is able to calculate the damage suffered precisely enough such evidence could be found sufficient.
- 70 The actual damage is represented by the actually expended costs of the injured party. However case law acknowledges that actual damage is also represented by expenditures which are to be expended in the future to restore the previous state or to restrain all disadvantages resulting from the fact that restitution in kind was not provided (R 25/90).²⁸ The injured party must always prove the actual damage. However, in exceptional cases when the damage could be determined only with obstacles or the determination is absolutely impossible, the relevant court may use its right and determine the damage pursuant to its

²⁷ *J. Švestka* (fn. 5) 447.

²⁸ *J. Švestka* (fn. 5) 447.

free consideration (sec. 136 of the act No. 99/1963 Coll., Civil Procedure Code).

- 71 There is a case commented on by the Supreme Court (S IV, p. 628)²⁹ whose merit is very similar to the subject of this study. The Supreme Court included this case in its commentary on damage cases, and it confirmed the following qualification: *a change of the value of a vineyard caused by the fertilisation of neighbouring lands which resulted in the low productivity of the vineyard, presents an actual damage.*
- 72 In accordance with the definition of lost profit provided above the profit must not only be hypothetical, but it must be reasonably expected with respect to the usual circumstances. Therefore, in every case the court must consider all circumstances of the current case and finally decide on the nature of the damage.
- 73 The doctrine proposes the application of the principles set out in the Commercial Code in cases of calculating lost profit. Pursuant to sec. 379 lost profit is damage which could have been envisaged, taking into account the facts of which the wrongdoer was or should have been aware of if he had taken all due care. The Supreme Court concluded in its decision II Odon 15/96 that the lost profit must always be determined in a way that the probable amount, which under usual consideration is equal to the surety, is to be discovered.³⁰
- (ii) Contractual arrangements concerning the kind and scope of damage
- 74 Concerning the amount of compensation, the Civil Code prohibits in sec. 574 an agreement under which someone waives his rights which can only arise in the future. Also the provisions of the Civil Code concerning the kind and scope of damages are deemed mandatory so that the parties cannot modify the extent and amount of compensation in advance.
- 75 The Commercial Code contains a similar provision in sec. 586, which is a special provision to sec. 574 of the Civil Code for business relations and which prohibits a waiver of claims for damages until the relevant duty is breached. Despite the mentioned wording the legal doctrine deduces that a limitation of damages in business relations is possible: however, the compensation cannot be excluded in full.³¹ Another point is that the provisions of the Commercial Code concerning the kind and scope of damages are not mandatory so that the parties could alter the compensable kinds of damages.

²⁹ M. Pokorný /J. Salač (fn. 3) 519.

³⁰ Právní rozhledy 4/1996.

³¹ For instance J. Šilhán, Contractual limitation of Compensation for Damage in Commercial Law, PR 2005, 845 ff.

- 76 The most favourite type of contractual arrangement is a contractual penalty set out in the Civil Code in sec. 544 et seq., which enables a lump sum compensation if one party breaches its contractual obligations. In case a contractual penalty is concluded the party breaching its obligation is bound to pay it even if the entitled party did not sustain any damage. Concerning the amount of compensation, the entitled party shall have no right to claim damages caused by a breach of the obligation to which the contractual penalty relates, unless agreed otherwise. Moreover, the entitled party may claim damages in excess of the amount of the contractual penalty only if agreed.
- 77 The Commercial Code contains in sec. 300 et seq. only a few provisions amending the above-mentioned provisions. However, it enables the court to reduce the amount of the contractual penalty.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 78 There is no financial limit with regard to the liability for GM organisms and products. However, the Civil Code includes in sec. 450 a reduction clause. This clause includes the discretionary power of a judge to reduce damages in favour of the wrongdoer. This provision is set out in sec. 450 of the Civil Code and under this rule the judge shall consider the proprietary situation of both parties to find out if reasons which merit special consideration exist. When such a situation allows the reduction in favour of the defendant-wrongdoer, the judge shall reduce damages. Reducing compensation, however, is not a duty of the court, and it can be classified therefore as discretionary. Still, the examination of the property owned by both parties is obligatory.
- 79 The discretionary power of the court shall be applied under the following conditions: The main condition for the application of the reduction clause is the existence of reasons which merit special consideration. In addition, the wrongdoer must not have acted intentionally. The wrongdoer may therefore act only in negligence, but this has no effect if the negligence can be qualified as being either conscious or unconscious.
- 80 As already mentioned, the court is obliged to examine all aspects of the reduction for the benefit of the wrongdoer. However, the injured party must also be protected, and that is why an equal examination of the injured party's circumstances must be carried out. It can be interpreted from the language of the provision that all aspects of both parties' circumstances must be evaluated equally when concerning a possible reduction in the damages to be awarded.
- 81 Certain limits apply to the amount of damages granted especially in cases of non-pecuniary injuries. Under Decree No. 440/2001 Coll., on Compensation for Pain Suffering and for Aggravation of Social Position, both categories, i.e. compensation for pain suffering and for aggravation of social position are

compensated by a lump sum and the amount is determined by the court pursuant to a point scale laid down by the Decree.

- 82 The whole system of compensation for physical injury and aggravated social position is based on a system of classifying each injury on a point scale basis. Within this system, injuries are considered on an objective basis and are measured with reference to a point scale system, whereby every point is equivalent to 120 Czech Crowns (€ 4).³² The judge shall apply this schedule to the particular case (the value is determined by a physician), even in exceptional cases special circumstances of the particular case can be taken into account, and hereafter the judge may use his discretionary power to increase the amount of compensation payable.³³ The Decree allows a small, „reasonable” variation from the set amount and the judge must always reason his decision.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 83 Neither the Act on GM, Act on Agriculture nor other laws establish a duty to take out liability insurance or to provide for other advance cover for potential liability. However, it is still possible for the persons working with GM organisms to take out an insurance policy offered by commercial insurance companies.

(g) Which procedures apply to obtain redress in such cases?

- 84 Due to the previous answer this question cannot be answered.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

- 85 There are no general compensation schemes that would be applicable in cases covered by this study other than the general liability provisions of the Czech Civil Code.

³² Sec. 7 subs. 2 of the Decree No. 440/2001 Coll.

³³ Sec. 7 subs. 3 of the Decree No. 440/2001 Coll.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 86 The Act on GM includes certain provisions on the duty to monitor the GM organisms and products. In particular in sec. 18, 23 and 24. Sec. 2 lett. h) provides for the definition of monitoring, which is defined as the identification of the presence of a genetic modification in an organism or a product and observation of the impact of the genetically modified organism or genetic product on the health of human beings and animals, the environmental components and biological diversity.
- 87 Pursuant to sec. 18 (9) the person who was granted consent for its introduction into the environment shall ensure that the monitoring and reporting of the results thereof are carried out in accordance with the requirements laid down in the consent. Sec. 23 and 24 of the Act on GM provide then for the further duty to monitor and specify this obligation with respect to the actual introduction into the environment.
- 88 Pursuant to sec. 2i of the Act on Agriculture the producer of genetically modified species is obliged to inform about fields with GM crops to its neighbouring farmers and the Ministry of Agriculture as well as preserve the information on the GMO and keep the minimal distance between GM and non-GM species.
- 89 However, no provision specifies conditions for bearing the costs of the monitoring which is an inevitable condition for introducing the GM organisms into the environment. Therefore, it seems to be the fact that all these costs must be paid by the person listed in the Register of users in accordance with the Act on GM.
- 90 The Act on GM further provides in sec. 34 for provisions concerning corrective measures if the Czech Environmental Inspections discovers that GM organisms or products are managed in contradiction with the Act on GM or with relevant decisions. In this case the landowner can also become subject to restrictions. However, in all cases the person whose activity was the cause for such corrective measures shall bear the costs of the corrective measures. If no person is found the state shall pay the costs. The corrective measures should cover all breaches of the Act on GM, i.e. the breach of duty to monitor could also become subject to the measure.
- 91 Also in accordance with the Act on Agriculture the producer can become subject of sanctions when it does not comply with duties set by the law. How-

ever, the Act on Agriculture allows only a financial fine up to the amount of 500,000,- CZK (€ 18,000).

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 92 We have contacted the Ministry of Environment and the Ministry of Agriculture, which are the relevant governmental bodies for GM issues. The Departments confirmed for us that for GM organisms there are no further specific rules applicable to the sampling and testing costs. In other words, all costs combined with the sampling and testing must be born by the person that uses the GM organisms in accordance with the Act on GM and eventually by the state.
- 93 In business relations the contractual parties may conclude certain rules concerning the sampling and testing. These rules, however, are not applicable in general and cannot be mentioned as a typical example of business based rules.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 94 The Act on GM provides for a provision that in cases when Czech Environmental Inspections takes corrective measures these costs shall be born by the liable party. If the Czech Environmental Inspection takes corrective measures and there is no reason for such an action the state must be held liable for a wrongful decision pursuant to the State Liability Act³⁴ and consequently, the state shall bear the costs incurred or reimburse the damage caused.
- 95 However, there are no further provisions for bearing the costs of sampling and testing.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 96 There are no special jurisdictional or conflict of laws rules that apply to harm caused by the GM products or organisms. Consequently, general provisions of Act No. 97/1963 Coll., on private international law and procedure law („IPL”) would apply. However, an important fact must be mentioned that the former

³⁴ Act No. 82/1998 Coll., on Liability for Damage Based Either on Misadministration or on Illegal Decisions and on Changes in the Act No. 358/1992 Coll., on Notaries and Their Activity (Notary Order).

Czechoslovakia concluded many bilateral treaties with other socialist countries³⁵ which are still valid and effective and which, pursuant to sec. 2 of the IPL shall take precedence over the general rules of the IPL, i.e. also the provisions of sec. 15 of the IPL. These bilateral treaties include the specific rules also for the liability issue.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 97 The rules of the IPL differentiate between damage caused as a result of a breach of a contractual or other relationships and damage caused as result of another fact.
- 98 As the contractual relationship will not be relevant in cases of damage caused by GM organisms and products, we will further deal with the issue of delictually (extra-contractually) caused damage. Pursuant to sec. 15 of the IPL „claims to damages which do not result from breach of legal duties based on contracts or other legal actions shall be governed by the laws of the place where the damage occurred or of the place where a fact establishing the claim for damages came from”.
- 99 This provision covers cases of damage caused either by breach of a legal duty resulting from generally binding legal provisions or damage arising from strict liability.³⁶ Damage caused in a road accident is not subject to this provision, as these cases are subject to international regulation based on international treaties, and also damage within a labour law relationship, which is subject to the special regulation of labour relations within the IPL. However, both these areas are not very relevant for the topic of this study.
- 100 The Czech regulation of the determination of a legal order applicable to the extra-contractual relationship (*lex loci delicti*) is based on an alternative application: either the laws of the place of the damage’s occurrence or the place where a fact establishing claim for damages came to. However, different from some legal orders on the application of the particular legal order, the parties of the extra-contractual relationship shall not decide, but the relevant court. In other words, the Czech law does not allow the choice of law in extra-contractual relations.
- 101 Pursuant to legal theory³⁷ a rule for the determination states that the court should select the most important legal order for the particular relationship. In other words, the relationship established by the delictually caused damage

35 Albania, Bulgaria, Hungary, Cuba, North Korea, Poland, Yugoslavia, Soviet Union etc.

36 Z. Kučera, *Mezinárodní právo soukromé (Conflict of Laws)* (5th edn. 2001) 307.

37 Z. Kucera (fn. 32) 308.

should become the subject of the legal order it relates to in the closest way. The Czech Supreme Court decided in a very recent case on cross-border relations that in cases of damage to health and the consequential claim of the Health Insurance Company against the wrongdoer, the law of the place where the damage occurred must govern such a relationship.³⁸

- 102 It is therefore very problematic to say how the Czech court would decide a case of damage caused by GM organisms or products. In our opinion, the damage caused by the GM organisms and products could be divided into two groups in relation to the potential cause of the damage. Examples are damage in organisms growing in another state or damage suffered by non-GM farmers in the form of additional costs, e.g. for labelling.
- 103 In our opinion, in the first case the *lex loci delicti* should be found in the neighbouring state, as in this particular state the contamination of the non-GM organisms by organisms from another state occurred. Moreover, the damage arises independently of the will of the farmer using GM organisms. Based on this fact we are of the opinion that the closest relationship exists with regard to the place of the damage's occurrence. Concerning the other case of damage, the additional costs are an indirect result of the crops' contamination and therefore also the place of the damage's occurrence should be found relevant with regard to the applicable law.

³⁸ Supreme Court, 25 Cdo 2881/2004.

5. DENMARK

Vibe Ulfbeck

I. Special Liability or Compensation Regimes

1. Introduction

- 1 In Danish law a special compensatory regime is in force. This was introduced by the Act on the Growing etc. of Genetically Modified Crops¹ (the Co-existence Act). In addition, an Executive Order on Compensation for Losses due to Certain Occurrences of Genetically Modified Material was issued² (Executive Order on Compensation) According to § 1 in the Co-existence Act it is applicable to commercial cultivation, handling, sale and transport of genetically modified crops. The system is not a liability regime. It is meant to work by way of a compensation fund. The compensation fund is financed by the state and the GMO cultivators. The system covers economic loss resulting from actual GMO presence in non-GM crops. The person suffering damage is entitled to compensation if he can prove the existence of a loss caused under specific circumstances described in the Co-existence Act and in the Executive Order on Compensation. Compensation will be paid by the Plant Directorate (the state) provided the injured party fulfils the requirements. The state is entitled to a recourse action against the GMO cultivator. The system will be explained in more detail below. As of now cultivation by means of GMOs require permission from the Plant Directorate³ and cultivation has not been practiced on a large scale in Denmark.⁴ Consequently, there is no case law that can illustrate the interpretation of the rules.

1 Act no. 436 of 9th June, 2004 (see Annex II/5). The act entered into force on April the 9th and December the 17th 2005, see Executive Order no. 224 of 31st March, 2005 and Executive Order no. 1178 of 17th December 2005.

2 Executive Order no. 1170 of 7th December, 2005. The Executive Order entered into force on the 17th of December, 2005.

3 See Executive Order no. 220 of 31st March 2005 on Cultivation of Genetically Modified Crops (Executive Order on Cultivation on GM crops), § 1, sec. 1.

4 According to the Plant Directorate only one permission has been granted by June 2006.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 2 According to § 9 in the Co-existence Act, compensation for loss due to the presence of genetically modified material is awarded if 1) in the same cultivation season within a certain area⁵ a genetically modified crop of the same kind or a kind which is next of kin has been cultivated and it can be crossed in with the crops of the injured party, 2) genetically modified crops above a certain level⁶ can be identified in the crops belonging to the injured party. As is clear from the wording of the rule there is no specific requirement for proof of causation. A certain geographic closeness between the crops of the injured party and the genetically modified crops suffices, provided the genetically modified crops can be identified in the crops of the injured party. As regards ecologically cultivated crops the Co-existence Act contains a special provision in § 9, section 4 making it even easier to obtain compensation. According to this rule, compensation will be paid regardless of whether the requirements in section 1, no. 1) and 2) are fulfilled. If the injured party is authorized as an ecological farmer the presence of GMO seeds in his seed corn is sufficient to trigger compensation.

(b) How is the burden of proof distributed?

- 3 There is no provision as to the burden of proof in relation to the above described rules. Judging from the wording („if”) it must be assumed that the injured party must prove that the requirements stated in § 9, subsection 1, no. 1) and 2) are fulfilled. If the injured party has lifted the burden of proof in this respect there seems to be an irrebuttable presumption of causation. Thus, no rule allows for the cultivator of the genetically modified crops to produce counterevidence. In this sense different sources of adventitious presence of GMO's are not being taken into account.

(c) How are problems of multiple causes handled by the regime?

- 4 Problems of multiple causes are not specifically dealt with by the regime. There are no rules on alternative, potential or uncertain causation. The loss („liability”) is channelled to the compensation fund. The compensation fund can have a recourse action against the GMO cultivator, see below under 5 (Compensation funds).

⁵ Appendix 1 to the act contains the geographical requirements in this respect.

⁶ According to the Executive Order on Compensation the existence of GMO must exceed a threshold of 0.9.

3. Type of regime

(a) If it is a fault-based liability regime, what are the parameters for determining fault, and how is the burden of proof being distributed?

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

(c) If it is not a liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

- 5 The regime is not a liability regime but is meant to function by means of state funding. Compensation is paid by the state to the injured party regardless of whether the GMO cultivator has acted negligently or not. The only requirement is that the injured party can prove that GMOs above a certain level can be detected in his crop and that the geographic requirements in § 9 in the Co-existence Act are fulfilled, see above under 2 (causation). However, although the system is not a liability system a defence based on negligence on the part of the injured party is still open to the state. Thus, according to § 9, section 5, compensation can be reduced or denied if the injured party negligently or wilfully has contributed to causing the damage or if his acts have reduced the possibilities of the state succeeding in a recourse action against the GMO cultivator. According to the preparatory work on the act⁷ the injured party may have negligently or wilfully contributed to causing the damage if he has used the tools of a GMO cultivator or if he has not used GMO-free outseed. He may have reduced the possibilities of the state of succeeding in a recourse action if he has waived his right to claim damages from the GMO cultivator or if he has entered into an agreement as to the geographical requirements in the act.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 6 According to § 1 in the Co-existence Act, the act is applicable to genetically modified crops. In § 2 genetically modified crops are defined as crops, including seeds and vegetative reproduction material. Thus, in general the same criteria apply with regard to crop production and seed production although different contamination thresholds may apply in regard of crop and seed production. However, according to § 7 in the Executive Order on Cultivation of GM crops the sale of vegetative reproduction material and seed for commercial purposes must only take place to persons who are authorized.

⁷ Lovforslag (bill)169 (2003) per § 7.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 7 The compensatory regime is not exclusive. There are no rules in the act requiring the injured party to proceed by way of claiming compensation under the act rather than suing the GMO cultivator under general rules of tort law. However, if the injured party chooses to sue the GMO cultivator under general tort law and obtains damages § 11, section 2 in the Executive Order on Compensation applies. According to this rule the state can „under the circumstances” refuse to pay compensation if the GMO cultivator has paid damages. In the preparatory work the rule is understood as excluding the injured party from compensation in this case.⁸ The compensatory system can also work as a supplement to the general rules of tort law. Thus, according to § 11 in the Co-existence Act the injured party retains his right to claim compensation from the GMO cultivator for losses not covered by the compensation paid by the state.

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

- 8 Loss which entitles the injured party to compensation under the Co-existence Act is defined in § 9, section 3. According to this rule the injured party can claim compensation for three different types of losses. Firstly, compensation can be claimed for the reduction in the sales price which is a consequence of the presence of genetical material in the crop. Secondly, compensation can be claimed for expenses in relation to taking samples and making analyses. Thirdly, compensation can be claimed to cover expenses in relation to re-establishing ecological areas because of the presence of genetically modified material.
- 9 As regards compensation for the reduction in price the preparatory work contains the following observations⁹: If the admixture is detected *before* the sale the price reduction will be measured as the difference between the market price of crops with no admixture and the market price of crops with admixture. If the crop has not yet been sold at the time when compensation is sought, the market price will be determined as the market price at the time of the application for compensation under the compensatory system. If the crop has been sold at this stage and the admixture has been taken into account when setting the price, the actual loss will be measured as the actual price reduction at the time of the sale, provided the achieved price is in accordance with market prices at the time of sale. If the admixture is detected *after* the sale the compensation payable will amount to the sum which the injured party

⁸ Bill 169 (2003) per § 7.

⁹ Bill 169 (2003) per § 7.

must pay to his purchaser as a reduction in price. In this case the injured party is only entitled to compensation if he actually repays his purchaser the sum.

- 10 As regards expenses in relation to taking samples and making analyses, these expenses can be claimed under the compensatory system. Initially however, the person claiming compensation under the system is obliged to cover the costs, see below under III 3 (sampling and testing costs).
- 11 As regards loss, due to the need of re-establishing ecological areas the rule relates to the cases in which the injured party, according to the rules under the Ecology Act¹⁰ is obliged to re-establish the area and cultivate ecologically for a certain period of time before the products can be sold as ecological products again. In these cases compensation can be claimed for expenses incurred in connection with the reestablishment of the area. Compensation to cover loss of subsidies for that period of time can also be claimed.
- 12 The compensation payable is limited to these three categories of losses. The injured party cannot claim compensation under the act for further direct or indirect losses, for instance losses suffered by the injured party because he has become liable towards contracting parties.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 13 According to § 9, section 3, no. 2) in the Co-existence Act proof of actual admixture is a requirement under the act. A farmer who suffers loss because his customers only fear that his products are no longer GMO free must claim damages under the general rules of tort law, see below under II.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 14 See the answer to question (b).

(d) What are the criteria for determining the amount of compensation?

- 15 See the answer to question (b)

¹⁰ Act no. 118 of 3rd March, 1999.

(e) Is there a financial limit to liability?

- 16 There is no financial limit to liability.¹¹ However, the rules in § 9, section 3 in the Co-existence Act described above under (a) limit liability as no other losses than the ones mentioned in this paragraph can be compensated under the act.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 17 As of yet there are no insurance requirements but the GMO cultivator is obliged to contribute to the financing of the funding system, see below under 5 (Compensation funds).¹²

(g) Which procedures apply to obtain redress?

- 18 According to § 10 the injured party must notify the Plant Directorate of his claim in order to obtain redress. Notification must be given without unnecessary delay after the injured party has become aware or ought to have become aware of the admixture of GMO.¹³ If the injured party fails to comply with this rule he loses his right to compensation. The right to obtain compensation is also lost if the injured party has not notified the Plant Directorate of the claim by the 1st of August in the year after the crop has been harvested. It follows from § 13, section 1 in the Executive Order on Compensation that decisions taken by the Plant Directorate cannot be appealed within the administrative system. However, according to § 16, section 2, decisions on compensation taken by the minister can be brought before the ordinary courts. A request to this effect must be sent to the Plant Directorate within 4 weeks after the decision has been taken. The case is then brought before the courts by the Plant Directorate.

11 The bill originally contained a rule authorizing the minister to set a financial limit, see bill 169 (2003), per § 7, section 3.

12 In connection with the evaluation of the system it will be considered whether this could be changed into an insurance system, see bill 169 (2003), per § 10.

13 According to § 4, section 2 in the Executive Order on Compensation, notifications which are received later than two weeks after the injured party became aware or ought to have become aware of the GMO admix will normally be considered too late.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 19 According to § 13, section 1 in the Co-existence Act the Minister of Victuals, Agriculture and Fishing can grant injunctive relief either before or after admixture has occurred.

5. Compensation funds

(a) Are there any compensation funds?

- 20 The compensation system in the act is based on the idea of a fund to pay compensation.

(b) How are these funds financed?

- 21 The fund is financed by the state, by contributions from GMO cultivators and by the means obtained from recourse actions. According to § 9 compensations are paid by means reserved for this purpose on the state budget. According to § 12 also the GMO cultivators contribute to the fund. Thus, on an annual basis a GMO cultivator is required to pay 100 d.kr. (i.e. approx. 13 Euro) per hectare of land which has been cultivated with GMO. It is expected that the payments from the GMO cultivators will gradually rise as GMO cultivating becomes more common. In the preparatory work to the act it is expected that the payments from the GMO cultivators will cover more than 50 % of the compensation claims in 2007.¹⁴

(c) Is there any contribution granted by the national or regional authorities?

- 22 See above under (a)

(d) Is the contribution to the fund mandatory or voluntary?

- 23 The contribution is mandatory, cf. § 12 in the Co-existence Act.

(e) Is a balance established between the money paid into the fund and expenses of the fund? If so, at which time intervals are levies adapted to the actual expenses?

- 24 There are no specific plans to make changes to the amounts payable by the GMO cultivators who make contributions to the fund, but according to the

¹⁴ Bill 169 (2003), section 4.

preparatory work the entire system established by the act is to be evaluated two years after the act has entered into force, i.e. 2007.¹⁵

(f) How are the funds operated?

- 25 According to § 1 in the Executive Order on Compensation, the Plant Directorate manages the fund and decides which claims are justified. The injured party must notify the Plant Directorate of the claim, see above under 4 (g). The injured party must provide the Plant Directorate with further information, specified in § 5 no later than four weeks after the notification. According to § 7, the Plant Directorate hereafter takes a sample from the crops belonging to the injured party. The sample is then examined by the Plant Directorate.

(g) Are there any provisions for recourse against those responsible for the actual cause of the loss?

- 26 According to § 11 in the Co-existence Act and § 12 in the Executive Order on Compensation the Plant Directorate is entitled to a recourse action against the GMO cultivator. Recourse is allowed to the extent that compensation has been paid provided the GMO cultivator would have been liable towards the injured party under the general rules of tort law, see below under II.

6. Comparison to other specific liability or compensation regimes

- 27 The described compensation regime is comparable to four other compensation regimes in Danish law. However, the other regimes concern cases of personal injury. Only two of the systems are state financed. The two others are based on insurance systems.
- 28 According to the act on victims of crimes (voldsofferloven)¹⁶ a victim of a crime who has suffered personal injury is entitled to damages from the state. The claim is measured in the same way as ordinary personal injury claims and the amount of damages payable can be reduced if the victim has contributed to the injury. It is a condition for obtaining damages that the crime is reported to the police without necessary delay and that the victim claims damages from the offender if criminal proceedings are instigated. However, damages are payable by the state regardless of whether the offender is unknown, cannot be found, is under the age of 15 or is insane.
- 29 Another state financed system is the one found in the act on damage caused by medicaments (lægemiddelskadeloven).¹⁷ According to this act a patient who suffers injuries in the sense of side effects of medicaments that go be-

¹⁵ See bill 169 (2003), appendix 56, section 3.

¹⁶ Act no. 470 of 1st November 1985 as amended.

¹⁷ Act no. 1120 of 20th. December 1995 as amended.

yond what the patient should reasonably accept is entitled to damages paid by the state. The state has a recourse action against the manufacturer if he is liable according to the general rules of tort law or the rules of products liability.

- 30 In addition to the described systems Danish law knows two insurance-based compensatory systems. According to the act on patient insurance¹⁸ (patientforsikringsloven) a patient who suffers personal injury in connection with treatment in hospital or treatment at a private clinic is under certain conditions entitled to damages. The damages are paid by the person or authority who is responsible for running the hospital or the clinic. This person must be insured unless it is a public authority in which case it is regarded as „self insured”. If the injured party is entitled to damages under the act he is not allowed to claim under general tort law for the same loss, cf. the act § 7. Since the act covers virtually all losses, the loss is in reality fully canalised to the insurance companies.
- 31 In that respect the system under the industrial compensation act¹⁹ (arbejdsskadesikringsloven) is slightly different. Under this act workers who are injured during work are under certain conditions entitled to damages. The system is based on mandatory liability insurance. The damages being paid are financed by the insurance premiums paid by the employers. However, only certain types of losses are covered by the act. Losses that are not covered can be claimed by the injured party from the employer under general tort law rules, cf. the act § 77.
- 32 Thus, apart from the fact that the compensation system in relation to GMO cultivation does not deal with personal injuries the GMO compensation system fits into a broader compensatory system in Danish law.

II. General Liability or other Compensation Schemes

1. Introduction

- 33 The above described special compensation regime in relation to GMO cultivation does not rule out the application of various liability systems as supplemental or alternatives to the special regime. Four different liability systems could be considered: 1) the Environmental Liability act,²⁰ 2) special rules on strict liability as developed in court practice, 3) the ordinary negligence rule 4) special rules on neighbourhood conflicts.
- 34 As regards the Environmental Liability act the polluter is liable on a no-fault basis, cf. § 3, section 1. The act applies to damage caused by the pollution of

18 Act no. 228 of 24th. March 1997 1997 as amended.

19 Act no. 422 of 10th. June 2003 as amended.

20 Act no. 552 of 24th. June, 1994 as amended.

air, water, soil or the underground by certain kinds of commercial or public activities, cf. § 1, sec. 1 in the act. Although the concept of pollution is interpreted broadly, it could be argued that GMO cultivation causes damage to crops and not to air, water, soil or the underground. However, even though it cannot be ruled out that admixture of GMO in the soil would be regarded as pollution of the soil, the environmental liability act would still not be applicable. Thus, the appendix to the act contains a list of enterprises that can be held liable under the act. Only enterprises which are on the list can be held liable. Enterprises which are under a duty to apply for authorization for the production by means of GMO according to the act on Environment and Gentechnology²¹ (the Gentechnology act) are listed, cf. J2. However, the term „production” in the Gentechnology act does not seem to cover agricultural cultivation.²² Accordingly, GMO farmers are not covered by this provision on the list. It could be considered whether GMO farmers could fall into a different category on the list. Thus, also buildings with a certain capacity for holding effluent animal manure are listed, cf. I1. However, if liability is to be imposed it is a further requirement that the damage is caused by the aspects of the enterprise which are the reason for the listing of the enterprise. When buildings with a certain capacity for holding effluent animal manure are listed, this is due to the size of the capacity for holding the manure. It is not the purpose of the rule to grant protection from consequences of the application of GMO's. Consequently, pollution caused by GMO agriculture does not fall into this category either. Therefore, it must be assumed that the GMO cultivator cannot be held strictly liable under the Environmental Liability act.

- 35 As regards the special rules on strict liability as developed in court practice the area of applicability of these rules is quite narrowly defined.²³ Notably, there is no doctrine of strict liability for dangerous activities in Danish law. Thus, strict liability has been imposed in some cases where excavation and/or pile work in connection with construction work has caused neighbouring buildings to develop cracks in the walls or other kinds of damage. The leading case is U 1968.84 H.²⁴ Strict liability was imposed on the owner of the building being erected. The reason given for this was that he, being the owner, while planning and budgeting the project had had the opportunity to take into consideration the risk of this type of damage. Although the justification for imposing strict liability on the face of it seems applicable in a wide range of situations the rule of strict liability has in fact been confined to two areas of the law. Thus, firstly strict liability applies to cases like U 1968.84 H in which big excavations, pile works and similar works are being carried out and lead

21 Act no. 981 of 3rd. December 2002 as amended.

22 The preparatory work to the gentechnology act mentions production in laboratories and the like as covered, see bill 117 (1990), per § 7 and 8.

23 See von Eyben/Isager, *Lærebog i erstatningsret*, 5. udgave, 2003, p. 134 ff.

24 UfR (Ugeskrift for Retsvæsen, Weekly Law Reports) 1968, p. 84, H (Højesteret, Supreme Court)

to considerable damage. Secondly, the rule of strict liability has been applied to cases concerning leakages of supply lines. In general the courts are hesitant to establish strict liability in new areas of the law. Consequently, it is unlikely that the courts will introduce strict liability for GMO cultivation in Danish law on the basis of (an analogy from) the above described doctrines.

- 36 It must therefore be assumed that liability will be based on the ordinary rule of negligence or the special rules relating to neighbourhood conflicts concerning cases where lasting inconveniences are caused. The application of these rules in relation to GMO cultivation will be described in more detail in the following.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 37 In Danish law the general rule in relation to causation is described as the *conditio sine qua non* rule.²⁵ This means that as a starting point the GMO cultivator will only be liable if damage to the crops would not have occurred had it not been for the acts of the GMO cultivator.

(b) How is the burden of proof distributed?

- 38 As a starting point the burden of proof is on the injured party. This means that the owner of the damaged crop must prove that the damage has been caused by the GMO cultivator. In general, it is not sufficient for the injured party to prove his case with a likelihood of more than 51 percent. The likelihood must be greater than this.²⁶ However, sometimes the burden of proof can be milded. In particular, this is the case if the tortfeasor has acted grossly negligently or clearly negligently. In court practice the requirement of proof of causation has been relaxed in cases like this.²⁷ Thus, if it can be categorized as a clear mistake on the part of the GMO cultivator that he has failed to apply proper segregation measures the injured party will presumably stand a better chance of proving a causal link between the damage to his crops and the GMO cultivation. Similarly, the requirement of proof can be relaxed if the tortfeasor has violated statutory rules of conduct in the particular area.²⁸ There are no general rules as to the question of whether there should be a reversed burden of proof. It is up to the courts to decide whether the burden of proof should be

²⁵ von Eyben/Isager, p. 217-218.

²⁶ von Eyben /Isager, p. 221.

²⁷ See U 2000.521 H, U 1989.353 Ø and U 2002.2000 H.

²⁸ In a sense this rule is a variant of the rule described above on acts by the tortfeasor that are clearly negligent, see von Eyben /Isager, p. 223.

reversed in the specific case. Thus, a reversed burden of proof cannot be ruled out in cases of damage allegedly caused by GMO cultivation.

(c) How are problems of multiple causes handled by the general regime?

- 39 When damage is caused by multiple tortfeasors the tortfeasors are jointly and severally liable. This is also the rule in the case of damage inflicted by several successive acts.²⁹ This means that if a crop contains admixture from two different GMO cultivators and each admixture would in itself have rendered the crop unsaleable, the GMO cultivators are jointly and severally liable.

3. Standard of liability

(a) In the case of fault-based liability, what are the parameters for determining fault and how is the burden of proof being distributed?

- 40 In the case of fault-based liability, the main parameter for determining fault is to question whether the tortfeasor has acted in a way that differs from recognized standards of behaviour in the specific context.³⁰ Thus, the focus is not so much on the psychological experience of the tortfeasor as on objective standards. If the area of the law is regulated by statutory rules defining the required conduct, these rules may be decisive for determining the question of fault. As a general rule the burden of proof is on the injured party. He must prove that the tortfeasor has acted negligently. However, if statutory rules lay down rules on the required conduct and these rules have been violated the burden of proof will often be reversed. In these cases the tortfeasor will be liable unless he can prove that in spite of the violation of the statutory rules he has not acted negligently.³¹ As to GMO cultivation, the Executive Order on cultivation of GMO crops³² contains several formal rules that must be observed by the GMO cultivator.³³ If these rules are violated it is not unlikely that the courts will find that there is a presumption of fault. In that case the GMO cultivator will be regarded as having acted negligently unless he can prove otherwise.

29 von Eyben/Isager, p 239, A Vinding Kruse, Erstatningsret, 5th. ed. 1989 146 ff. T. Iversen, Erstatningsberegning i kontraktsforhold, 2000, p. 820.

30 von Eyben /Isager, p. 62.

31 von Eyben/Isager, p. 87.

32 Executive Order no. 220 of 31st March, 2005.

33 For instance, appendix 1 contains rules as to the required distance between fields where GMO crops are grown and fields with conventional or ecological crops.

(b) To the extent a general strict liability regime may be applicable, please describe its requirements for establishing liability.

- 41 No general strict liability regime is applicable, but see below (c) on the law of neighbourhood conflicts.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 42 Danish law has special – court-developed – rules on neighbourhood problems. According to these rules a neighbour must accept inconveniences that are immaterial or usual in the specific area. If the limit as to what must be accepted is exceeded damages can be claimed for the loss suffered. It has not been quite clear whether liability in these cases was fault-based or strict.³⁴ In cases concerning the liability of public authorities strict liability has been imposed in the decisions U 1999.353 H, U 1999.361 H and 1999.598 H. These cases concerned inconvenience caused by traffic noise from highways built by the state. In the decisions it was made clear that the decisive factor was whether the inconveniences caused to the neighbour were greater than what it was reasonable to expect, seen in the light of the ordinary developments in society with regard to traffic. The basic reason for imposing liability in the cases was the thought that, with regard to compensation, there should be equal treatment of neighbours whose land had been expropriated and neighbours whose land had not been expropriated. Only recently, it has been decided that strict liability also applies in neighbourhood conflicts between individuals. Thus, in the case U 2006.1290 H a mobile telephone company erected a 48 meter tall pylon 2.5 meters from A's property, 13 meters from the garage and 23,5 meters from the house. A claimed damages to cover the diminution in value of his house. The Supreme Court found that the telephone company was liable regardless of the fact that the erection of the pylon had been approved by the municipality. Hence, there was no negligence on the part of the telephone company. The decisive factor was that the placement of the pylon had led to a diminution in value of A's property and that the inconveniences caused by the placement exceeded what A was required to tolerate seen in the light of the ordinary developments in society.
- 43 The question is whether the rule established in the decision U 2006.1290 H would be applicable in a GMO case. Although the case concerns the erection of a pylon it seems unlikely that the established rule should be confined to this

³⁴ In von Eyben /Isager, p. 135 it is implicitly assumed that in general, neighbourhood conflicts are not subject to a rule of strict liability. In contrast, it is assumed in von Eyben/Mortensen/Pagh, *Fast ejendom*, 1st ed. 1999, p. 149, that as regards nuisances of a lasting character there is no need for a „traditional negligence” test. In A. Vinding Kruse, p. 248-249 it is assumed that tort law principles play a minor role in relation to neighbourhood conflicts of a lasting character.

type of case. It must be assumed that the case establishes a more general rule of strict liability in neighbourhood conflicts in which the inconvenience caused has a more lasting character. Consequently, it must be assumed that it could also be applicable in a GMO case.

- 44 The next question is whether inconveniences brought about by GMO cultivation by a neighbour exceeds the limits of what should be accepted. As of now, GMO cultivation is not being practiced on a large scale in Denmark. Therefore, it is difficult to say to what extent inconveniences brought about by GMO cultivation by a neighbour will exceed the limits of what should be accepted. As described above there are several formal rules that must be observed by the GMO cultivator. The GMO cultivator may have an expectation that he will not be liable as long as he lives up to these rules. However, in U 2006.1290 H liability was imposed regardless of the fact that the erection of the pylon had been approved of by a public authority. Therefore, it probably cannot be assumed that the fact that the GMO cultivator has been granted permission to cultivate by means of GMO will exempt him from liability. Most likely, it will nevertheless be possible to reach the conclusion that inconveniences brought about by GMOs exceed the limit of what should be accepted in the light of ordinary developments in society. As GMO cultivation becomes more common the threshold for reaching this conclusion may be lowered.

4. Damage and remedies

(a) How is damage defined and measured?

- 45 There is no clear definition of the concept of damage in Danish tort law. The basic principle for measuring damages is that, economically, the injured party should be put in the same position as he was before the injury. This means that the injured party is entitled to full compensation. It also means that he is not entitled to an enrichment. In relation to property damage is usually measured as the difference between the purchase price of the goods in undamaged condition and the purchase price of the goods in a damaged condition. In addition, loss of profits are compensable. It is possible that damage to crops due to GMO admixture would be characterised as property damage. In that case the principles described above would be applied for measuring damages. It is also possible that the damage would be regarded as pure economic loss. As a general rule pure economic loss is not handled differently from other types of losses in Danish law. Notably, Danish law does not proceed from a principle of no compensation for pure economic loss. Thus, presumably the starting point would be to apply the rules described above also if the loss is considered

to be purely economic.³⁵ The claim would be subject to the general rules of adequacy limiting the extent to which damages can be claimed.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 46 There are no general rules on this question in Danish law. However, case law shows that in the context of neighbourhood conflicts a diminution in value of the neighbour's property caused by the mere risk that the neighbour will suffer some kind of inconvenience is sufficient for claiming compensation.³⁶ Thus, in U 1998.1515 H fear of a health risk was regarded as a basis for awarding damages for diminution in value. The case concerned a house which had been bought by A. Afterwards the municipality (M) placed a high tension line near the house. At the time there was a debate as to whether high tension lines could cause health problems such as cancer. The fear that this might be so caused the value of A's house to drop. A claimed damages for the lost value from M. The Supreme Court found that A was entitled to damages for the lost value. It was argued that compensation should only be payable to the extent that the inconveniences exceeded the level of what had to be tolerated. However, the Supreme Court disregarded this argument and awarded full compensation.³⁷ The case can be compared to the GMO situation described above where the value of a crop drops because of fear that it contains GMO admix. Although U 1998.1515 H concerned a different kind of harm (possible health risk), it must be assumed that a diminution in value caused by mere fear will also in other cases be sufficient for awarding damages.³⁸ Normally, however, damages will only be awarded to the extent that the inconveniences exceed the level of what should be tolerated – taking into account the ordinary development in society. In U 1998.1515 H the surrounding houses had been granted compensation by way of expropriation. In legal literature it is presumed that the court has wished to achieve equal treatment of the plaintiff and the owners of the houses that has been expropriated.³⁹ Until recently therefore, it has seemed doubtful whether a claim could also be made against a private individual outside the expropriation context. However, on the basis of U 2006.1290 H, described above it must be assumed that individuals can be liable according to the same rules. Therefore, it must be assumed that it would also be possible to claim damages from a GMO farmer in the case where there

35 von Eyben /Isager, p. 252.

36 von Eyben/Mortensen/Pagh, p. 147.

37 When damages were not reduced in U 1998.1515 H it was probably due to the fact that the case concerned fear of *health* risk, see Lene Pagter Kristensen, UfR2000B.403, at p. 412-413

38 von Eyben/Mortensen/Pagh, p. 215.

39 Lene Pagter Kristensen, UfR2000B.403, at p. 412-413.

is fear that the GMO has spread and this has led to a decrease in the value of the crops belonging to the conventional farmer.

47 Where does your legal system draw the line between compensable and non-compensable losses?

48 See the answer to question (b) above.

(c) What are the criteria for determining the amount of compensation in general?

49 See the answer to question (a) above.

(d) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

50 There is no financial limit to liability but the injured party has a duty to mitigate the loss.

(e) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

51 The special rules in relation to cultivation of GMO crops do not oblige the cultivators to obtain liability insurance.

(f) Which procedures apply to obtain redress in such cases?

52 See the answer to question (e)

(g) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

53 See the answer to question (e).

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

54 According to § 9 in the Governmental Notice on Compensation the person who claims damages under the compensation scheme must cover the expenses associated with sampling and testing. There is no general monitoring system.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 55 See the answer to question III 1.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 56 According to § 9 in the Executive Order on Compensation the Plant Directorate reimburses the person claiming damages under the compensation scheme if the test proves actual GMO presence.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules?

- 57 No special rules are in force

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 58 As regards questions of jurisdiction, the general rule is found in the Civil Procedure act (*retsplejeloven*)⁴⁰ § 235. According to this rule the defendant must be sued in the jurisdiction where he lives. However, according to § 243 in cases concerning tort actions the defendant can also be sued in the jurisdiction in which he is domiciled. If the case concerns cross-border issues the Brussels Convention from 1968⁴¹ can be applicable, cf. the Civil Procedure act § 247.⁴² Accordingly, as a general rule the defendant must be sued in the country in which he is domiciled, cf. art. 2. However, in cases concerning tort actions the defendant can also be sued in the country in which the harmful event occurred, cf. art. 5, sec. 3.⁴³ Thus, in cases concerning GMO spreading cross boarder the injured party will have a choice between suing the GMO – cultivator in the country in which he is domiciled and suing in the country in which the damage occurred, i.e. typically the country in which the injured party is domiciled.

40 Act no. 910 of 27th. September 2005 with later amendments.

41 EC Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, Brussels 1968.

42 If the defendant resides in Norway, Iceland or Switzerland the Lugano Convention is applicable.

43 According to case 21/76 Bier, Saml. 1976.1735 the plaintiff is free to choose between the country in which the harmful act took place and the country in which the consequences of the harmful act occurred.

- 59 As regards questions on choice of law the rules in Danish law are judge made. Normally, the general rule is described as the *lex loci delicti*.⁴⁴ This means that the law of the country in which the harm took place is to be applied. However, it is not clear which rule to apply when the harmful act takes place in one country but the effect occurs in a different country.⁴⁵ Consequently, it would be unclear which rule to apply in a case where GMO has spread cross border from one crop to another.

44 See for instance U 1963.838.

45 Joseph Lookofsky, *International privatret*, 3rd. ed., 2004, p. 102.

6. ESTONIA

Irene Kull/Villu Kõve

I. Special Liability or Compensation Regimes

1. Introduction

- 1 In Estonia there is no special regulation of civil liability concerning the deliberate release of GMOs into the environment and their admixture with ordinary crops. Neither is such kind of special regulation being drafted at the moment. The same applies to different kinds of assurances (obligatory liability insurance, guarantees, compensation funds).
- 2 There are two laws which directly regulate GMOs in Estonia – the Deliberate Release Into the Environment of Genetically Modified Organisms Act (DREGMOA)¹ (originating from Directive 2001/18/EC of the European Parliament and of the Council on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC) and the Contained Use of Genetically Modified Micro-Organisms Act² (GMMO) (originating from Directive 90/219/EEC of the Council on the contained use of genetically modified micro-organisms). The Food Act³, Feedingstuffs Act⁴, Plant Protection Act⁵ and Fertilizers Act⁶ have provisions concerning GMOs as well. All those legal acts consist of public law regulations of GMOs, especially the right to use and control GMOs as well as the punishments for violations of the law.
- 3 Regulations regarding civil liability for GMOs can be found in § 32 of DREGMOA, according to subsection 1 of which, damage caused by the ille-

1 Deliberate Release Into the Environment of Genetically Modified Organisms Act (geneetiliselt muundatud organismide keskkonda viimise seadus). Passed 14 April 2004. State Gazette/Riigi Teataja (RT) I 2004, No. 30, Art. 209. All legal acts are available in English: www.legaltext.ee.

2 Contained Use of Genetically Modified Micro-Organisms Act (geneetiliselt muundatud mikroorganismide suletud keskkonnas kasutamise seadus). Passed 21 November 2001. RT I 2001, No. 97, Art. 603; last amendments 19.06.2002.

3 Food Act (toiduseadus). Passed 25 February 1999. RT I 1999, No. 30, Art. 415; consolidated text RT I 2002, 13, 81; last amendments 19.06.2002.

4 Feedingstuffs Act (söödaseadus). Passed 23 January 2002. RT I 2002, No. 18, Art. 97; last amendments 19.06.2002.

5 Plant Protection Act (taimekaitse seadus). Passed 21 April 2004. RT I 2004, No. 32, Art. 226; last amendments 08.12.2005.

6 Fertilizers Act (väetiseseadus). Passed 11 June 2003. RT I 2003, No. 51, Art. 352.

gal or deliberate release of GMOs into the environment or damage from the illegal marketing of GMOs or genetically modified products will be compensated, as provided by the Law of Obligations Act (LOA)⁷ i.e. under the general rules of civil liability. According to § 32 subsection 2 of DREGMOA if a person does not get rid of the GMOs legally and deliberately releases them into the environment or does not clean the pollution caused by the released GMOs, the Environmental Inspectorate will apply coercive measures pursuant to the procedure provided by Substitutive Enforcement and Penalty Payment Act⁸.

- 4 According to § 32 subsection 3 of DREGMOA the Minister of the Environment will evaluate the cleaning up costs of the pollution at the expense of the polluter. Paragraph 14 subsection 1 of GMMO provides that the pollution caused by an accident must be cleaned up by the „user”. If the „user” does not clean up the pollution from the deliberate release of GMOs into the environment, according to subsection 2 of the same paragraph, the clean up is organized by the body of environmental supervision at the expense of the „user” and according to subsection 3 of the same paragraph the Substitutive Enforcement and Penalty Payment Act will be applied.
- 5 Due to the fact that DREGMOA refers to the Law of Obligations Act concerning the compensation of damages, the authors will now explain the general system of delictual liability according to LOA. According to LOA § 1043, whoever causes damage has to compensate the victim for it if his actions caused the damage or if he was responsible for it according to the law. In addition to fault-based liability LOA also provides strict liability for damage caused by major sources of danger (LOA § 1056 – 1067). The scale of compensation is regulated by LOA § 127 – 140.
- 6 Additionally to the previously mentioned legal acts, the Law of Property Act⁹ regulates damage to property (protection of ownership in the case of violation unrelated to loss of possession, § 89 of the Law of Property Act) and damage caused by nuisance (§ 143 of the Law of Property Act) may also be relevant (for example when one of the neighbours grows GMOs). See part II 3c.
- 7 All in all, it cannot be said that civil liability concerning GMOs is regulated coherently in the Estonian legal system. First of all, it is not clear if it regulates liability without fault or excusability-based liability or fault-based liability (presumably it must be liability without fault). The range of compensation

7 Law of Obligations Act (võlaõigusseadus). Passed 28 September 2001, entered into force 1.07.2002. RT I 2001, No. 81, Art. 487; last amendments 19.10.2005.

8 Substitutive Enforcement and Penalty Payment Act (asendustäitmise ja sunniraha seadus) Passed 9 May 2001. RT I 2001, No. 50, Art. 283; last amendments 15.11.2001.

9 Law of Property Act (asjaõigusseadus). Passed 9.06.1993. RT I 1993, No. 39, Art.590; last amendments 22.04.2004.

from personal and material damage to economical damage is not clear either. There is no court practice relating to these provisions in Estonia and no scientific literature on the subject. The court practice concerning civil liability, as it is regulated by the Law of Obligations Act, is also scarce. Therefore to answer the questions, mainly legal acts (DREGMOA, GMMO and LOA) have to be taken into account.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 8 There are no special regulations and court practice in Estonia concerns finding the link between the growing or marketing of GMOs and the damage brought upon others by this. According to § 32 subsection 1 of DREGMOA there must exist a causal link between GMOs or the illegal deliberate release of GMOs into the environment or the marketing of genetically modified products and the damage caused by it. According to § 14 subsections 1 and 2 of GMMO there must be a causal link between an accident (accidental release of GMOs into the environment) and the pollution caused by it.
- 9 It is said in LOA that to get compensation for damage there must be causation – according to § 127 subsection 4 of LOA a person shall compensate for damage caused only if the circumstances upon which the liability of the person is based and the damage is caused are related in such a manner that the damage is a consequence of the circumstances (causation). It is the rule – *conditio sine qua non*. It must be observed together with the general purpose of compensation (for instance Supreme Court ruling from Dec. 21, 2005 in the civil matter No. 3-2-1-137-05), which is as said in § 127 subsection 1 of LOA to place the aggrieved person in a situation as near as possible to that in which the person would have been in if the circumstances which are the basis for the compensation obligation had not occurred. Causation does not have to be a direct link between the actions of the person and the consequences (damage), i.e. the damage does not have to be the result of the breaking of the law, but it can occur due to a sequel of events, that are started by the person's actions (Supreme Court ruling from Dec. 10.12, 2005 on a civil matter No 3-2-1-125-03 and a ruling from Dec. 7, 2005 in a civil matter No. 3-2-1-149-05). To establish causation elimination and substitution methods are used. With the elimination method the damage is in causation with the actions of the person when the person's actions were an unavoidable prerequisite for the damage that resulted, i.e. there would not have been any damage if there had not been certain actions. Thus in order to make sure that there is causation we need to answer the question whether there would have been damage if the defendant had not acted in this way. If the answer is no then the defendant has to prove that there

would be damage without him having broken the law or contract (Supreme Court ruling from Dec. 7, 2005 in a civil matter No. 3-2-1-149-05). If it is established that the damage would have occurred even without the defendant's actions it cannot be regarded as a substantial cause and the defendant is not liable for it. A method of substitution is used in cases of inactivity and then it is investigated whether the consequences would have occurred if the defendant had acted in the way the plaintiff demanded. If only the *conditio sine qua non* rule applied to establish causation, it would impose large-scaled liability concerning compensation upon the obligor and it would increase the number of potentially liable persons. In the case of delictual liability the extent of any claims for compensation of damage are limited by the so-called theory of the purpose of breached obligation (LOA § 127 subs. 2), according to which damages shall not be compensated to the extent that the prevention of damage was not the purpose of the obligation or provision due to the non-performance of which the compensation obligation arose. In order to establish the purpose of the obligation criteria of certifying adequate causation must be taken into account – if the damage that was received from breaking that kind of obligation is highly unlikely then generally it may be presumed that the purpose of the obligation was not to prevent that kind of damage. Court practice concerning causation according to LOA has not yet been developed.

- 10 Costs regarding certifying the damage and presenting claims, for instance possible expert costs to establish causation are connected to the definition of direct pecuniary damage as in § 128 subsection 3 of LOA and are thus compensable. Fees for experts shall be paid in advance by the party who submits the application from which such costs arise (§ 148 subs. 3 Code of Civil Procedure). In the case of a poor economic state one may demand the State Legal Aid to pay the costs, i.e. leaving all the costs partly or fully to be paid for by the state (§ 180 subs. 1 limb 1 Code of Civil Procedure). If the plaintiff wins the case, the expert's costs with other legal costs will be paid by the other party according to § 162 subsection 1 of Code of Civil Procedure

(b) How is the burden of proof distributed?

- 11 According to § 230 subsection 1 of Code of Civil Procedure each party shall prove the facts on which the claims and objections of the party are based if the law does not provide otherwise. Thus, if the aggrieved party demands compensation he as a plaintiff has to establish the circumstances that prove he's demands – in the case of a delictual claim he has to prove that the other party's actions were illegal and that the actions caused the damage. In the case of fault-based liability the tortfeasor has to prove that he is not at fault in causing the damage as demanded by § 1050 subsection 1 of LOA. Special regulations concern non-fault liability (see part I section 3a). If a dangerous structure or thing is a potential cause of damage, it shall be presumed according to § 1058 subsection 2 of LOA that the damage is caused as a result of a particular danger arising from the structure or thing. This does not apply if the struc-

ture or thing is operated according to requirements and if the operation thereof is not disturbed. Thus, if we consider that liability for GMOs is a strict liability, the burden of proof for the causality partly turns in favour of the aggrieved party.

- 12 See part I 2c about liability for damage caused by multiple causes.

(c) How are problems of multiple causes handled by the regime?

- 13 There is no special regulation in the law concerning GMOs. If several persons are liable for the same damage caused to the third party, they shall be solidarily liable for payment of the compensation (LOA, § 137 subs. 1). In relation to the persons who caused the damage, liability shall be divided, according to § 137 subsection 2 of LOA, taking into account all circumstances, in particular the gravity of the non-performance or the unlawful character of other conduct and the degree of risk borne by each person. According to § 69 subsection 2 of LOA if a solidary obligor has performed the solidary obligation, the claim of the obligee against the other obligors transfers to the solidary obligor (right of recourse of solidary obligor) except to the extent of the solidary obligor's own share of the obligation. According to § 69 subsection 3 of LOA the other obligors have a right of recourse against the obligor who is released from the solidary obligation to the extent of the obligor's share of the obligation in relation to the solidary obligors. This does not apply if the obligee reduces the claim thereof to the extent of the share which, the obligor, with regard to whom the obligee waived the claim is to bear in relations between the solidary obligors. If a solidary obligor fails to perform the share thereof, in the obligation with regard to the solidary obligor who performed the obligation, the solidary obligor who performed the obligation and the other solidary obligors according to § 69 subsection 6 of LOA shall be liable for the performance of such share, proportionally to their shares in the obligation. The claim against the solidary obligor who fails to perform the obligation transfers to the solidary obligor who performed the obligation and to the other obligors. As said in § 70 subsection 1 of LOA the limitation period for the right of recourse by a solidary obligor who has performed the solidary obligation expires at the time when the claim of the obligee against the solidary obligor, against whom the right of recourse is exercised would expire. According to § 70 subsection 2 of LOA the limitation period for the right of recourse by a solidary obligor shall not expire earlier than six months as of the date on which the solidary obligor performed the obligation or the obligee filed an action with a court against the obligor for the performance of the obligation.
- 14 If several persons may be liable for the damage caused and it has been established that any of these persons could have caused the damage, then according to § 138 subsections 1 and 3 of LOA compensation for the damage may be claimed from all such persons to an extent in proportion to the probability that the damage was caused by the person concerned. The rule of § 138 subsection

2 of LOA is that a person obligated to compensate for the damage shall be released from liability if the person proves that the damage was not caused thereby. That kind of regulation eases the burden of proof for the aggrieved party.

- 15 In legal theory, hypothetical causality is known as a situation where the damage was caused by the actions of the obligor but the same damage would have occurred later due to a different factor (about causality in Estonian legal system see I. Kull, M. Käerdi, V. Kõve. *Võlaõigus I. Üldosa/ Law of Obligations I. General Part*. Tallinn, Juura, 2005, pp. 271-272, in Estonian). As a rule, the other factor (i.e. the other cause of damage) has to be taken into account when making the defendant liable for the damage or making the defendant compensate for the damage, i.e. generally when there is another factor involved the defendant has to compensate less for the damage or he is not liable for the damage at all. This rule applies in the first place to damage occurring in the future (loss of profit). However, this principle does not apply when the other cause of the damage would bring about liability for the third party. Compensation for the damage shall not be reduced when the damage has already occurred before the other factor could occur.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 16 As already mentioned in point 1, it is not exactly clear according to Estonian law whether delictual liability is a fault-based or strict liability regime in the case of GMOs. The reference to LOA in § 32 subsection 1 of DREGMOA leaves it open and makes it possible to apply both types of liability. In § 14 subsection 1 of GMMO where there is no reference to LOA, a firmer answer cannot be found. In the case of unlawfully caused damage a fault-based liability regime is presumed if law does not provide otherwise (LOA, § 1043). Despite the lack of court practice concerning GMOs and also the limited number of cases concerning strict liability, it may be assumed that liability for damage caused by GMOs is strict liability under the Estonian legal system. That may be concluded from the wording of the provisions of DREGMOA and GMMO as well as the general logic of these laws, but also from § 1056 subsection 2 of LOA, which probably allows GMOs to be deemed to be a major source of danger. In this provision it is said that a thing or an activity is deemed to be a major source of danger if, due to its nature or to the substances or means used in connection with the thing or activity, major or frequent damage may arise therefrom even if it is handled or performed with due diligence by a specialist. According to § 1058 subsection 1 of LOA the owner of a thing shall be liable for damage caused as a result of a particular danger arising from the thing, among others, due to its environmentally hazardous characteristics and for damage caused as a result of particular danger arising from the

thing for any other reason. It is not precluded to (at least partly) handle liability from GMOs according to § 1061 of LOA as the liability of a producer when GMOs may be regarded as defective products.

- 17 In spite of the above, the liability of a producer does not preclude or restrict the right to file claims on any other legal basis, including claims for compensation of unlawfully and wrongfully caused damage (LOA, § 1056 subsection 3 and § 1061 subsection 5). As fault-based liability is broader than strict liability (for example in case of loss of profit), the fault-based liability might be more meaningful for that reason (see part I 4a). According to LOA § 1043 a person (tortfeasor) who unlawfully causes damage to another person (victim) shall compensate for the damage caused if the tortfeasor is guilty of causing the damage or is liable for causing the damage pursuant to the law. Causing harm according to § 1045 subsection 1 of LOA is unlawful if, above all, the damage causes the death of a victim (point 1), causes bodily injury to or damage to the health of the victim (point 2), consists of a violation of the rights of ownership or a similar right or rights of possession of the victim (point 5), interferes with the economic or professional activities of a person (point 6), violates a duty arising from law (point 7) or is some intentional behaviour contrary to good morals (point 8). According to § 1050 subsection 1 of LOA a tortfeasor is not liable for causing the damage if the tortfeasor proves that he is not guilty of causing the damage, unless otherwise provided by law. If the victim (injured person) claims compensation for the damage, he as a plaintiff bears the burden of proving the facts on which the claim is based and in the case of delictual liability, the unlawful action of the tortfeasor (*tekitaja õigusevastast tegu*), damage and the causality between the actions and damage. In the case of fault-based liability a tortfeasor must prove that he is not guilty of the damage to be free from liability (see part I section 2b).
- 18 According to § 1050 subsection 2 of LOA the situation, age, education, knowledge, abilities and other personal characteristics of a person shall be taken into consideration upon the assessment of the person's guilt (i.e. the tortfeasor's subjective characteristics shall be taken into account).
- 19 The limitation period for a claim arising from unlawfully caused damage shall be three years as of the moment when the entitled person becomes or should have become aware of the damage and of the person obligated to compensate for the damage (§ 150 subs. 1 LGPCCA¹⁰). A claim arising from unlawfully caused damage expires not later than ten years after the performance of the act or occurrence of the event which caused the damage. The limitation period for a claim arising from the causation of death, a bodily injury or damage to health or from deprivation of liberty shall be three years as of the moment when the entitled person became or should have become aware of the damage

10 General Part of Civil Code Act (tsiviilseadustiku üldosa seadus). RT I 2002, No. 35, Art. 216, adopted 27.03.2002; last amendments 19. 11. 2003.

and of the person obligated to compensate for the damage, regardless of the legal basis of the claim. The claims expire not later than thirty years as of performance of the act or occurrence of the event which caused the damage (§ 153 subs. 3 LGPCCA). For liability for damage caused by other persons see part I section 2c.

(b) If its is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 20 As mentioned before (see part I section 3a), liability for GMOs will probably be deemed to be non-fault based liability (i.e. risk-based liability) or at least partly, the liability of a producer. According to § 1056 subsection 1 of LOA if the damage caused results from a danger characteristic to a thing constituting a major source of danger or from an extremely dangerous activity, the person who manages the source of that danger shall be liable for any damage caused regardless of the person's guilt. § 1058 subsection 1 of LOA prescribes that the owner of a structure or a thing shall be liable for any damage caused as a result of a particular danger arising from the thing, among other things, due to its environmentally hazardous characteristics and for any damage caused as a result of a particular danger arising from the thing for any other reason. To contest the basis brought in § 1058 subsection 2 of LOA that the damage is caused as a result of a particular danger arising from the structure or thing, the owner has to prove that the structure or thing is operated according to requirements and that the operation thereof is not disturbed. In order to avoid liability, the owner according to § 1058 subsection 3 of LOA has to prove that the damage is caused within the boundaries of a marked immovable in the possession of the owner of the dangerous structure, the damage is caused by *force majeure* or the victim participated in the operation of the dangerous structure or thing. According to § 1058 subsection 4 of LOA if a dangerous structure or thing is operated according to requirements and the operation thereof is not disturbed, the owner of the structure or thing is not liable for damaging a thing of the victim in so far as the thing is not materially damaged or, if it is damaged, to an extent deemed to be normal considering the local circumstances. The limitation period for claims based on strict liability is the same as the limitation period for claims based on fault –based liability (see also part I sect. 3a).
- 21 According to § 1061 subsection 1 of LOA the producer shall be liable for causing the death of a person and for causing bodily injury to or damage to the health of a person if this is caused by a defective product. If a defective product causes the destruction of or damage to a thing, as said in § 1061 subsection 2 of LOA the producer shall be liable for the damage caused thereby, only if this type of product is normally used outside economic or professional activities and the victim mainly used the product outside their economic or professional activities and the extent of the damage caused exceeds an amount

equal to 500 euro. The producer, according to § 1064 subsection 1 of LOA, shall not be liable for damages arising from a product if the producer proves that he did not place the product on the market, circumstances exist on the basis of which it may be presumed that the product did not have the deficiency which caused the damage at the time that the product was placed on the market by the producer, the producer did not manufacture the product for sale or for marketing or in any other manner produce or market it in the course of the producer's economic or professional activities, the deficiency is caused by the compliance of the product with the mandatory requirements as at the time of placing the product on the market and due to the level of scientific and technical knowledge at the time of placing the product on the market, the deficiency could not have been detected. According to subsection 2 of the same paragraph a producer of raw materials or a part of a product shall not be liable for damage if the producer proves that the deficiency of the raw material or part of the product is caused by the construction of the finished product or the instructions provided by the producer of the finished product. The limitation period for claims arising from the liability of a producer, according to § 1066 subsection 1 of LOA is three years as of the date on which the victim becomes aware or should reasonably have become aware of the damage, the deficiency and the identity of the producer and regardless of that, claims according to subsection 2 of the same paragraph shall terminate after ten years have passed as of the date on which the product which caused the damage is placed on the market, unless an action has been filed with a court by that time. See part I sect. 2 about establishing causality and liability of several persons to compensate for the damage.

(c) If it is no liability regime as such, but any other variety of compensation mechanism (including, but not limited to, administrative law measures, private and/or state funding), please describe its nature and functioning.

- 22 The environmental inspectorate bodies (i.e. state bodies) have an obligation to eliminate environmental pollution at the tortfeasor's expense. It stems from § 32 subsection 2 of DREGMOA according to which upon failure to remove, as required, the genetically modified organisms released into the environment or failure to eliminate the environmental pollution caused by the release into the environment of genetically modified organisms, the Environmental Inspectorate may apply a coercive measure pursuant to the procedure provided for in the Substitutive Enforcement and Penalty Payment Act. The same principle is provided in § 14 subsection 2 of Substitutive Enforcement and Penalty Payment Act when the user does not clean up the pollution caused by the deliberate release of GMOs into the environment. However, the extent of this obligation and its comparability with the tortfeasor's compensation obligation is not clear. Presumably it is not meant with this law that the state should offer monetary compensation for damage to victims, but in the first place, the aim of the law is to prevent the future spread of GMOs.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

23 There are no differences in the law.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country? In particular, can claims based on general tort law still be brought either simultaneously or subsequently?

24 According to § 1056 subsection 3 and § 1061 subsection 5 of LOA strict liability or the liability of a producer do not preclude or restrict the right to file claims on any other legal basis, including claims for compensation of unlawfully and wrongfully caused damage. The motive for this could be the larger scale of compensation (see part I section 4a).

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

25 The purpose of compensation for damage according to § 127 subsection 1 of LOA is to place the aggrieved person in a situation as near as possible to that in which the person would have been in if the circumstances which are the basis for the compensation obligation had not occurred (*Differenztheorie*). The extent of compensation for damage is restricted by § 127 subsection 2 of LOA, according to which damages shall not be compensated to the extent that prevention of damage was not the purpose of the obligation or provision and due to the non-performance of which the obligation to compensate arose. In the case of contractual obligations the extent of compensation for damage is connected with foreseeability (§ 127 subs. 3 LOA). Another basis for the compensation of damages is causality (see part I section 2a).

26 Compensation for harm arising from the death of a person, health damage, bodily injury and destruction or loss of a thing may be claimed in cases of fault-based liability as well as strict liability (risk liability).

27 In the case of an obligation to compensate for the damage arising from the death of a person, according to § 129 of LOA the obligated person shall compensate for the expenses arising from the death of the deceased person, in particular for reasonable funeral expenses, reasonable medical expenses relating to the health damage or bodily injury which caused the death of the person, and the damage arising from the aggrieved person's interim incapacity for work and maintenance costs for the dependant of the deceased.

28 In the case of an obligation to compensate for damage arising from health damage or bodily injury caused to a person, according to LOA § 130 subsec-

tion 1 the obligated person shall compensate the aggrieved person for expenses arising from such damage or injury, including expenses arising from the increased needs of the aggrieved person, and damage arising from total or partial incapacity to work, including damage arising from a decrease in income or deterioration of the future economic potential of the aggrieved person. According to subsection 2 of the same paragraph the obligated person shall pay the aggrieved person a reasonable amount of money as compensation for the non-pecuniary damage caused to the person by such damage or injury. part I section 4d deals with the compensation for damage arising from the destruction or loss of a thing.

- 29 According to LOA § 133 subsection 1 if damage is caused by environmentally hazardous activities, damage related to a deterioration in environmental quality shall also be compensated for. Expenses relating to preventing an increase in the damage and to applying reasonable measures for mitigating the consequences of the damage, and the damage arising from the application of such measures shall also be compensated for. According to LOA § 133 subsection 2 damage to the environment and expenses concerning pollution shall be compensated for to the extent and pursuant to the procedure provided by law. However, there is still no special regulation in the law and the real area of application of LOA § 133 is unclear.
- 30 Compensation for economical damage concerning GMOs is also unclear. Pecuniary damage includes, according to LOA § 128 subsection 2, loss of profit which according to subsection 4 of the same paragraph is loss of the gain which a person would have been likely to receive in the circumstances, in particular as a result of the preparations made by the person, if the circumstances on which the compensation for damage is based had not occurred. Loss of profit may also include the loss of an opportunity to receive a gain. Regarding strict liability it is prescribed in § 1056 subsection 1 of LOA that a person who manages a major source of danger shall be liable for the death of, bodily injury to or damage caused to the health of a victim, and for damaging a thing of the victim's. Liability of a producer is also, according to § 1061 subsections 1 and 2 of LOA, restricted by health damage or bodily injury and damage to thing. In the case of fault-based delictual liability the extent of compensation for pecuniary damage is also unclear (compared to contractual liability where pecuniary damage as a rule will be compensated). The Supreme Court of Estonia has found that in the case of the damage or destruction of a thing, economic damage usually cannot be compensated and that the law on non-contractual liability does not protect all kinds of property but certain legal rights and interests protected by law. Compensation for other damage beside the costs concerning the restoration of a thing becomes relevant only if it was the purpose of the provision due to the non-performance of which the damage arose (see Supreme Court ruling from May 13, 2005 on the civil matter No. 3-2-1-64-05). As one of the goals of the regulation concerning GMOs is to prevent the mixing of GMOs with „normal” crops, it is possible that one

can demand compensation for economic damage due to the protective purpose of the provisions. However, at the moment it is not certain.

- 31 Damage shall generally be compensated in a lump sum. In the event that bodily harm is caused, the damage shall usually be compensated for in instalments (§ 136 LOA). If damage is caused in part by circumstances dependent on the aggrieved party or due to a risk borne by the aggrieved party who, amongst others things, failed to perform any act which would have reduced the damage caused (if the aggrieved person could have reasonably been expected to do so), the amount of compensation for the damage shall be reduced to the extent that such circumstances or risk contributed to the damage (§ 139 LOA). According to § 127 subsection 5 of LOA any gain received by the aggrieved party as a result of the damage caused, particularly the costs avoided by the aggrieved party, shall be deducted from the compensation for the damage unless deduction is contrary to the purpose of the compensation. If damage is established but the exact extent of the damage cannot be established, including in the event of non-pecuniary damage or future damage, the amount of compensation according to § 127 subsection 6 of LOA shall be determined by the court. According to LOA § 140 subsection 1 the court may reduce the amount of compensation for damage if compensation in full would be grossly unfair with regard to the obligated person or not reasonably acceptable for any other reason. In such a case, all circumstances, in particular, the nature of the liability, relationships between the persons and their economic situations including insurance coverage, shall be taken into account.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?

- 32 It cannot be answered in one way because there is no special regulation or court practice. Also in order to give an exact answer it must be possible to demand compensation for economic damage (see part I section 4a). According to LOA § 128 subsection 3, direct pecuniary damage includes primarily, the value of the lost or destroyed property or the decrease in the value of property due to deterioration (even if such decrease occurs in the future) and reasonable expenses which have been incurred or will be incurred in the future due to the damage, including reasonable expenses relating to the prevention or mitigation of damage and receipt of compensation, expenses relating to the establishment of the damage and submission of claims relating to compensation for the damage. Loss of profit according to § 128 subsection 4 of LOA is loss of the gain which a person would have been likely to receive in the circumstances, in particular, as a result of the preparations made by the person, if the circumstances on which the compensation for damage is based did not occur. Loss of profit may also include the loss of an opportunity to receive gain. It may be possible for a farmer to get compensation for direct pecuniary

damage as well as for loss of profit, due to the possibility of damage occurring in the future. Proving causality is also important (see part I section 2).

- 33 If damage is established but the exact extent of the damage cannot be established, including in the event of future damage, the amount of compensation, according to LOA § 127 subsection 6 such amount shall be determined by the court. The same principle is provided in § 233 subsection 1 of Code of Civil Procedure, which says that if, during civil proceedings the damage is ascertained but the exact extent of the damage cannot be established, or if the establishment of the amount of the damage is unreasonably burdensome or expensive, the amount of compensation shall be determined by the court.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 34 There is no special regulation concerning this exact subject. Principally, claims for damages from other farmers cannot be ruled out, however, it is questionable whether according to § 127 subsection 2 of LOA the damage claims of such persons may be compensated. First of all, it depends on the extent that the prevention of damage was the purpose of the special regulations concerning GMOs.

(d) Which are the criteria for determining the amount of compensation?

- 35 In the case of an obligation to compensate for damage arising from the destruction or loss of a thing, according to § 132 subsection 1 of LOA, compensation shall be paid for an amount covering the reasonable expenses made to acquire a new thing of equal value. If by the time the damage is caused the value of the thing has considerably decreased in comparison to the value of an equivalent new thing, the decrease shall be taken into account in a reasonable manner when determining the amount of compensation for the damage. According to LOA § 132 subsection 2 if acquisition of a new thing of equal value is not possible, the value of the thing which was destroyed or lost shall be compensated for. If damage is caused to a thing, according to subsection 3 of the same paragraph, compensation for the damage shall cover, in particular, the reasonable costs of repairing the thing and the potential decrease in the value of the thing. If repairing the thing is unreasonably expensive in comparison to the value of the thing, compensation shall be paid pursuant to LOA § 132 subsection 1. If the damaged thing was necessary or useful for the aggrieved person, in particular, for the person's economic or professional activities or work, compensation for the damage shall also cover the costs of using a thing of equal value during the time in which the damaged thing is being repaired or a new thing is being acquired. If the person does not use a thing of equal value, the person may claim compensation for loss of the advantages of use which the person could have benefited from during the time in which the thing is repaired or a new thing is being acquired. LOA § 134 subsection 4

makes it possible to claim a reasonable amount of money as compensation for non-pecuniary damage.

- 36 Pure economic damages may be compensated on the basis of fault liability and according to the LOA § 128 subsection 3. Direct pecuniary damage includes, primarily, the value of the lost or destroyed property or the decrease in the value of the property due to deterioration even if such decrease occurs in the future, and reasonable expenses which have been incurred or will be incurred in the future due to the damage, including reasonable expenses relating to the prevention or mitigation of damage and receipt of compensation. According to LOA § 128 subsection 4 loss of profit may also include the loss of an opportunity to receive a gain. However, in this case it is important to prove causality (see also part I section 2).
- 37 When it is certified that damage was caused, but the exact cost of the damage cannot be determined, then the court shall decide how much it ought to be (see part I section 4b). The court has to take into account generally acknowledged principles when determining the amount of compensation (see Supreme Court ruling from Dec. 21, 2004 on civil matter No. 3-2-1-145-04). About the determination of the amount of the damage see part I 4a and 4b.

(e) Is there a financial limit to liability?

- 38 There is no maximum amount of compensation in the law concerning GMOs or just compensation for damage altogether. However, the court according to LOA § 140 subsection 1 may reduce the amount of compensation for damage if compensation in full would be grossly unfair with regard to the obligated person or not reasonably acceptable for any other reason. In such a case, all circumstances, in particular the nature of the liability, relationships between the persons and their economic situations, including insurance coverage, shall be taken into account. If damage is caused, in part by circumstances dependent on the aggrieved party or due to a risk borne by the aggrieved party, amongst other things, if he failed to perform any act which would have reduced the damage caused if he could reasonably have been expected to do so, the amount of compensation for the damage shall be reduced to the extent that such circumstances or risks contributed to the damage (LOA § 139).

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses, and/or are farmers required to take out first-party insurance which would cover such losses?

- 39 According to Estonian law it is not necessary for people operating with GMOs to take out liability insurance or to have some other sort of compensation system to cover potential losses and also farmers are not required to take out insurance which covers such losses.

(g) Which procedures apply to obtain redress?

- 40 As operators are not required to have insurance (see part I 4f), redress demands cannot be made. For more about recourse claims concerning relations between several tortfeasors see part I section 2c. For more about the state claiming damages for cleaning up pollution caused by the tortfeasor see part I section 3c.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 41 Authorisation for the deliberate release of GMOs into the environment and authorisation for its marketing may be suspended or revoked according to DREGMOA § 12 subsections 7-9 and § 25 subsection 2 when risks related to it become evident.
- 42 According to § 1055 subsection 1 of LOA the victim or the person who is threatened has the right to demand in the court of law that behaviour which causes damage be terminated or refrained from. According to LOA § 1055 subsection 2 the right to demand that behaviour which causes damage be terminated does not apply if it is reasonable to expect that such behaviour can be tolerated in human co-existence or due to significant public interest. In such a case, the victim has the right to file a claim for compensation for unlawfully caused damage. Additionally, claims may be filed if one of the neighbours grows GMOs contrary to provisions prohibiting damage to property (See Law of Property Act § 89 – protection of ownership in cases of violations unrelated to loss of possession) and the spread of damaging nuisances (Law of Property Act § 143). See part II section 3c.
- 43 An action may be secured before the filing of an action if failure to secure the action may render compliance with the judgment difficult or impossible with the measures provided in the § 328 (1) of Code of Civil Procedure Act.

5. Compensation funds

- 44 There are no compensation funds in Estonia which cover damages caused by GMOs and at the moment implementation of these kind of measures is not planned.

6. Comparison to other specific liability or compensation regimes

- 45 As there is no important special regulation. Liability concerning GMOs is part of the general strict and fault-based liability, which is not exceptional in any way.

- 46 Generally environmental protection is regulated by the Nature Conservation Act and according to § 77 subsection 1, damage caused to the environment by destroying or damaging protected natural objects and specimens of protected species must be compensated for. The Environmental Inspectorate and administrators of protected natural objects have the right according to subsection 2 of the same paragraph to file a claim with a court for all the damages caused to a protected natural object or a specimen of a species. The paragraph in hand does not (at least not literally) regulate the compensation for damage caused to the environment by deliberately releasing GMOs into the environment.
- 47 Civil liability regarding the escape of genetically modified animals in the course of an animal experiment is also regulated. In this case according to § 57 subsection 2 of the Animal Protection Act the person conducting the animal experiment shall immediately inform the authority which granted the permit thereof and according to subsection 4 of the same paragraph shall remove the genetically modified animals from the environment and remedy the environmental damage caused by the release of such animals into the environment. According to the Animal Protection Act § 57 subsections 3 and 5, the authority which granted the permit is also required to guarantee the application of all necessary measures and remedy the consequences; the person who remedies the environmental damage has the right to require the compensation of reasonable costs incurred from the person conducting the animal experiment. The authority which grants the permits shall organise, according to subsection 6 of the same paragraph, at the cost of the person who caused the damage, an assessment of the effectiveness of remedying the environmental damage.
- 48 For more about liability of the producer see part I section 3b.

II. General Liability or other Compensation Schemes

1. Introduction

- 49 As liability concerning GMOs does not principally differ from the general liability system see part I section 1 for an answer.

2. Causation

- 50 See part I section 2.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed? Does it make any difference if there are clearly established statutory rules defining the required conduct for GMO agriculture?

51 See part I section 3a.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

52 See part I section 3b.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

53 According to the Law of Property Act § 89 an owner has the right to demand the elimination of any violation of his right of ownership even if the violation is not related to a loss of possession. If there is reason to presume the recurrence of such a violation, the owner may demand the avoidance of the violation. A demand is precluded if the owner is required to endure the violation. More exact is § 143 subsection 1 of the Law of Property Act, according to which the owner of an immovable does not have the right to prohibit the spread of gas, smoke, steam, odour, soot, heat, noise, vibrations and other such nuisances coming from another immovable to the owner's immovable unless this significantly damages the use of the owner's immovable or is contrary to environmental protection requirements. The intentional direction of nuisances to a neighbouring immovable is prohibited. If such a nuisance mentioned before significantly damages the use of an immovable but the person causing the nuisance cannot be expected to eliminate the nuisance for economic reasons, the owner of the nuisanced immovable according to subsection 2 of the same paragraph has the right to demand compensation from the owner of the immovable causing the nuisance. The Supreme Court of Estonia has found that the purpose and goal of § 143 subsection 1 of the Law of Property Act in the first place is to regulate the obligation to endure on one's own immovable nuisances stemming from a neighbouring immovable and the directing of these nuisances to an adjoining immovable (see Supreme Court ruling from Dec. 13, 2004 on the civil matter No. 3-2-1-141-04 and ruling from April 11, 2005 on the civil matter No. 3-2-1-33-05).

4. Damage and remedies

- 54 See part I section 4.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 55 There are no special regulations concerning the costs of testing and sampling of GMOs. According to the Food Act § 49 subsection 1, a supervisory official has the right, pursuant to the established procedure and at the expense of a food business operator, to take the amount of samples necessary in order to carry out laboratory analyses. If, according to the results of laboratory analyses, the food, raw material for food or anything else that was subject to analyses does not conform to the requirements, the costs of the analyses carried out and of the analyses of control samples taken from the same lot for further tests shall be covered according to subsection 5 of the same paragraph by the food business operator. According to the Environmental Supervision Act § 20 subsection 1 the minimum quantity of samples of materials and substances necessary to ascertain the facts shall be collected free of charge, i.e. at the expense of the one being controlled. See part I section 2a about the costs of civil proceedings.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 56 No such regulations are known.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 57 The Food Act § 49 subsection 5 is the special regulation according to which the cost of the analyses of control samples can be left to be paid by the one being controlled. (see part III section 1).

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 58 There are no special regulations of jurisdiction and conflict of laws concerning civil liability for GMOs (see also part IV section 2).
- 59 According to § 50 subsection 1 of the Private International Law Act¹¹ (PILA), claims arising from unlawfully caused damage shall be governed by the law of the state where the act or event which forms the basis of the cause of the damage was performed or occurred. According to subsection 2 of the same paragraph if the consequences do not become evident in the state where the act or event which formed the basis for causing the damage was performed or occurred, the law of the state where the consequences of the act or event became evident shall be applied at the request of the injured party. A special provision is PILA § 52 according to which if a claim arising from the unlawful causation of damage is governed by foreign law, compensation ordered in Estonia shall not be significantly greater than the compensation prescribed for similar damage by Estonian law. According to PILA § 53 subsection 1 if a non-contractual obligation has a closer connection with the law of a state other than that which would be applicable pursuant to the provisions of PILA, the law of such other state applies. According to PILA § 54 the parties may agree on the application of Estonian law after the occurrence of the event or the performance of the act from which a non-contractual obligation arose.
- 60 Jurisdiction of the case in the European Union is determined under the rules of the EC regulation 44/2001. The Code of Civil Procedure (§ 79 subs. 1) provides that an action shall be filed with the court of the residence of the defendant who is a natural person or with the court of the seat of the defendant who is a legal person. An action arising from the activities of an economic unit of a company (enterprise) may also be filed with the court of the location of the economic unit (§ 84 Code of Civil Procedure). A plaintiff may file an action for compensation for damage caused in the form of bodily injury, some other health disorder or the death of a provider with the court of the plaintiff's residence or the court of the place where the damage was caused (§ 94 Code of Civil Procedure).

¹¹ Private International Law Act (rahvusvahelise eraõiguse seadus). Passed 27 March 2002. RT I 2002, No. 35, art. 217.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 61 According to § 50 subsection 1 of the Private International Law Act (PILA) claims arising from the unlawful causing of damage shall be governed by the law of the state where the act or event which forms the basis for the damage was performed or occurred. According to subsection 2 of the same paragraph if the consequences do not become evident in the state where the act or event which formed the basis for the damage was performed or occurred, the law of the state where the consequences of the act or event became evident shall be applied at the request of the injured party. A special provision is PILA § 52, according to which, if a claim arising from the unlawful causing of damage is governed by foreign law, the compensation ordered in Estonia shall not be significantly greater than the compensation prescribed for similar damage by Estonian law. According to PILA § 53 subsection 1, if a non-contractual obligation has a closer connection with the law of a state other than that which would be applicable pursuant to the provisions of PILA, the law of such other state applies. According to PILA § 54 the parties may agree on the application of Estonian law after the occurrence of the event or performance of the act from which a non-contractual obligation arose. See also part IV section 1.

7. FINLAND

Björn Sandvik

I. Special Liability or Compensation Regimes

1. Introduction

- 1 In Finland, a special regime for damage caused by GMOs was established in 1995 by the passing of the Gene Technology Act (377/1995). The Act has subsequently been amended significantly, most recently by Law 847/2004 implementing the EC Directive of 12 March 2001 on deliberate release into the environment of GMOs. (Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001.) The aim of the Gene Technology Act (hereinafter the GTA) is to promote the safe use and development of gene technology in accordance with the precautionary principle and in a way that is ethically acceptable, and to protect human and animal health and the environment when carrying out the contained use or deliberate release into the environment of GMOs (Sec. 1). A liability provision is found in GTA Sec. 36, which reads as follows:

„Liability for damage. Compensation for damage in the environment caused by activities referred to in this Act is subject to the provisions of the Environmental Damage Compensation Act (737/1994).

Compensation for personal injury or for damage to property intended for private use or consumption and used by the injured party mainly for such purpose are subject to the provisions of the Product Liability Act (694/1990).

Compensation for damage caused by activities referred to in this Act is subject to the provisions of the Tort Liability Act (412/1974). The operator is liable to compensate for such damage even if it was not caused wilfully or through negligence.

The provisions of para. 1-3 shall not restrict the right of the injured party to compensation on the basis of an agreement or by virtue of other statutes than those referred to in para. 1-3.”

- 2 The wording of Sec. 36 and the precise relations between the statutes referred to in it, are perhaps not crystal clear. According to the bill to the GTA, however, Sec. 36(1) will lead to the application of the Environmental Damage

Compensation Act (hereinafter the EDCA) in two situations¹: First, the EDCA is applicable to damage caused by so-called contained use of GMOs. „Contained use” is defined in Sec. 3 of the GTA as „any activity in which organisms are genetically modified or in which such organisms are cultured, stored, transported, destroyed or disposed of or used in any other way, and for which specific containment measures are used to limit their contact with the general population and the environment and to provide a high level of safety for the general population and the environment”. Second, the EDCA is applicable to deliberate release of GMOs into the environment. „Deliberate release” is defined in Sec. 3 of the GTA as „introduction into the environment of genetically modified organisms without using any specific containment measures to limit their contact with the general population and the environment or to provide a high level of safety for the general population and the environment”.

- 3 It is to be observed that the definition of deliberate release is not restricted to release of GMOs into the environment for research and development purposes only (e.g. experimental field testing), but is wide enough to cover also release of GMOs into the environment, for example, for the purpose of commercial cultivation of GM crops.² Hence, the EDCA will apply to damage in the environment caused by GMOs irrespective of whether such damage is caused by contained use of GMOs, (e.g. laboratory tests), by deliberate release of GMOs into the environment for research or development purposes (e.g. experimental field testing), or by deliberate release of GMOs into the environment for commercial purposes (e.g. commercial cultivation of GM crops). Prior to the amendment of the GTA by Law 847/2004 implementing Directive 2001/18/EC, however, the definition of deliberate release explicitly covered such release of GMOs into the environment for research and development purposes only.
- 4 It should be further noted in this context that the EDCA likely could apply to damage caused by GMOs irrespective of Sec. 36(1) of the GTA. According to Sec. 1 of the EDCA, compensation for damage caused in the environment by an activity in a specific area shall be payable. The damage should be caused by „pollution of water, air or land, or noise, vibration, radiation, light, heating or smell, or other comparable disturbance”. In the literature, it is recognised that GMOs could be considered „comparable disturbance” under Sec. 1 of the EDCA³. This interpretation is further supported by, for example, an explicit statement in the legislative history to a corresponding provision in the Swedish legislation on compensation for environmental damage⁴. The Swedish legislation (the Environmental Damage Compensation Act of 1986 which with-

1 See Government Bill 1994:349 at pp. 36-37.

2 Cf. also Art. 2(3) of Directive 2001/18/EC.

3 See, e.g., *Björn Sandvik*, Miljöskadeansvar [Environmental Impairment Liability] (2002) 157-160 with further references.

4 See SOU 1996:103, part 1 s. 629; cf. also, e.g. SOU 1993:27, ch. 12 and at pp. 699-700.

out material changes has subsequently been transformed into Ch. 32 of the Swedish Environmental Code of 1998) served as an important model for the drafters of the Finnish EDCA. And damage suffered by, for example, farmers of non-GM crops as a result of commercial cultivation of GM crops is clearly caused both „in the environment” and „by activity in a specific area” in the meaning of Sec. 1 of the EDCA. Thus, Sec. 36(1) of the GTA is perhaps more of an informative than of a normative nature.

- 5 Moreover, an umbrella law on the coexistence of GM and non-GM cultivation is under preparation in the Ministry of Agriculture and Forestry (MAF). A working group report was published in 2005.⁵ A bill has not yet been presented. In the report, the working group proposes also a liability regime.⁶ In so proposing, however, the working group for some reason fails to take due account of the liability regime already established under Sec. 36 of the GTA.⁷
- 6 In short, the report recognizes that GMO admixture to a proportion exceeding statutory thresholds may launch labelling requirements or impose restrictions for the intended use of the crops. According to the proposal, compensation would be payable for economic losses suffered by farmers of non-GM crops due to such requirements or restrictions, with the exception for minor loss. Claims regarding any other kind of damage or loss (including pure economic loss due to changed consumer preferences or loss of commercial reputation, for example) would be decided under the Tort Liability Act (leading to a weaker protection than under Sec. 36 of the GTA; see *infra*). Compensation would be payable irrespective of fault through a compensation fund. Contributions to the fund would be made by the state and by farmers of GM crops according to their hectares. However, if a farmer has caused damage by breaching statutory requirements on GM cultivation, the farmer himself (not the fund) would be liable to compensate for the damage on the basis of fault. Further, the claimant would have to prove that the damage was „probably caused” by the cultivation of a GM crop, that is, full proof of causality would not be required. Finally, some traditional tort solutions such as joint and several liability as well as recourse between several liable persons are also proposed.
- 7 As will be demonstrated in greater detail below in the present country report, the existing Sec. 36 of the GTA will – except for the proposed compensation
 - 5 Työryhmämuistio MMM 2005:16. Muuntogeenisten viljelykasvien sekä tavanomaisen ja luonnonmukaisen maataloustuotannon rinnakkaiselon mahdollistaminen Suomessa. Loppuraportti. [Working Group Report MAF 2005:16. Enabling the Coexistence of Genetically Modified Crops, Traditional and Organic Agricultural Production in Finland. Final Report.]
 - 6 See *id.* at pp. 38-40. All details are still open, and the report does not include any draft provisions.
 - 7 In the working group report, the liability regime already existing under Sec. 36 of the GTA is not mentioned at all.

fund – lead to at least the same or in several regards to an even better protection than the regime proposed by the MAF working group. See I.3 and II.3 below regarding the basis of liability, I.2 and II.2 below regarding causality, multiple causes, joint and several liability, and recourse between several liable persons, and I.4 and II.4 below regarding compensable damage.

- 8 The proposed liability regime seems ill founded. It seems that the working group was not fully aware of the liability already established under Sec. 36 of the GTA. It is advisable that any further legislation measures should merely aim at perhaps (clarifying and) complementing the existing liability regime with the proposed compensation fund. Among other things, payments from the fund should be possible also in instances where a farmer of GM crops has caused damage by breaching statutory requirements on GM cultivation. The state should, in respect of compensation paid by the fund, acquire by subrogation the rights that the person so compensated have against the person liable for the damage. Any amount of compensation received by the state from the liable person should be reimbursed to the fund. (Cf. also, e.g. Sec. 7 of the Act on the Oil Pollution Compensation Fund (379/1974).) Finally, in considering the need of a compensation fund regard should be paid also to the possibilities of developing the obligation to obtain liability insurance; see further I.4(f) below.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 9 In addition to showing proof of the damage suffered, the claimant must show that there exists a causal link between the alleged activity and the damage. In environmental cases in particular, however, it is often difficult for the claimant to prove such a causal link. For example, the sources of pollution or other disturbance (such as GMOs) may be multiple and the damage may be spread over both space and time. Consequently, it may require complex, time consuming and often expensive technical, chemical, biological, medical or other kind of investigations to determine the causal link. An award of damages can likely include also costs of such (necessary and reasonable) investigations as „other costs” due to the damage (see also I.4(d) below). To the extent that the costs are regarded as law expenses they are allocated in accordance with the rules in Ch. 21 of the Code of Judicial Procedure. In civil cases where settlements are allowed, the losing party generally bears the law expenses.
- 10 Further, it may be noted already in this context that in Finland, the right to damages is restricted by the so-called doctrine of adequate causation (cf. „remoteness of damage”) as an ultimate limit. This doctrine on unforeseeable,

unexpected, far-reaching etc. consequences applies in respect of both the relation between the cause and the (physical) damage, and in the latter relation between the damage and the loss sustained. Some problems involving adequacy are discussed further below in this report (see I.4(b)-(c)).

(b) How is the burden of proof distributed?

- 11 The drafters of the EDCA recognised that a lot of the practical significance of the liability rules for environmental damage could be lost if considerable demands were placed on a claimant in terms of proving the burden of the causal link. Consequently, the EDCA contains, in Sec. 3, a special rule that the claimant seeking compensation has to prove that there exists „a probability” of a causal link between the alleged activity and the damage. Thus, full proof of causality is not required under the EDCA. In judging the probability, account shall be taken of, among other aspects, the nature of the activity and the damage, and other possible causes of damage. But it should be also noted that, according to the bill to the Act, „probability” means a rather high probability; in mathematical terms „clearly over 50 per cent”⁸. It has been called into question whether the rule in the EDCA really improves the claimant’s position in relation to the result achievable already under the principle of free judgement of proof. Referring to Sec. 59 of the Norwegian Pollution Act, it has been asked whether the EDCA should have been more progressive in protecting the interests of the claimant by a rule reversing the burden of proof.⁹ The Norwegian rule concerns situations where it has emerged that pollution which could have caused the damage has occurred but it is unclear whether the damage may have some other cause(s).

(c) How are problems of multiple causes handled by the regime?

- 12 The EDCA has, in Sec. 2(5), a supplementary reference to the Tort Liability Act (hereinafter the TLA). Ch. 6, Sec. 1 of the TLA provides, among other things, that compensation may be reduced („adjusted”) as is found reasonable if a circumstance other than the fault of the person liable contributed to the injury or damage. By virtue of Sec. 2(5) of the EDCA this causality rule is applicable also under the EDCA. But since the EDCA imposes a no-fault liability upon the operator of the activity causing damage (see below in I.3(b)), the expression „other circumstance than the fault of the person liable” should be

⁸ Government Bill 1992:165 at p. 23.

⁹ See, e.g. *Peter Wetterstein*, The Finnish Environmental Damage Compensation Act – and Some Comparisons with Norwegian and Swedish Law, 1995 Environmental Liability (Vol 3, Issue 3) 41-48, at 45.

interpreted as „other circumstances unconnected with the activity of the operator”.¹⁰

- 13 Sec. 8 of the EDCA provides a rule for joint and several liability and recourse (cf. also the rather similar rules in Ch. 6, Sec. 2-3 of the TLA). Persons liable for compensation shall be jointly and severally liable for environmental damage probably caused by them (Sec. 8(1)). Unless otherwise agreed, the joint and several liability for compensation shall be divided equitably, giving due consideration to the grounds for the liability, the chances of preventing the damage and other prevailing circumstances (Sec. 8(2)). If one (or several) of the persons thus liable has paid compensation over and above his own share, that person has the right to receive from each of the other liable persons what he has paid for their part, of course. According to Sec. 8(3), however, liability for compensation shall not be imposed by judgement, in a degree exceeding the appropriate share, on a person whose share in inflicting the damage is minor (Sec. 8(3)).

3. Type of regime

(a) *If fault-based, which are the parameters for determining fault, and how is the burden of proof being distributed?*

(b) *If strict, is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, contributory negligence etc.)?*

- 14 The basis of liability in the EDCA is a rule of strict (no-fault) liability. According to Sec. 7(1) subpara. 1 of the EDCA, the liability is channelled to the operator, that is, the person whose activity has caused the environmental damage. Further, according to Sec. 7(1) subpara. 2, also a person who is comparable to the operator can be held liable under the Act, taking into consideration control, financial aspects etc. For example, a parent company may be held liable for activities of its subsidiary¹¹. Moreover, under Sec. 7(1) subpara. 3 the transferee of an activity can be held liable if he knew or should have known about the damage or the disturbance or the risk of it at the time of the transfer.
- 15 In the Supreme Court decision 1999:124, an independent contractor had undertaken to sandblast the frontage of a hospital building which was owned by an association of municipalities. The contractor – and not the association – was held to be the operator liable under the EDCA for damage caused by dust.

¹⁰ See further *Björn Sandvik*, Hur strikt är det strikta skadeståndsansvaret enligt lagen om ersättning för miljöskador? [How Strict Is the Strict Liability Under the Environmental Damage Compensation Act?], 1998 Tidskrift utgiven av Juridiska Föreningen i Finland pp. 544-570, at 563-569.

¹¹ Government Bill 192:165 at p. 27.

In the Supreme Court decision 2001:61, however, a municipality was held to be the operator liable for cracks in a building caused by vibrations from road works executed by an independent contractor. According to Sec. 1(2) of the EDCA, the keeper of roads and other traffic areas shall also be considered to be carrying out activities in a specific area as required by Sec 1(1). It seems that in the latter case, Sec. 1(2) influenced also the interpretation of the term „operator” under Sec. 7. Nevertheless, it is rather clear that, for example, a farmer of GM crops causing damage in the environment would be held liable for the damage as the operator under the EDCA.

- 16 In Sec. 7 of the EDCA, no „traditional” defences to strict liability are provided for. However, it has been held that a force majeure defence should be available, since in Finnish law, it can be regarded a general principle that a force majeure event has the effect of an exclusion of strict liability. But the notion of force majeure should be given a narrow interpretation.¹² For instance, natural disasters and acts of terror could amount to force majeure under the Act. Also the bill to the EDCA supports the view that the strict liability rule under Sec. 7 is not absolute. According to the bill, if a third party has trespassed upon the area in which the activity is performed and caused an accident by mischief, the resulting damage is not caused by the operator’s activity provided that the operator has not contributed to the damage¹³. However, also this example should be interpreted narrowly.¹⁴
- 17 An obligation to tolerate disturbance is laid down in Sec. 4 of the EDCA. According to Sec. 4(1), compensation for environmental damage is payable under the Act only if it is not reasonable to tolerate the disturbance taking into account, among other things, the local circumstances, the situation as a whole that led to the disturbance and how common the disturbance in question is in comparable circumstances. In the Supreme Court decision 2004:89, an owner of a real estate bought in 1995 was held to be under an obligation to tolerate disturbance in the form of dust from an open-cast mine which had been operative in the vicinity since 1968. Vibrations from road works causing cracks in a building were not held to be a tolerable disturbance in the Supreme Court decision 2001:61. According to Sec. 4(2) of the EDCA, the obligation to tolerate disturbance is not applicable to personal injury or property damage that is not minor, neither does it affect damage caused by criminal or intentional behaviour. In the Supreme Court decision 1999:124, the obligation to tolerate disturbance was not even addressed when awarding FIM 2,600 (= € 437) in damages for property damage. Some scholars have advocated that the obligation to tolerate disturbance should not apply if the damage is caused by negligence.¹⁵ But it is unclear whether a court would accept such an interpreta-

¹² See, e.g. *Sandvik* (supra fn. 10) at 544-570.

¹³ See Government Bill 1992:165 at p. 27.

¹⁴ But note in this context also the rule in Ch. 6, Sec. 1 of the TLA; see 7.I.2(c) above.

¹⁵ See, e.g., *Wetterstein* (supra fn. 9) 43.

tion.¹⁶ It should also be noted in the present context that the tolerance level is not directly linked to consents by authorities. But in deciding whether a disturbance should be tolerated or not, regard shall be paid to the content of different environmental consents (nuisance thresholds, measures of health safeguard etc) as one factor among others¹⁷.

- 18 As mentioned previously (in I.2(c)), the EDCA has in Sec. 2(5) a supplementary reference to the TLA. By virtue of Sec. 2(5) of the EDCA also the TLA rule on contributory negligence is applicable in environmental damage cases. According to Ch. 6, Sec. 1 of the TLA, if there has been a contribution to the injury or damage from the person sustaining it, the damages may be reduced („adjusted”) as is found reasonable. Naturally, the claimant seeking damages is also under a duty to take such measures as are reasonable in the circumstances to mitigate his loss. If he fails to take such measures, the party liable for the damage may claim a reduction in damages in the amount by which the loss should have been mitigated. Some scholars maintain that failure to mitigate loss constitutes contributory negligence under Ch. 6, Sec. 1 of the TLA, while others maintain that the duty to mitigate loss is a duty under general principles of tort law (and of contractual liability).

(c) If it is no liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 19 Different criteria do not apply with regard to, on the one hand, crop production and, on the other hand, seed production.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 20 As noted, the EDCA has, in Sec. 2(5), a supplementary reference to the TLA. Thus, the EDCA regulates only some issues of environmental damage liability, while others are left to be decided under the general rules of tort liability laid down in the TLA.

- 21 However, if the EDCA is applicable to a certain damage event but for some reason damages are not awarded under the EDCA, some commentators hold that compensation for that damage can not be awarded under the TLA.¹⁸ Some

¹⁶ See also *Erkki J. Hollo/Pekka Vihervuori*, *Ympäristövahinkolaki* [The Environmental Damage Compensation Act] (1995) at 132, who apparently do not accept such an interpretation.

¹⁷ See Government Bill 1992:165 at p. 15.

¹⁸ See, e.g., *Hollo/Vihervuori* (supra fn. 16) 132.

support for this interpretation can be read into the statutory language of Sec. 2(5) of the EDCA. But some scholarly opinions hold such an interpretation incorrect, since in certain respects (which were not even addressed by the drafters of the EDCA), it would weaken the claimant's position compared to the situation prior to the EDCA. The objective purpose of the EDCA was to strengthen – not to weaken – the position of the claimant seeking damages.¹⁹ But it should be emphasised that the practical relevance of the TLA will be extremely limited in any way, since the EDCA offers a far better protection to damage victims than the TLA in virtually all respects. Yet, the right to claim damages under the TLA could become of some (albeit limited) importance in situations where, for instance, damages are not awarded under the EDCA on the ground that the disturbance is deemed tolerable under Sec. 4 of the EDCA.²⁰

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

- 22 According to Sec. 5(1) of the EDCA, compensation for personal injury and property damage (including consequential economic losses) is payable pursuant to Ch. 5 of the TLA. Thus, in this respect the EDCA has not introduced any changes. However, Sec. (5) of the EDCA further provides that compensation shall also be payable for economic losses unconnected with personal injury or property damage, that is, pure economic losses. Such losses shall be compensated with the exception of minor losses. According to the bill to the EDCA, citizens should not be encouraged to pursue claims for minor losses²¹. But it will remain for the courts to decide what counts as „minor” loss. However, under Sec. 5(1) the exception for minor loss does not apply if the loss is caused by criminal behaviour.
- 23 According to Ch 5, Sec. 1 of the TLA, compensation for pure economic loss is payable only where the loss is caused (1) by a criminal act, (2) by a public body in the exercise of its authority, or (3) in other cases, where there are especially weighty reasons for compensating such loss. Thus, Sec. 5(1) of the EDCA has essentially enhanced the claimant's position regarding compensation for pure economic loss.
- 24 Although of lesser importance with regard to the object of the present study, it may be mentioned that Sec. 5(2) of the EDCA further provides that other damage than damage referred to in Sec. 5(1) shall be compensated to a reasonable amount in view of the time the disturbance or damage lasts and the possibilities of the injured party to avoid or to prevent the damage. This provi-

¹⁹ See, e.g., *Sandvik* (supra fn. 3) 201-202.

²⁰ See 7.1.3(b) above on the obligation to tolerate disturbance.

²¹ Government Bill 1992:165 at p.25.

sion allows compensation for non-economic loss, for instance, for noise or smell which has already ceased when the claim is pursued and which has not lead to any costs or other measurable economic losses²².

- 25 Moreover, according to Sec. 6(2) of the EDCA, authorities have the right to claim reasonable costs from the persons(s) liable for measures undertaken to avert or restore damage to the environment. Whereas tort law traditionally has been concerned with only individual interests, this provision concerns damage to the environment per se and public (collective) environmental interests.²³ Further, under Sec. 6(1) also a private person can claim costs of necessary measures undertaken to avert the risk of environmental damage which „concerns that person” and to restore the environment. However, this provision concerns individual environmental interests only and it has been held that the rule could have been the same even under Sec. 5(1) of the EDCA²⁴.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 26 As previously noted (I.4(a)), compensation is payable also for pure economic loss under Sec. 5(1) of the EDCA. However, it should be noted in this context also that it is held that the EDCA – to be applicable according to Sec. 1 (see 7.I.1 above) – requires that the environment has been physically affected²⁵. Thus, it is held that so-called psychological disturbance in the form of, for instance, the anxiety that people living near chemical industries may have due to the potential risk of a chemical release can not be regarded as a „comparable disturbance” under the EDCA. Extending liability under the EDCA to psychological disturbances as such could lead to unexpected and undesirable consequences.²⁶ On the other hand, if, in the example above, a release of chemical substances actually has occurred and the environment is affected physically then the EDCA is applicable to damage caused by the fear that the disturbance (i.e. the release of chemical substances) may spread²⁷.

22 Government Bill 1992:165 at p. 26.

23 Sec. 6(2) of the EDCA has been dealt with in great detail by *Sandvik* (supra fn. 3) 298-407, 414-419.

24 See *Sandvik* (supra fn. 3) 292-298.

25 See *Sandvik* (supra fn. 3) 162-168 with further references.

26 However, it may be noted in this context that the civil liability rules on compensation for environmental damage in, for example, Ch. 32 of the Swedish Environmental Code are held to cover also damage caused by psychological disturbances as such; see e.g. Swedish Government Bill 1985/86 at p. 48.

27 See also *Sandvik* (supra fn. 3) 162-168, in particular at 167.

- 27 Now, turning to the scenario in the present study, if a farmer of non-GM crops suffers loss (e.g. loss of profit) as a consequence of his customers fearing that his products are no longer GMO free because of, for example, the presence of GMO cultivation in the vicinity, that farmer has suffered pure economic loss. But if no actual GMO admixture has occurred in the environment, the EDCA will likely not be applicable. The mere fear of GMO admixture is probably not a disturbance within the meaning of Sec. 1 of the EDCA. It would also be extremely difficult to interpret Sec. 36(1) of the GTA (see above 7.I.1) as extending the applicability of the EDCA to such instances. Moreover, in most cases the farmer's loss could likely not be compensated for either under the TLA (even if Sec. 36(3) of the GTA provides a rule of strict liability for damage caused by GMOs also if the TLA is applicable; see 7.I.1 above). As seen above (7.I.4(a)), the prerequisites for compensating pure economic loss under Ch. 5, Sec. 1 of the TLA are rather restricted. But if an admixture of GMOs actually has occurred in the environment (in the vicinity), the EDCA is applicable and, in principle, compensation is payable under Sec. 5(1) of the Act for the pure economic loss suffered by the farmer of non-GM crops as a result of his customers fearing that his products are no longer GMO free. Further, if a farmer of non-GM crops suffers damage as a result of his own cultivation having been exposed to GMO admixture from cultivation of GMO crops in the vicinity, compensations for that farmer's damage is, of course, payable under the head of property damage (irrespective of whether the farmer owns or leases the land). The notion of property damage includes so-called consequential economic loss, that is, economic loss (e.g. loss of profit) as a result of the claimant's property (or proprietary interests) having been damaged.
- 28 Accepting the right to compensation for pure economic losses also poses the extremely difficult question of how far the right extends. For example, although only one farmer's crops have actually been contaminated with GMOs from cultivation of GM crops in the vicinity, farmers in a whole region can suffer pure economic losses where consumers fear that the entire region is affected. Further, such stigmatisation may hit also economic interest far beyond the farmers and possibly even impact the whole food sector in the region (food producers, food retailers etc.), perhaps even the food sector outside the region in question. Needless to say, a non-restrictive attitude could cause large, complicated and unforeseeable compensation issues. In many cases – if the fear has been blown up out of all proportion by media, in particular – the link of causation between the disturbance and the damage may even be too uncertain and indirect to justify an award of damages at all under the EDCA.
- 29 Moreover, in Finnish tort law, the doctrine of adequate causation (see also above 7.I.2(a)) provides the ultimate line between those claims for economic (and other) losses which should be paid and those which should be dismissed as too remote and unforeseeable etc. There is no statutory rule on adequacy. Consequently, it is a highly elastic doctrine full of nuances, which is therefore also difficult to apply. With a certain exaggeration it is even held that most

scholarly opinions on adequacy are acceptable, since by necessity they are vague enough to either allow or dismiss a claim in a concrete case²⁸.

- 30 However, from a comparative point of view it is interesting to note that Ch. 10 of the Finnish Maritime Code of 1994 contains provisions on oil pollution liability. These provisions are mainly based on international treaties; the CLC (Convention on Civil Liability for Oil pollution Damage, 1969, as amended by subsequent Protocols) and the FC (International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, as amended by subsequent Protocols). The definition of oil pollution damage covers also pure economic losses from impairment of the environment. Such losses may hit, for example, commercial fishermen, fish retailers, hoteliers, restaurateurs, shopkeepers, travel agencies etc. who obtain their income from tourism at or to seaside resorts. The International Oil Pollution Compensation Fund (the IOPC Fund) has developed and adopted criteria concerning the admissibility of claims for pure economic loss. These criteria require a „reasonable degree of proximity” and focus on elements such as the following:
- (1) Geographic proximity between the claimant’s activity and the contamination of the environment (e.g. in respect of hoteliers or travel agencies who are not located in the nearest vicinity, but who nevertheless suffer loss of income because tourists shy away from the region as whole).
 - (2) The degree to which a claimant is economically dependent upon an affected resource.
 - (3) The degree to which a claimant’s business forms an integral part of the economic activity affected.
 - (4) The extent to which a claimant has alternative sources of supply.²⁹
- 31 It is stressed that each claim should be considered on its own merits, and that „the IOPC Fund should maintain a certain flexibility enabling it to take into account new situations and new types of claims”.³⁰
- 32 It would perhaps be tempting to apply similar criteria also under the EDCA (and Ch. 10 of the Maritime Code). However, the criteria adopted by the IOPC Fund have been criticised. Above all, the Fund’s criteria may lead to a very extensive liability which is difficult to foresee and therefore also very

28 See *Hans Saxén*, *Adekvans och skada* [Adequacy and Damage] (1962) 12.

29 See, e.g., IOPC Fund, FUND/WGR.7/21, 20 June 1994, especially at p. 8 para. 7.2.30.

30 See *id.*, 8 para. 7.2.32. See also further on the criteria, e.g. IOPC Fund 1992, Claims Manual, April 2005 Edition, Adopted by the Assembly in October 2004, especially at 25-30.

difficult to administrate. In some respects the IOPC Fund's criteria may lead to arbitrary results. In Finnish law, the starting point is that only those who directly suffer loss have a right to compensation. However, it is in the nature of things that the concept of those who „directly suffer loss” is not entirely clear. Therefore, it has been suggested that, as a rule, claimants with only a contractual relationship to those primarily suffering loss or damage as a result of environmental impairment should not have right to recover pure economic losses.³¹ In this connection it should be stressed also that tort action is a very expensive and quite often time consuming instrument for compensating damage victims. And, as rightly pointed out, „those having indirectly suffered economic losses may find it easier to arrange for cheaper, alternative compensation, for instance first party insurance”³².

- 33 Personally, I am inclined to support such views³³. In principle, this would mean that farmers of non-GM crops have the right to recover pure economic losses caused by GMO contamination in the environment, while claims for pure economic losses pursued by claimants with only a contractual relation with those farmers should be dismissed. Still, difficult problems of adequacy will remain as regards the position of those farmers who are not in the nearest vicinity of the GMO contamination, but who nevertheless suffer pure economic losses because consumers fear that the entire region may be affected (provided the causal link is established at all in the first place; cf. above). Obviously, liability has to stop at some point. In deciding where that point should be, each claim must be considered on its own merits. It is to be observed also in this context that the further away the claimant/farmer is (geographically as well as in terms of economic dependence) from the GMO contamination, the more difficult it may be for him to prove (even with probability; see I.2(b)) the link of causation, and to prove the alleged economic loss. Thus, to a certain degree the rules on the claimant's burden of proof reduce the need for precise parameters concerning the admissibility of claims³⁴.

(d) Which are the criteria for determining the amount of compensation?

- 34 According to Ch. 5, Sec. 5 of the TLA, compensation for property damage shall cover reasonable costs of repair of the damaged object, other costs arising from the damage, reduction in value of the property, as well as loss of income and maintenance, that is, consequential economic loss. If repair is not feasible or reasonable, damages shall cover reduction in value, other costs arising from the damage, as well as consequential economic loss.

31 See *Peter Wetterstein*, A Proprietary or Possessory Interest: A *Conditio Sine Qua Non* for Claiming Damages for Environmental Impairment, in *Wetterstein* (ed): *Harm to The Environment* (1997) 29-54, at 40-41.

32 *Id.*, 41.

33 Cf. also *Sandvik* (supra fn. 3) 255-262.

34 See also *Wetterstein* (supra fn. 31) 43.

- 35 Reduction in value is, in principle, determined by comparing the value of the damaged object before the damage occurred with its value after the damage has occurred. There are no standards laid down in legislation on precisely how the reduction in value shall be calculated. Where appropriate, the calculation may start from private contractual agreements, of course.
- 36 Further, since compensation is payable for also the „other costs” arising from the damage, indirect costs such as increased overhead costs due to the need to find a new market for products, or to regain a certain procedure, are recoverable provided the costs are reasonable and necessary.
- 37 In commercial matters, loss of income (whether consequential or pure economic loss) usually is calculated on the basis of lost production or turnover. Obviously, in this respect, too, private contractual agreements may be of relevance.

(e) Is there a financial limit to liability?

- 38 There is no financial limit to liability under the EDCA.³⁵ In this context, however, it is to be observed also that Ch. 2, Sec. 1 of the TLA provides a rule according to which the damages may be reduced („adjusted”) if the liability is deemed unreasonably onerous in view of the financial status of the person causing injury or damage and the person suffering the same, and other circumstances. However, if the injury or damage has been caused deliberately, full compensation shall be awarded unless it is deemed that there are special reasons for a reduction in the damages. This rule is applicable also under the EDCA by virtue of Sec. 2(5) of the Act.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 39 The EDCA does not deal with insurance questions. However, the Environmental Damage Insurance Act (81/1998) provides rules on compulsory environmental damage insurance.
- 40 According to Sec. 1 of the Environmental Damage Insurance Act (hereinafter the EDIA), compensation shall be paid under this Act for environmental damage as referred to in the EDCA, caused in Finland by activities in Finland, and for costs arising from the prevention of such damage and from restoring the environment so damaged, provided that: (1) it has not been possible to collect such compensation in full from the party liable to compensate for the damage under the EDCA (see I.3(b) on the liable party under the EDCA) and no com-

³⁵ As regards the Environmental Damage Insurance Act; see (f) below.

pensation can be collected under the party's liability insurance, if any; or (2) it has not been possible to identify the liable party.

- 41 Sec. 4 of the EDIA provides that an environmental damage insurance policy can be issued by insurance companies which are authorized to engage in insurance business falling under non-life insurance class 13 in Finland under the Insurance Contracts Act (543/1994) or the Act on Operations on Foreign Insurance Companies in Finland (398/1995). Further, no insurer engaging in insurance operations covered by the EDIA may refuse to issue environmental damage insurance.
- 42 The maximum compensation payable under the EDIA for one insurance event is 5 million euros, and compensation payable for two or more events reported during one insurance period (which equals one calendar year; Sec. 5(2)) shall not exceed a total of € 8,5 million (Sec. 15).
- 43 According to Sec. 2 of the EDIA, any private corporation whose operations involve a material risk of environmental damage or whose operations cause harm to the environment in general shall be covered by insurance against loss compensable under the EDIA. By virtue of Sec. 2 of the EDIA, further provisions on the obligation to insure have been issued by Decree 717/1998. In Decree 717/1998, the obligation to insure under the EDIA has been linked to such private corporations whose activities require consent by specified authorities under various environmental statutes. According to Ch. 5 of the GTA, the operator shall apply for consent for the deliberate release of GMOs (and for the other activities referred to in the GTA) from the Board for Gene Technology, if the GMOs are intended to be released within the territory of the state of Finland. However, Decree 717/1998 does not refer to a consent by the Board of Gene Technology under Ch. 5 of the GTA. Thus, at present, it seems that deliberate release of GMOs into the environment (or any other activity referred to in the GTA) does not require compulsory insurance pursuant to Sec. 2 of the EDIA and Decree 717/1998, although such release of GMOs requires consent by an authority under the GTA. This may be considered a loophole in the present regime on compulsory environmental insurance.
- 44 It is advisable that the obligation to insure under the EDIA should be rewritten in a more consistent and comprehensive way. It may be noted in this context that the bill to the EDIA implies that – in the Decree to be issued by virtue of Sec. 2 – the obligation to insure shall be regulated on the basis of, on the one hand, a corporate's branch of business and, on the other hand, its turnover. In so doing the obligation to insure shall be linked to different branches of business on the basis of the classification of business branches made by the Na-

tional Centre of Statistics.³⁶ This is clearly not the regulatory technique in Decree 717/1998.

- 45 However, the establishment of a compensation fund could, of course, eliminate or at least minimize the shortcomings of the obligation to insure under the EDIA (see I.5 below).

(g) Which procedures apply to obtain redress?

- 46 Normal civil law procedures apply to obtain redress. Thus, the claim is handled in a civil court under the rules of the Code of Judicial Procedure. Decisions of the courts of first instance (the District Courts) may be appealed to one of the 6 Courts of Appeal, and decisions of the Court of Appeal may be further appealed to the Supreme Court provided that leave is granted by the Supreme Court. Leave may be granted, for example, if the case involves a new legal issue on which a precedent would be needed, or if the decision of a lower court was based on an error of fact or law.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 47 Injunctive relief is available under Sec. 22 of the GTA. If it is found after the submitting of a notification or an application in accordance with the GTA that a GMO can cause considerable harm to human or animal health or to the environment, the Board for Gene Technology may on its initiative or on the initiative of the supervisory authority³⁷ restrict the deliberate release of GMOs, or prohibit the operator to continue a procedure violating the provisions of the GTA or provisions issued in virtue of it.

5. Compensation funds

- 48 No compensation funds are set up. However, a compensation fund has been proposed; see I.1 above.

6. Comparison to other specific liability or compensation regimes

- 49 As seen above, liability is conditioned by the general rules on environmental damage liability laid down in the EDCA.

³⁶ See Government Bill 1997:82 at p. 11.

³⁷ The National Product Control Agency for Welfare and Health, the Finnish Environment Institute, or the Plant Production Inspection Centre depending on the matter; see Sec. 5 g-h.

II. General Liability or other Compensation Schemes

1. Introduction

- 50 Several of the questions under this part of the study have already been answered above by relating liability under the EDCA to liability under the general rules of torts laid down in the TLA. Therefore, and since the EDCA will apply, I will briefly comment only a few questions. In other respects I refer to the corresponding answers above in part I.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 51 See 7.I.2(a) above.

(b) How is the burden of proof distributed?

- 52 Under the TLA, the claimant seeking damages has the burden of proof. Full proof is required, but the principle of free judgement of proof applies; cf. 7.I.2(b) above.

(c) How are problems of multiple causes handled by the general regime?

- 53 See 7.I.2(c) above regarding Ch 6, Sec. 1 of the TLA. Ch. 6, Sec. 2-3 of the TLA also provides for rules on joint and several liability and recourse rather similar to Sec. 8 of the EDCA; see 7.I.2(c) above. The most notable difference is that the TLA lacks a provision corresponding to Sec. 8(3) of the EDCA.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

- 54 The basis of liability in the TLA is a rule of fault liability. Thus, a person who deliberately or negligently causes injury or damage to another shall be liable for damages (Ch. 2, Sec. 1(1)). As a rule, the claimant seeking damages has the burden of proof concerning the fault element also. But in some court cases

the burden of proof has been reversed so that the operator of the alleged offending activity is under an obligation to prove that the damage had not been caused because of fault on his side in order to be relieved from liability („exculpatory fault liability”). One example is offered by the Supreme Court decision 1989:7 concerning liability for damage caused by a sudden release of sulphur containing soot from a thermal power station. There are also numerous cases in which courts have found the tortfeasor strictly liable without direct statutory support³⁸. Unlike the situation in some jurisdictions, however, no general rule of strict liability for „dangerous activities” is established in Finnish case law (although several cases point in that direction).

- 55 However, it should be recalled in this context also that Sec. 36(3) of the GTA (cit. supra 7.I.1) provides a rule of strict liability also if a certain case is to be decided under the TLA (e.g. non-contractual product liability cases which do not fall under the Product Liability Act; see also Sec. 36(2) of the GTA).

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 56 Sec. 18 of the Act on Neighbour Relations of 1920 provides a rule on strict liability for certain nuisances referred to in Sec. 17 of the Act³⁹. However, although Secs 17-18 of the Act on Neighbour Relations are still in effect, the damages provision in Sec. 18 is to a large extent superseded by the EDCA. After the EDCA entered into force, the damages provision in Sec. 18 of the Act on Neighbour Relations is applicable to „in-door relations” only (e.g. between neighbours in a high-rise block).

4. Damage and remedies

- 57 See 7.I.4 above.

III. Sampling and Testing Costs

- 58 As previously indicated (see 7.I.4(f)), activities referred to in the GTA require consent by the Board for Gene Technology. The Board may include in the consent conditions related to the monitoring duty and risk management as are laid down in the GTA (see, e.g. Secs 11 and 18 as regards deliberate release of GMOs into the environment). Further, under Sec. 9 of the GTA, operators are

³⁸ See, e.g. Supreme Court decision 1995:108 concerning damage caused by leakage from an underground petrol tank. See also, e.g. the following Supreme Court decisions: 1957 II 10, 1963 II 93, 1982 II 70, 1982 II 94, 1993:114, 1994:122, and 2000:72 (explosions and blastings); 1969 II 42 and 1997:48 (fires); 1998:87 and 1998:88 (asbestos); 1990:55 and 1991:156 (defective machines); 1995:53 (massvaccination against polio).

³⁹ Sec. 17 corresponds to the enumeration of disturbances in Sec. 1 of the EDCA; see 7.I.1 above.

under a general duty to obtain any such information on the properties of genetically modified organisms and their effects on health and the environment as is reasonably accessible and adequate for fulfilling the obligations prescribed in the GTA and in any provisions laid down in virtue of it. It seems that the costs for the measures will be distributed accordingly.

IV. Cross-Border Issues

- 59 Jurisdiction will be allocated in accordance with the so-called Brussels Regime. This Regime consists of the following instruments:
- (1) The Brussels Convention (Convention of 27 September 1968 on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters).
 - (2) The Lugano Convention (Convention of 16 September 1988 on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters).
 - (3) The Brussels I Regulation (Council Regulation (EC) No 44/2001 of 22 December 2000 on Jurisdiction and the Recognition and Enforcement of Judgements in Civil and Commercial Matters).
- 60 The Brussels I Regulation is applicable where the defendant is domiciled in a member state of the EU, except for Denmark. The Brussels Convention is applicable where the defendant is domiciled in Denmark. The Lugano Convention is applicable when the defendant is domiciled in Iceland, Norway, or Switzerland.
- 61 The basic principle in matters relating to tort liability is that a person domiciled in a member state may, in another member state, be sued in the courts of the place where the harmful event occurred or may occur (see Sec. 2, Art. 5(3) of the Brussels I Regulation). If the event giving rise to damage occurs in one state and the damage in another state, the harmful event has been interpreted to occur in both states. Consequently, the claimant has the right to choose among the competent courts.⁴⁰
- 62 The Brussels Regime does not regulate the choice of law. In Finnish law, there are no generally applicable statutory provisions on the choice of law in cross-border cases involving tort liability. However, the principle of *lex loci delicti commissi* has been established. Further, it is widely held that the claimant has the right to choose between the law of the state in which the event giving rise to damage occurred and the law of the state in which the damage occurred (cf. also above regarding jurisdiction). Obviously then, the claimant will choose the law which is more favourable to him. These princi-

⁴⁰ See, e.g., *Handelskwekerij G.J. Bier B.V. v Mines de Potasse d'Alsace S.A.*, (1976) ECR 1735 regarding the Brussels Convention.

ples will, of course, apply also with regard to the EDCA⁴¹. It may be further noted also that such an application of the EDCA seems to be in line with, for example, Arts 3 and 7 of the Proposal for a Regulation of the European Parliament and the Council on the Law Applicable to Non-Contractual Obligations („Rome II”), COM(2003) 427 final.

41 Cf. also, e.g. *Hollo/Vihervuori* (supra fn. 16) 274.

8. FRANCE

Simon Taylor

I. Special Liability or Compensation Regimes

1. Introduction

- 1 A government bill which proposes to introduce a special compensation regime for producers of non-GM crops contaminated by GM organisms was approved by the French cabinet in February 2006 and debated by the French Senate in March. The bill as adopted by the Senate is now waiting to be discussed by the National Assembly¹. However, as at the day of writing in December 2006, it is unclear exactly when (and even if) the bill will be debated by the French National Assembly. It is not currently timetabled for debate, officially due to current lack of parliamentary time. The main purpose of the proposed legislation is to transpose the 1998 and 2001 European directives on genetically modified organisms into French law.
- 2 The bill seeks to streamline procedures relating to the evaluation of risks, the authorisation of dissemination and the surveillance of GM production which has already been authorised. It proposes to establish a *Haut Conseil des biotechnologies* to fulfil this role². This Council will act as an advisory body to the government on issues relating to biotechnology. It will also be responsible for evaluating risks posed by the confined use or voluntary dissemination of GM organisms and for proposing measures to avoid or limit those risks. It is provided that the Council will act as a consultative body with respect to applications for licences. Any licence application for the use of GM products will have to be examined by the Council. It is proposed that the Council will be comprised of two sections: one scientific and one economic and social. The members of the first section will be scientists from the fields of genetics, public health, agronomy and the environment. The economic and social section will comprise representatives of consumer, patient and environmental protection associations, together with social scientists, and representatives of industry, agriculture and distribution.
- 3 The bill also transposes the provisions of article 26 of the 2001 directive enabling the Member States to take appropriate measures to avoid the accidental presence of GM organisms in other products. It empowers the minister of ag-

¹ References here are to the Bill as adopted by the French Senate on 23 March 2006. See Annex II/8.

² Article 3 *Projet de loi*.

riculture to impose measures relating to production techniques, and in particular concerning the sowing of GM crops, in order to avoid economic loss resulting from cross-pollination. Agents from the service for the protection of plants are to be responsible for ensuring compliance³. If the conditions imposed are not respected, the administrative authorities are empowered to order the total or partial destruction of the crops concerned. The bill provides that the GM crop farmer is to bear the cost of implementation of the conditions imposed.

2. The proposed compensation and liability regime

- 4 The bill includes a compensation regime for farmers who suffer economic loss as a result of contamination of their crops by neighbouring GM crops. The bill states that GM farmers are to be strictly liable for certain economic loss suffered by other farmers as a result of contamination of their crops by genetically modified organisms which have been authorised to be put on the market⁴. The provisions state that the compensation scheme does not prevent the GM farmer from being liable on any other basis – there is nothing therefore to prevent the farmer of the contaminated crop from bringing an action for damages in the civil courts.
- 5 Every farmer producing GM crops which have been authorised to be placed on the market must pay a financial guarantee destined to cover his civil liability. This guarantee must take one of two forms: it must either take the form of insurance cover, or, in the absence of such cover, of a levy imposed on the producer to finance a guarantee fund managed by the *Office national interprofessionnel de grandes cultures* („ONIGC”). This levy is due each time a GM crop is sown and is payable on the date that the compulsory notification of the cultivation of a GM crop is made to the ministry of agriculture⁵. The provisions also state that trade organisations concerned by the obtaining, the production and sale of GM seeds and plants will be required to contribute to the fund. The purpose of the fund is to stand in for liability insurance in view of the current shortfall in suitable insurance policy cover in this area. The bill thus states that the fund is to be established for a maximum period of 5 years,⁶ which is designed to allow sufficient time for the development of sufficient insurance policy cover⁷.
- 6 Farmers who produce crops which become subject to labelling requirements as a result of contamination will be entitled to make a claim for compensation

3 Article 21.

4 Article 21.

5 The amount of the levy will be fixed by the agriculture and finance ministers, but the bill proposes a ceiling of 50 euros per hectare.

6 Article 27.

7 *Projet de loi, exposé des motifs*, p.15.

to the ONIGC. Provided that the conditions for compensation are fulfilled, the ONIGC will present the farmer with an offer of compensation within the six months following the application. The liability of the GM producer is therefore indirect, since the farmer will claim compensation from the fund, and the Organisation managing this fund will then be able to recover the sums paid from the GM farmer's insurers where insurance cover has been arranged. Although it is not specifically stated in the bill, presumably after the initial 5 year period, compensation will be paid directly by the GM producer's insurers.

- 7 The bill also provides that, where a GM farmer has not taken out liability insurance cover (and has therefore presumably contributed to the fund), the ONIGC will be entitled to recover directly from him for sums paid out where the GM farmer has failed to comply with technical conditions imposed by the ministry of agriculture for the cultivation of GM crops.
- 8 In order to be entitled to compensation, the farmer will have to show the following:
 - The contaminated crop was intended at the time it was sown either to be sold as a product not subject to GM labelling requirements, or to be used to produce such a product;
 - the labelling of the contaminated crop has been made compulsory under Community or national rules on labelling products containing genetically modified organisms;
 - the affected crop comes from a parcel of land that is situated near („à proximité”) to the genetically modified variety concerned; (the explanatory text accompanying the bill states that a ministerial decree will stipulate the maximum perimeter around a GM crop within which the non-GM variety must be found to qualify.)
 - The affected crop has been grown in the same cultivating season as the genetically modified variety.
- 9 It will be for the farmer who is applying for compensation to establish these conditions. He will thus have to show that the contaminated crops come from a field near a parcel of land where GM crops are being cultivated (the notion of „proximity” is not defined), and also that the contaminated crops come from the same year of production as the GM crops concerned. Apart from establishing the existence of these conditions, the applicant will not have to show any causal link between the cultivation of GM crops and the contamination.

- 10 The compensation will represent the depreciation in value of the product corresponding to the difference in sale price of the crops subject to labelling compared to their sale price if they had not been subject to GM labelling requirements. However, compensation for no other types of loss is provided for under the scheme. On this basis the victim will have to seek compensation for any other economic loss through the courts, relying on general liability rules. The bill does specifically provide that a farmer who seeks compensation under the scheme for the devaluation of his crop may also seek remedies under general liability rules for any other loss incurred. The bill makes no mention of the availability of injunctive relief.
- 11 Where the applicant himself has contributed to the loss by his own fault, the level of compensation he receives under the scheme will be reduced in proportion to the damage that he has caused.
- 12 Where the fund has paid out compensation, it has a recourse action for the amount paid from the insurers of the GM farmers. Where the GM farmer does not have insurance cover, and has failed to respect the conditions imposed for the dissemination of his crops imposed by the agriculture ministry, the ONIGC will be entitled to claim a refund of sums paid directly from the farmer concerned.
- 13 No reference is made in the bill to problems of multiple causation. Such issues will not be raised with respect to the application for compensation from the fund, since the farmer will be entitled to compensation provided the conditions are fulfilled, irrespective of how many alternative causes of his loss exist. However issues relating to multiple causation will clearly be raised in other cases: in actions brought in the courts for damages under traditional rules; and in recourse actions by the ONIGC against insurers of the GM producers or against the farmer himself. We will deal with this question in more detail when we consider the current law.
- 14 The bill also introduces criminal offences. Any person cultivating GM crops will be required to notify the agriculture ministry of the place where the crops are being grown. The provisions also provide that the agriculture ministry, following consultation with the environment ministry, will impose technical conditions on the growing or planting of authorised GM crops in order to limit the accidental contamination of other crops. Non compliance with these provisions is punishable by a prison sentence of two years and a 75,000 euro fine. The obstruction of inspections destined to ensure compliance is punishable with six months imprisonment and a fine of 7,500 euros⁸.

8 Article 22.

3. Comparison with other specific liability or compensation regimes

- 15 A number of special liability and compensation regimes exist in France, but each is specific to its own area of liability and compensation, and none of the schemes fit into a broader system. This dissipation of liability and compensation rule is widely criticised by French doctrinal writers⁹. A specific liability regime for damage caused by defective products was introduced in France as a result of the national transposition of the 1985 Product Liability directive. In other areas, statutory compensation schemes have been introduced. This is the case for industrial accidents, for victims of serious crimes and terrorist attacks, for road and medical accidents. Compensation funds have also been established to compensate damage caused in very specific circumstances: for victims of HIV and Hepatitis C from infected blood transfusions, and for victims of asbestos.

II. General Liability or other Compensation Schemes

1. Introduction

- 16 There is currently no legislation in force providing for compensation for economic loss suffered by farmers as a result of contamination of their crops by GM crops. Any liability will therefore be based on general civil and administrative liability principles. To the best of our knowledge, there has been no decision of the French courts on this particular question. This issue has also been very little considered by doctrinal writers. Some analysis of the potential liability of producers, farmers and distributors for personal injury caused to consumers as a result of eating defective GM food exists, but these rare articles only refer at best in passing to the question of economic loss.
- 17 As has already been stated, the government bill currently being debated in the French Parliament proposes that, for any loss not covered by the proposed legislation, the farmer will retain the possibility of seeking compensation through traditional liability rules. These liability rules will thus remain relevant if the bill is adopted in its current form.
- 18 Different jurisdictions will apply depending on whether the action is brought against a private or a public body. Actions against private defendants will be based on private law principles and brought in the civil courts, whilst actions against public entities will be subject to administrative law principles and brought in the administrative courts.

⁹ See, for example, Philippe Brun *Responsabilité civile extracontractuelle*, Litec 2005, p.522.

2. Causation

- 19 Normal principles of causation will be applied to this question. It is for the claimant to establish the existence of a causal link between the act or omission generating liability and the economic loss. Therefore there will be no liability where the victim cannot establish that the harm would not have occurred anyway in the absence of any contamination by GM crops.
- 20 Whilst in principle the claimant must establish the existence of a causal link with certainty, the French courts often adopt a flexible approach. They are thus willing to accept the existence of a causal link where there are shown to be „serious, specific and concordant”¹⁰ indications of such a link.
- 21 Similarly, the courts on occasions proceed by elimination. The causal link is presumed by the fact that there is no other apparent cause of the harm. This approach has been used to establish the causal link between contamination by the hepatitis C virus and blood transfusions. Blood transfusion centres have been found liable on this basis where the victim shows that the contamination occurred consecutively with the blood transfusion and that he was not within a category of patients having a high risk of contamination¹¹. Using the same approach, the courts have also on occasions allowed claims where walls have collapsed or greenhouses smashed as a result of sonic booms from aeroplanes¹².
- 22 Thus, in such cases, the courts are willing to accept the existence of a causal link by the presence of a high degree of probability of such a link.¹³
- 23 In certain cases the courts even impose liability without strict proof of causation, on the basis of the creation of a risk of damage¹⁴. In such cases the courts have found the defendant liable on the basis that, voluntarily or by negligence, he has created a situation which is objectively dangerous and as a result the victim had suffered damage which is the foreseeable consequence of the creation of the risk. The application of this principle tends to be restricted to cases where the creator of the risk has committed a fault¹⁵. It is therefore possible that the French courts may use such a technique where it is established that the GMO farmer failed to apply proper segregation measures for example.

10 « *graves, précises et concordantes* » Civ. 2^e, 14 déc. 1965, D. 1966, p.453 ; Cass. civ. 1^{re}, 24 janv. 2006, JCP G II 10082, note L. Grynbaum (causal link growth hormones and Creutzfeld-Jacob disease).

11 Civ 1^{re} 10 juin, 2 juillet, 10 juillet 2002.

12 Civ. 2^e, 29 avril 1969, D. 1969, p.534.

13 Flour, Auber & Savaux *Droit civil. Les obligations. Le fait juridique*. Armand Colin 2005, p.163.

14 G. Viney & P. Jourdain *Traité de droit civil. Les conditions de la responsabilité*, Paris, LGDJ 1998, n°369.

15 Civ 2e, 11 March 1976, JCP 1976, IV, p.157; Civ. 3e, 2 Dec. 1980, JCP 1981, IV, p.69.

- 24 Where there are several sources of the contamination, liability will be joint and several. The claimant will therefore be able to take an action against any one of the producers who will then have a recourse action against the other producers of GM crops¹⁶. Where there are a number of potential sources of contamination but it is uncertain which of the producers caused the damage to the claimant's crop then the position is more difficult. The French courts have been prepared to recognise a causal link in cases where the claimant has been injured by a bullet shot by any one of a number of hunters¹⁷. In such cases the courts have been willing to impose liability on all the hunters for the full loss incurred. Liability on occasions has been based on the finding that as a group the hunters were collectively in control of the „wave” of bullets that were shot. Alternatively, and more convincingly, liability has been found on the basis that it was the organisation of the hunt which had caused the loss and all the defendants were each individually responsible for this defective organisation. It would therefore seem difficult to apply this technique to the situation in question since the courts in the hunting cases have imposed liability effectively on the basis of some form of cooperation or action as a group by the defendants. However, the courts have clearly used artificial solutions here in order to ensure liability for fault. It does therefore indicate the willingness of French courts to adopt a flexible approach to such issues in appropriate cases.

3. Standards of Liability

(a) Contractual liability

- 25 A farmer who can establish that seeds sold to him were contaminated may be able to rely on an action for breach of contract against the seller based on hidden defects (*vice caché*) under article 1641 civil code. This action allows the claimant to recover for loss of value and damages for consequential loss caused by the unfitness of the goods for their normal use. In order to succeed, he will have to show that the defect was not one that he would have been expected to discover at the moment of purchase.
- 26 Under article 1603 civil code the farmer will also potentially have a claim for lack of fitness for the particular purpose for which the seeds were sold under the contract if it was made clear that the buyer wished to purchase seeds free of GM contamination, or with a lower level of contamination than those sold. Again, the buyer in this case would be entitled to compensation for the reduction in value, and damages for consequential loss.

¹⁶ for example TGI Bordeaux 28 Feb. 1968 : a company was found liable for damage to the claimant's fish stocks even though the damage was partly due to effluent coming from neighbouring houses.

¹⁷ Cass. civ. 2^e, 2 avril 1997, Bull. civ. II, n°112 ; Cass. civ. 2e, 5 juin 1957, D. 1957, p.493, note R. Savatier.

(b) Liability for fault under article 1382 civil code.

- 27 Article 1382 of the civil code imposes liability in tort for harm caused by fault. An action could potentially be brought on this basis where an unauthorised dissemination of GM organisms has been made, or where the conditions imposed by the licence have not been respected. Where there are clearly established statutory rules defining the required conduct for GMO agriculture, fault will be established on the basis of the non-compliance with these rules.

(c) Article 1384-1 of the civil code

- 28 Article 1384-1 of the civil code deals with liability for harm caused by inanimate objects. The defendant will be liable where he has control (*garde*) of the object, and the claimant shows that there is a causal link between that object and the damage. This article has been used by the courts to impose liability without fault, and even without evidence of defect, provided that the object (in this case the genetically modified organism) has had an active role in the damage caused. A GM farmer could therefore be considered as the person in control (*le gardien*) of the genetically modified organisms which have caused damage to the neighbouring crops by contaminating them and thus reducing their economic worth. The courts have in this way imposed liability on defendants for damage caused by pollution. Hence, a company producing chemicals was found liable on the basis that it had control over the gas that was emitted from its factory¹⁸, and another was found liable on the same basis for pollution caused by emissions of cadmium and lead particles¹⁹. In general however, the French courts have been reluctant to impose liability on this basis in cases of environmental pollution. This reluctance is perhaps due to the fact that the rules are too favourable to the victim since he need establish neither the fault of the defendant, nor the presence of an abnormal level of disturbance or interference²⁰.

(d) Troubles anormaux du voisinage. (Nuisance caused by neighbours)

- 29 Liability is perhaps more likely to be based on an action for *troubles anormaux de voisinage*. An action on this basis applies where the claimant can establish the existence of an unreasonable level of nuisance caused by a neighbour. Courts initially based liability on article 1382 of the civil code but now recognise *troubles du voisinage* as an independent legal principle. The

¹⁸ Cass civ. 17 December 1969.

¹⁹ CA Douai 25 April 1991. Prieu, p. 921, Viney « Les principaux aspects de la responsabilité civile des entreprises pour atteinte à l'environnement en droit français » JCP 1996, 3900, n°10.

²⁰ G. Viney « Les principaux aspects de la responsabilité civile des entreprises pour atteinte à l'environnement en droit français », p.41.

claimant is not required to establish any fault²¹. The disturbance or nuisance must be continual or at least repetitive, and it must be considered by the court to be unreasonable or excessive. Liability can be imposed even though the defendant has obtained authorisation from the relevant administrative authorities for his activity²².

- 30 This principle is applied inconsistently by the courts. In some cases the judge assesses the unreasonable nature of the trouble by reference to the damage caused, and on other occasions by reference to the behaviour itself.²³
- 31 Examples illustrate the relevance of these principles to the case in hand. Thus the Paris court of appeal found a farmer liable for *troubles du voisinage* where a treatment of crops using hormones had led to the deterioration of neighbouring lettuce crops²⁴. In the same way a cement manufacturer was found liable for the damage to neighbouring crops where the leaves of the claimant's crops were found to be covered with a fine film of grey dust, which prevented efficient photosynthesis and thus restricted growth.²⁵

(e) Articles 1386-1 to 1386-18 Civil code

- 32 Articles 1386-1 to 1386-18 of the civil code incorporate the 1985 Product Liability directive into French law. Unlike the directive, the French legislation does not restrict damage to physical injury and damage to consumer goods, and includes damage to goods owned by a business. Harm to nonGM plants and the economic loss which results could therefore potentially fall within the French product liability legislation. However, it would seem difficult to apply the French product liability rules to the situation in hand since (1) it is difficult to see how in the majority of cases a GM plant or the genes in that plant could be considered as defective. A product is defined as defective under the legislation where it does not meet the level of security that people generally are entitled to expect. It would seem very unlikely that a court would find a defect merely on the basis that there has been cross-pollination; (2) the European Court of Justice has made it clear that the 1985 directive is a maximum harmonisation measure, and on that basis the French provisions may be argued to contravene the Community rules.

21 Cass. civ. 23 mars 1982, D. 1983, IR, p.18, obs. A. Robert ; Civ. 2^e, 9 nov. 1986, Bull. civ. II, n°172.

22 Cass 2^e, 22 Oct 1964, a manufacturer of castor oil was found liable despite the fact that he had obtained the relevant administrative authorisation for his activity. (G. Viney, *Traité de droit civil : les conditions de la responsabilité*, Paris, LGDJ 1998, n°952.)

23 M. Prieur *Droit de l'environnement*, Paris, Dalloz 2004, n°1159.

24 CA Paris 8e chambre, 26 juin 1980, jurisdata n° 098444

25 CA Montpellier 11 May 1983, jurisdata n°600730.

(f) Liability of administrative authorities

- 33 The administrative authorities could potentially be liable for fault in a number of circumstances, either on the failure to attach adequate conditions to an authorisation, or on the failure of the authorities to use their powers to enforce regulations and conditions of exploitation. In such cases, any action by a claimant would be brought before the French administrative courts, and liability would be based on fault, applying administrative law rules.

4. Damage and remedies

- 34 The basic rule applicable with respect to the payment of damages is that they are intended to compensate for the entire loss suffered by the claimant. The court therefore looks to place the victim in the position he would have been in if the act giving rise to damage had not taken place.
- 35 The farmer whose crop has been contaminated will be entitled to compensation for any loss of profit he may suffer as a consequence. The loss of profit will be calculated on the basis of the reduced sale price compared to the price the product would have fetched at the time of sale if it had not been contaminated, or the loss of market value at the time of judgement. French courts are very flexible with respect to the nature of the loss which they consider as recoverable²⁶. Hence, not only direct financial loss based on the reduction in value of the contaminated crop, but also more indirect losses such as the longer term cost to the business will also be compensated provided that these can be established with sufficient certainty on the basis of expert studies. Provided these can be linked to the contamination, the increased overhead costs due to the need to find a new market for the products, or to regain producer status could be compensated on this basis. There is equally nothing to prevent damages from being awarded to compensate the non-GM farmer for the expense of sampling and testing costs provided of course that there is a corresponding basis for liability and an appropriate causal link.
- 36 There would appear to be several obstacles to an action brought by a farmer to claim for the losses incurred as a result of a reduction in demand by consumers due to the mere fear of GM contamination. Firstly, in order for liability of the GM farmer to be engaged, the claimant would have to establish a basis of liability: liability would not be incurred simply on the basis of the presence of GM crops in the area. Secondly, the claimant would have to establish a causal link between the act or omission generating liability and the loss incurred, and such a link would presumably become increasingly difficult to establish the further the GM crop is geographically from the non-GM crop. It could be argued by the defendant that his act or omission did not actually cause the

²⁶ G. Viney & P. Jourdain *Traite de droit civil. Les conditions de la responsabilité*, Paris, LGDJ 1998, p.19.

claimant's loss if the reduction in value was due to the general fear of possible contamination due to the presence of GM crops in the area, and the particular act or omission of the defendant made no difference to this, although the courts may be willing to recognise a causal link if an act or omission of the particular GM producer at least contributed in part to the drop in consumer demand. Finally, the farmer would face the difficulty of establishing that his reduction in profits is due to the public fear of contamination, and the quantification of such loss is likely to pose problems.

- 37 Under general liability regimes, there is no duty on the producer to take out liability insurance.

III. Sampling and testing costs

- 38 There are no specific rules as to who is to bear sampling and testing costs. Under article 212-1 of the consumer code the person responsible for putting the product on the market is required to ensure the compliance of the product with its description. Contractual rules also impose a guarantee of fitness for purpose and absence of defect on the seller. The supplier will therefore in certain circumstances need to arrange for the seeds or crops to be tested in order to ensure compliance, although this will also obviously depend on the specific terms of the supply contract. Such obligations will be particularly onerous on farmers who wish to sell their crops as „organic”, which may require a very low or even zero level of contamination. Where there is a risk of contamination, the farmer may also be obliged to arrange sampling and testing to ensure compliance with any labelling requirements.
- 39 Where the non-GM farmer is able to establish a fault of the GM crop producer, or an alternative basis for liability, and that there is a causal link between this generating act or omission and the contamination or the need to test the crops, then the farmer could presumably claim compensation for this expenditure from the GM crop producer.

IV. Cross-border issues

- 40 There are no special jurisdictional or conflict of law rules in force or planned in France on this question. According to French conflict of law rules, the law applicable will be the law of the place where the tort has occurred (*lex loci delicti*)²⁷. However, in cases of cross-pollination, such a rule appears ambiguous since it is not clear whether it refers to the place where the tortious act (*fait générateur*) took place, or to the place where the damage occurred. Recent decisions of the *Cour de cassation* indicate that either the place of the tortious act, or the place of the damage may apply, depending on the circumstances of the case. The court will choose the place which has the greatest link

²⁷ Cass. civ. 25 mai 1948, rev. Cr. 1949, p.89.

or connection with the events. This will in most likely be the place where the damage (*i.e.* here, the contamination) occurred²⁸.

- 41 The Brussels I regulations will apply to the question of jurisdiction. The claimant will therefore have the choice as to whether to bring the action in the jurisdiction of the defendant's place of residence, or in the jurisdiction where the harm took place.

²⁸ Cass. civ. 1^{re}, 11 mai 1999 ; Cass. civ. 1^{re}, 28 oct. 2003. T. Vignal *Droit international privé*, Armand Colin 2005, p.216.

9. GERMANY

Jörg Fedtke

I. Special Liability or Compensation Regimes

1. Introduction

- 1 Germany introduced in 1990 a special legal regime for GMOs, the so-called *Gentechnikgesetz*, which was subsequently amended on several occasions.¹ It contains the general legal framework for the development, production or use of GMOs. Like most other German statutes dealing with dangerous objects and/or activities, the *Gentechnikgesetz* thereby establishes a strict form of delictual liability (so-called *Gefährdungshaftung*).² These rules, however, only apply to a limited number of facilities in which GMOs are developed, produced, multiplied, stored, destroyed or moved within the physical confines of a given research or special production site³ as well as any other activities for which a permission to circulate particular GMOs *for the general use by others* has not yet been granted.⁴ Crucial to the understanding of the current situation in Germany is thus the distinction between, on the one hand, GMOs which can potentially contaminate other crops but are nevertheless used or handled on the basis of such a general permission (so-called *Umgang*⁵) and, on the other, those for which such a permit has not been issued or which are put in only limited circulation and *without* permission to make offspring or reproductive material such as seed available to others.⁶ Only the second group of facilities or activities, which have in common the fact that the GMOs are still isolated from wider circulation, are subject to the strict liability regime of the GenTG and this mainly covers laboratories conducting research and development within closed facilities, including the sites on which GM crops are tested (so-called *Freisetzungen*), but also individuals or companies who for the first time put in circulation GMOs on the basis of a limited permit which

1 *Gentechnikgesetz* (GenTG) of 20 June 1990, BGBl. I 1990, 1080 ff. Major amendments occurred in December 1993 (BGBl. I 1993, 2066 ff.), December 2004 (BGBl. I 2005, 186 ff.) and March 2006 (BGBl. I 2006, 534 ff.).

2 §§ 32 ff. GenTG.

3 So-called *gentechnische Anlage*.

4 See § 2 GenTG. §§ 7 ff. GenTG establish the requirement of a permit for facilities of this kind. §§ 14 ff GenTG establish the requirement of a permit to set free or market particular GMOs.

5 § 3 no. 6a GenTG.

6 So-called *erstmaliges Inverkehrbringen*. W. Lülling/G. Landsberg in W. Eberbach/P. Lange/M. Ronellenfitsch, *Recht der Gentechnik und Biomedizin* (44. Ergänzungslieferung 06/2004), § 32 GenTG, no. 55.

does not allow them to be made available to others for (re)productive purposes.⁷ Once GMOs are legally circulated for general use, including (re)production, they move out of the special liability regime established by the GenTG.

- 2 The issues raised in this study focus on such *subsequent* use of genetically modified seed and the production of GM crops by farmers. These will in all likelihood be GMOs which have already been licenced for general use by others, as farmers cannot themselves (unlike the operators of research facilities or seed producers) apply for the required permits to develop, test or put new GMOs in (limited) circulation.⁸
- 3 Farmers raising crops from such authorised seed will, however, be subject to the general rules of the German Civil Code (*Bürgerliches Gesetzbuch*⁹) and here, more specifically, to the provisions protecting the property interests of their neighbours (§§ 903 ff. BGB). The application of these rules to damage caused by GM crops will be discussed in more detail below.
- 4 This apparently neat distinction between, on the one hand, the general use of permitted GMOs (property law and the general rules of tort law) and, on the other, GMOs for which such a permit has not yet been issued (strict liability on the basis of the GenTG) is, however, less clear than it would seem at first blush. This is most obvious in the case of property law. The provisions which protect the property of land owners, and which, in Germany, are crucial to the liability of the user of GM crops vis-à-vis his neighbours, are based on three very flexible notions. An interference with land (*Einwirkung*) can, first, affect neighbouring property in varying degrees (ranging from ‘non-existent’ to ‘marginal’ or ‘substantial’). Only if interference is of sufficient weight will a neighbour of a farmer who uses GM crops be able to claim equitable compensation in money.¹⁰ He will, moreover, not be able to demand that the disturbing activity (here the use of GM crops) be terminated and/or invoke tort law to claim damages if such use of land ‘corresponds to local custom’ and if the other party is unable to prevent the interference with the help of measures which are ‘economically reasonable’ in these cases. In practice, these rules thus require a considerable amount of interpretation.
- 5 Widespread public concern regarding the level of protection offered by the BGB for individuals affected by a legalised use of GMOs, particularly by

7 §§ 32(1), 3 no. 7, 16(2) and 14(1) sent. 2 GenTG.

8 R. Müller-Terpitz, *Genrapsbauer wider Willen*, *Neue Zeitschrift für Verwaltungsrecht* 2001, 46 (48); T. Linke, *Nochmals: Zufallsauskreuzungen und Gentechnikgesetz*, *Natur und Recht* 2003, 154 (157).

9 BGB.

10 § 906(2) BGB.

farmers, prompted legislative action in 2004.¹¹ The *Gentechnikgesetz* was thereby amended to include, in particular, § 36a GenTG, which now provides standards for the interpretation of the most important provision of property law in this context, § 906 BGB. This is a novel approach in the sense that the GenTG now also addresses problems caused by GMOs which are used after a permit to circulate them for general use by others has been granted.¹²

- 6 The *Gentechnikgesetz* is thus a special liability regime which specifically addresses liability for all GMOs but is limited in its scope of application to very specific cases. Farmers suffering damage from actual or feared GMO presence in non-GM crops can therefore only invoke the GenTG to claim compensation if the contamination was caused by research and development (usually by open test sites¹³) or in the case of a very limited circulation of GMOs which excludes permission to further circulate their seed to others. The latter will be necessary in the early stages of a marketing process prior to the production of genetically modified agricultural goods. Apart from providing a number of legally binding standards for the interpretation of property law, the statute does not cover the most important case of damage resulting from the actual or feared GMO presence in GM-free crops, which is the risk of contamination by GM crops subsequently grown by farmers in the same area.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 7 Establishment of the causal link between the alleged damage and the presence of a GMO is of prime importance in the area of strict liability, which cannot be limited by other factors such as fault or wrongfulness. The decisive test in applying the GenTG is thereby the traditional *condicio sine qua non* formula, which is not tempered by the exclusion of particularly unlikely events. In a similar vein, research and development risks¹⁴ are not excluded from the ambit of § 32 GenTG.¹⁵
- 8 While claimants bringing a case on the basis of the GenTG will have to prove, usually with the help of expert opinion and testing, the existence of damage and causation through a GM crop (at their own cost), it will then be presumed that such damage was specifically caused by its modified characteristics.¹⁶

11 *Gesetz zur Neuordnung des Gentechnikrechts* (GentechnikneuordG) of 21 December 2004, BGBl. 2005 I 186 ff.

12 So-called *Nutzungsbeeinträchtigungen*.

13 So-called *Freilandversuche*.

14 So-called *Entwicklungsrisiken*.

15 W. Lülling/G. Landsberg, op. cit. note 6, § 32 GenTG, nos 93 ff.

16 So-called *Ursachenvermutung*, § 34(1) GenTG.

This limited presumption of causation is refutable if it can be proven that the damage in question was caused by the unmodified genes of that particular GMO.¹⁷ The GenTG thus provides only a limited degree of protection from the typical difficulties of proving causation in such cases. Some assistance, however, is given by § 35 GenTG. This provision requires the operator of a facility in which GMOs are developed, tested, produced or otherwise handled to provide information concerning the technical process, including tests on open land, so that victims can better ascertain whether claims based on the GenTG actually exist. In the case of tests on open land, detailed information will also be available from the authority which issued the required permit as such tests must be publicly registered.¹⁸ This register must thereby reveal to the general public the specific type of crop, its modified characteristics, and the exact location and size of the field;¹⁹ additional information will be disclosed to anyone with a legitimate interest (e.g., potential victims who can show that their property was subject to interference by GMOs).²⁰

(b) How is the burden of proof distributed?

- 9 As indicated above, there is no reversed burden of proof beyond the scope of § 34 GenTG. Different sources of adventitious presence of GMOs are taken into account within the normal rules of evidence. *Prima facie* evidence will thereby often help the victim. If a particular GM crop is thus developed, tested, produced or otherwise handled in a certain area, and neighbouring fields are subsequently contaminated with GMOs of this kind, it will be extremely difficult – assuming the typical course of events – for the operator of the facility in question to avoid liability on the basis of § 32(1) GenTG. Specific proof of a different cause may be presented to counter the assumption²¹ but will only be available in rare cases as claims based on the GenTG involve, by definition, only contamination by GMOs which have thus far seen little or no circulation. The specific genetic profile of these GMOs will hardly leave room for alternative causes.

(c) How are problems of multiple causes handled by the regime?

- 10 The GenTG – as far as it establishes strict liability – does not include special rules on alternative, potential or uncertain causation. The general rules of the BGB, however, apply. If it is thus not possible to identify as the true source one of several possible tortfeasors who could potentially have individually caused the contamination in question due to the cultivation of the same GM crop in the area, each of them will be jointly and separately responsible for the

17 § 34(2) GenTG.

18 In accordance with Regulation 2001/18/EC.

19 § 16a(2) GenTG.

20 § 16a(5) GenTG.

21 BGH NJW 1978, 2032.

whole interference unless their respective contributions were in fact limited and particular shares can be apportioned according to § 287 of the Code of Civil Procedure.²² The same principle is applied in cases where several tortfeasors can be safely identified as having caused the damage but it remains uncertain to which extent one or the other is actually responsible.²³ Beyond these cases of alternative, potential or uncertain causation, joint and several liability is also expressly established by § 32(2) GenTG if the same damage is caused by more than one tortfeasor. The internal distribution of costs will depend on their respective shares of responsibility, § 32(2) sent. 2 GenTG, and recourse is possible on the basis of § 426(2) BGB if one of the responsible parties comes up for the full amount.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 11 The *Gentechnikgesetz* establishes, for the cases covered by § 32(1) GenTG outlined above, strict liability.

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 12 Contributory negligence is taken into account by virtue of § 32(3) GenTG, which expressly refers to the relevant provision of the German Civil Code.²⁴ This leads to a corresponding reduction in the amount of damages awarded and can, in severe cases, even exclude compensation altogether.²⁵ Factors which can contribute to the damage include failure to warn the tortfeasor of an unusually high amount of damage or failure to avert or at least limit damage. Courts thereby weigh contributing factors against the hazards resulting from the handling of GMOs.
- 13 Other defences are not available under the *Gentechnikgesetz*. Wrongful acts or omissions of third parties are expressly not accepted as intervening factors.²⁶

(c) If it is not a liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

- 14 See the answers given at nos 12 and 13 above.

²² § 830(1) sent. 2 BGB.

²³ W. Lülling/G. Landsberg, op. cit. note 6, § 32 GenTG, nos 105 f.

²⁴ § 254 BGB.

²⁵ See, e.g., BGH VersR 1963, 874; BGH VersR 1967, 1080; BGH VersR 1971, 1018.

²⁶ § 32(3) sent. 3 GenTG.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 15 Within the ambit of the strict liability regime as established by the GenTG, no distinction is made between crops and seed. The crucial point to note here, though, is that production of GMOs is not covered by § 32(1) GenTG insofar as it concerns commercial activities going beyond research and development. Any production process which serves to circulate and make GMOs available for wider use is therefore subject to product liability legislation, property law and/or the general rules of tort law.²⁷

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 16 The liability regime outlined above is not exclusive. Claims based on the general rules of the German Civil Code and/or any other legal basis may thus be brought simultaneously with claims based on § 32(1) GenTG.²⁸
- 17 Two exceptions, however, apply. Victims of damage caused by medical preparations containing GMOs are directed to the Medical Preparations Act²⁹ if the medical product in question was subject to a licensing procedure or expressly exempted from such.³⁰ All other products containing GMOs require a special permit allowing their general circulation, which can either be granted on the basis of the *Gentechnikgesetz* itself³¹ or other statutes which achieve a comparable level of safety.³² Claims based on § 32(1) GenTG are excluded in both cases.³³

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

- 18 § 32(1) GenTG provides compensation for, inter alia, property damage. Such damage is thereby defined by recourse to the general rules of the Civil Code,³⁴ which aim at full indemnification for a loss either in kind³⁵ or (if restitution *in natura* is either impossible, insufficient or possible only at an unreasonable cost) in money.³⁶ The damage will thereby include the loss of future profits

27 W. Lülling, op. cit. note 6, § 32 GenTG, no. 56.

28 § 37(3) GenTG.

29 *Arzneimittelgesetz*.

30 § 37(1) GenTG.

31 § 16(2) GenTG.

32 § 14(2) GenTG.

33 §§37(2) GenTG.

34 §§ 249-253 BGB. W. Lülling, op. cit. note 6, § 32 GenTG, no. 63 f.

35 So-called *Naturalrestitution*, § 249 sent. 1 BGB.

36 § 251(1), (2) BGB.

insofar as they would have probably been accrued under normal circumstances.³⁷ If indeed covered by *strict* liability, any contamination of GM-free crops will thereby often result in the complete loss of marketability because GMOs of the kind covered by § 32(1) GenTG are in most cases still in their experimental stage and excluded for human consumption or feed. Their value will therefore have to be fully compensated. The cost of any necessary decontamination of land will also be recoverable. If crops do remain marketable despite their contamination, the victim will have to reduce the damage by selling them, if possible, in accordance with any rules requiring specific labelling. Any depreciation following from the fact that crops cannot be marketed in the originally envisaged form will thereby be recoverable by taking into account the market price which could have been realised on the basis of private contractual agreements (e.g., with food producers). Costs caused by withdrawing products from the market will have to be compensated. Finally, liability under § 32(1) GenTG will cover indirect costs, such as increased overheads due to the need to find a new market for products, or, more importantly, to regain a certain producer status.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 19 Proof of actual admixture is necessary. § 32(1) GenTG specifically requires an infringement of property by GMOs, which does not arise if customers only fear that a farmer's products are contaminated. It is thereby important to note that the *Gentechnikgesetz* envisages that products, in particular foodstuffs and feed, may be produced through traditional techniques, ecological approaches or genetical engineering. None of these mechanisms is in any way privileged, and will, in future agricultural practice, probably appear side by side in many regions. An attempt at zoning, and thus keeping apart different approaches on a larger scale, is not made. Farmers will therefore have to tolerate the existence of GMO cultivation in their vicinity despite the possible detrimental effects on their own market, which will inevitably feature more suspicious consumers.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 20 See the answer given at no. 19 above.

(d) Which are the criteria for determining the amount of compensation?

- 21 See the answer given at no. 18 above.

³⁷ § 252 BGB.

(e) *Is there a financial limit to liability?*

- 22 § 33 sent. 1 GenTG limits financial liability to € 85 million for all types of damage envisaged by § 32(1) GenTG. Several victims suffering damage from the same event will thereby only receive a quota if the total amount exceeds the cap.³⁸

(f) *Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?*

- 23 The *Gentechnikgesetz* seeks to ensure compensation by placing potential tortfeasors under an obligation to create a mechanism which guarantees the payment of possible future damages (so-called *Deckungsvorsorge*) caused by particularly dangerous facilities³⁹ or the setting free of GMOs in the course of tests.⁴⁰ This obligation can be fulfilled either by third party insurance⁴¹ or an indemnification guarantee or a warranty (so-called *Freistellungserklärung* or *Gewährleistungsverpflichtung*) declared by the state (either on the federal or provincial level).⁴² § 36 GenTG is, at present, dormant and will have to be activated by ordinance. Farmers will, in any case, not be subject to these obligations, which do not cover the use of GMOs in wider circulation.

(g) *Which procedures apply to obtain redress?*

- 24 The *Gentechnikgesetz* does not specify any special procedures for obtaining redress on the basis of § 32(1) GenTG. The general rules apply.

(h) *Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?*

- 25 Injunctive relief is available only on the basis of property law (§ 1004 BGB), which will be discussed in Part II below.

5. Compensation funds

- 26 An alternative compensation fund was proposed by the *Bundesrat*, Germany's second legislative chamber representing the States, in April 2004.⁴³ The idea was developed in the context of the discussions surrounding the level of pro-

38 § 33 sent. 2 GenTG.

39 § 7(1) nos 2-4 GenTG.

40 § 36(1) GenTG.

41 § 36(2) no. 1 GenTG.

42 § 36(2) no. 2 GenTG.

43 BR-Drs 131/04 of 2 April 2004.

tection offered to individuals affected by a future general use of GMOs, particularly by farmers, and was intended to cover compensation made necessary for the interference of neighbouring property on the basis of § 906 BGB. The *Bundesrat* thereby intended to counterbalance the strict standards for the interpretation of that provision introduced by § 36a GenTG. It was feared that the new regime, discussed in more detail below, would, in practice, establish prohibitively high standards of care for the cultivation of GM crops and, in turn, *de facto* (if not *de jure*) prevent or at least substantially limit the development of agriculture based on genetical engineering.

- 27 The incoming new government of Christian Democrats and Social Democrats declared in November 2005 that it would review the possibility of a compensation fund, though an insurance mechanism seems to be the preferred solution.⁴⁴

(b) How are these funds financed (e.g. in the form of a levy on sown or harvested GM crops, or a levy on the sale of GM seeds, or a levy on fees to organic certification bodies)?

- 28 The proposal of the *Bundesrat* envisaged the fund to be financed both through contributions of the state and operator groups which draw economical advantages from GM-based agriculture (these were not identified in the draft but could include GM crop farmers, seed importers or developers, and the biotech industry). The precise method of determining contributions of the GM crop industry was not specified at that point; details were left for regulation by federal ordinance. At present, producers of seed are not willing to contribute to such a fund. They are instead focusing on the development of different mechanisms which aim to help GM crop farmers in dealing with liability risks. These mechanisms include indemnity clauses which channel liability from the farmer to the producer of seed, arrangements under which the seed producer himself takes direct and full legal responsibility for the raising of GM crops by the farmer (so-called *Vertragsanbau*), or the obligation to buy contaminated crops from the affected neighbours (so-called *Märka* model).⁴⁵

(c) Is there any contribution granted by the national or regional authorities?

- 29 Contributions to the fund were to be allocated from the national budget.

(d) Is the contribution to the fund mandatory or voluntary?

- 30 The precise nature of contributions made by the industry is not entirely clear but it seems as if they would have been mandatory.

⁴⁴ See the Coalition Agreement (*Koalitionsvertrag*) of 11 November 2005, no. 8.9.

⁴⁵ See the *Eckpunkte*-paper of the Federal Ministry of Health of June 2006.

(e) Is a balance established between the money paid into the fund and expenses of the fund? If so, at which time intervals are levies adapted to the actual expenses?

- 31 This is not specified by the proposal; details were left for regulation by federal ordinance.

(f) How are the funds operated? Which body is in charge of managing the fund and of deciding about justified claims? Which procedures apply to obtain compensation of loss?

- 32 Most of these aspects were not specified by the proposal; details were left for regulation by federal ordinance. It is, however, clear that a federal authority was envisaged to operate the fund.

(g) Are there any provisions for recourse against those responsible for the actual cause of the loss?

- 33 The fund was supposed to function as an *alternative* source of compensation. Farmers exposed to compensation claims on the basis of § 906(2) BGB due to the contamination of their neighbours' crops/farmland could have shown that they had adhered to all necessary safety standards (particularly those established by § 16b GenTG). In that case, the fund would have stepped in, effectively creating a system of exculpation for the observance of good professional practice (*gute fachliche Praxis*).

6. Comparison to other specific liability or compensation regimes

- 34 The *Gentechnikgesetz* establishes, in principle, a strict liability regime which is fairly similar to those created by other German statutes attempting to address the risks resulting from dangerous objects or activities. It is, however, rather limited in scope and has, thus far, resulted in next to no case law. The most striking feature of the statute is probably the absence of defences, which renders it, within its scope of application, very strict. As in other cases, contributory negligence will, however, be taken into account. In the context of this study, the most important aspect of the regime, however, is that the GenTG will not cover damage caused by GMOs which are put in circulation for general use, including GM crops. The only relevant – and controversial – provision which deals with this economically important issue is § 36a GenTG, which is crucial for the application of property law and which will be discussed in greater detail below.

II. General Liability or other Compensation Schemes

1. Introduction

- 35 Farmers raising crops from GM seed which has been authorised/licensed for *general* circulation will be subject to the rules of the German Civil Code (*Bürgerliches Gesetzbuch*) and here, more specifically, to the provisions protecting the property interests of their neighbours (§§ 903 ff. BGB). Contaminated crops of neighbouring farmers are thus regarded as part of their immovable property (the farmland) until the point of harvest (§ 94 BGB). Such farmland is, in principle, also protected by the general provisions of tort law (§§ 823 ff. BGB), but only within the limits of special rules pertaining to immovable property which oblige the owner or authorised user of a piece of land to accept a certain – albeit limited – level of outside interference. Whether GMOs constitute such an interference with land (nuisance) was in question for some time but has now been confirmed by the introduction of the new § 36a GenTG. Three scenarios have to be distinguished:
- 36 According to § 906(1) BGB, interference which does not adversely affect a neighbouring piece of land – or which affects it only marginally – must be tolerated by its owner or authorised user,⁴⁶ and is thus not regarded as illegal within the scope of §§ 823 ff. BGB.⁴⁷ Neither tort nor property law (nuisance) will offer compensation.
- 37 If land is used in a way which is *customary* in that particular region⁴⁸ and *does* impair a neighbouring piece of land significantly, such influence is again *not* illegal within the meaning of §§ 823 ff. BGB⁴⁹ and must be accepted by the neighbour under the condition that the negative effect cannot be prevented by the other party through measures which are economically reasonable (*wirtschaftlich zumutbar*) within the context of the particular activity (in this case agriculture). § 906(2) BGB will, however, allow the adversely affected neighbour to claim equitable compensation.⁵⁰
- 38 Only if these conditions do *not* apply – i.e. if the land is not used in a way that is customary to that particular region or if the other party could prevent such significant impairment through economically reasonable measures, but fails to do so – can the neighbour demand termination of existing interferences⁵¹ and/or apply for an injunction under the condition that further interference is

46 So-called *Duldungspflicht*.

47 BGHZ 90, 255 ff.; 92, 148 ff.; O. Jauernig in O. Jauernig (ed), *Bürgerliches Gesetzbuch* (11th edn 2004), § 906 no. 8.

48 So-called *ortsübliche Nutzung*.

49 BGHZ 117, 110 ff.; O. Jauernig, op cit note 47.

50 So-called *Ausgleichsanspruch*.

51 So-called *Beseitigungsanspruch*.

imminent (§ 1004 BGB).⁵² Compensation for damage caused to his crops/farmland can then be claimed on the basis of tort law or in an analogous application of § 906(2) BGB.⁵³

- 39 These rules of property law are open-ended and thus require a considerable amount of interpretation. What level of contamination constitutes a substantial interference? Can the use of GM crops, as a very novel form of agriculture, be regarded as customary? And finally, what are the economically reasonable safety precautions which a farmer using GM crops must take to avoid them from contaminating neighbouring land? The new and very controversial § 36a GenTG now provides guidance for the application of § 906 BGB to cases of interference by GM crops by (1) establishing a standard for ‘substantial’ interference by GM crops; (2) defining what measures can reasonably be expected in order to avoid the disturbance of others; (3) clarifying the notion of a use of land according to regional custom; and, finally, (4) addressing the problem of multiple causes.

(b) ‘Substantial’ interference

- 40 Contamination of crops (farmland) with GMOs thus constitutes a ‘substantial’ interference within the meaning of § 906 BGB if, contrary to the intentions of the owner or authorised user of the neighbouring land, those crops may subsequently not be marketed at all,⁵⁴ may be marketed but only subject to labelling (‘genetically modified’) as prescribed by law,⁵⁵ or may not be marketed with a particular label (‘organic’) as previously intended by the owner and allowed on the basis of the chosen production method.⁵⁶ Any contamination with *non-approved* GMOs will thus always constitute a substantial interference with a neighbour’s crops/farmland since it renders these unmarketable. If crops/farmland are contaminated with *approved* GMOs (which leaves them affected but still potentially marketable), thresholds contained in specific legislation – but not, currently, in the GenTG, itself – will be directly applicable under § 906 BGB in order to determine the extent of the interference.⁵⁷ The most important threshold is thereby established by Art. 12(2) of Regulation (EC) 1829/2003, which requires that food containing or consisting of GMOs

52 So-called *Unterlassungsanspruch*.

53 O. Jauernig, op cit note 47, § 906 no. 9. These general rules also apply to non-licensed GMOs (in addition to the special liability regime of the *Gentechnikgesetz*), see § 37(3) GenTG.

54 § 36a(1) no. 1 GenTG.

55 § 36a(1) no. 2 GenTG.

56 E.g., as ‘ecological’ within the meaning of EEC Council Directive 2092/91 of 24 June 1991 (see the explanatory memorandum of the amendment to the GenTG, BT-Drs 15/3088, p. 31). See § 36a(1) no. 3 GenTG. See also the standards required by the *Verordnung zur Durchführung gemeinschaftsrechtlicher Vorschriften über neuartige Lebensmittel und Lebensmittelzutaten* (NLV) of 29 February 2000.

57 BT-Drs 15/3088, p. 31.

or produced from or containing ingredients produced from GMOs be labelled unless it ‘contains, consists of or is produced from GMOs in a proportion no higher than 0.9 per cent of the food ingredients considered individually or food consisting of a single ingredient, provided that this presence is adventitious or technically unavoidable.’ Art. 24(2) of Regulation (EC) 1829/2003 establishes the same threshold for feed. Interferences which leave crops/farmland below these thresholds will not constitute a ‘substantial’ interference while higher percentages of contamination will provide a basis for an equitable compensation under § 906(2) BGB. It is, however, unclear at this point whether the 0.9 per cent threshold could also be invoked if a GM-free farmer were to show that his contractual agreements with particular food producers included more severe standards.

- 41 The Federal Ministry of Health is currently reviewing the possibility of including directly in § 36a GenTG a more precise and authoritative definition of what constitutes a ‘substantial’ interference.⁵⁸

(c) ‘Economically reasonable’ measures to prevent interference

- 42 The safety measures established by § 16b(2) and (3) GenTG (so-called *gute fachliche Praxis*) are declared ‘economically reasonable’ within the meaning of § 906(2) BGB and thus provide the standard of care for the user of GMOs.⁵⁹ The user of genetically modified plants is thus obliged to avoid as far as possible (the statute uses the term *vermeiden*) cross-fertilisation (both with other crops and the environment in general) by, e.g., the maintenance of a safety corridor between his crops and surrounding land, the selection of appropriate seed, the use of techniques to counteract the intrusion of alien plants onto his land, and the use of natural barriers. Both the use of GMOs (which includes fertilizer) and safety measures must be adequately documented.⁶⁰ In a similar vein, contamination of other products by GMOs must be prevented (here the statute uses the term *verhindern*) through the use of separate storage facilities and the adequate cleaning of such facilities or other equipment used in the production process.⁶¹ Finally, the user of GMOs must also prevent the contamination of other products in transit by, again, using separate transport facilities (e.g., trucks) and the adequate cleaning of such facilities.⁶² The person who markets GMOs (e.g., the seed producer)⁶³ must provide instructions on the handling of his product which aim to meet these safety standards and will give farmers some guidance on how to adhere to § 16b(2) and (3) GenTG.

⁵⁸ *Eckpunkte*-paper of June 2006.

⁵⁹ § 36a(2) GenTG.

⁶⁰ § 16b(3) no. 1 GenTG.

⁶¹ § 16b(3) no. 3 GenTG.

⁶² § 16b(3) no. 4 GenTG.

⁶³ § 16b(V) GenTG.

(d) 'Customary use' of land in a particular region

- 43 'Customary use' of land in a particular region is *not* to be defined with respect to the predominant use of either GMOs or traditional production methods.⁶⁴ This provision seeks to safeguard the initial use of GMOs in an area.

(e) Multiple causes

- 44 If it is not possible to identify as the true source, one of several neighbours of the affected land who could have individually caused the contamination in question, each neighbour will be deemed jointly and separately responsible for the *whole* interference⁶⁵ unless their respective contributions were limited and particular shares can be apportioned according to § 287 of the Code of Civil Procedure.⁶⁶
- 45 §§ 36a and 16b GenTG thus provide legislative clarification that GMOs are, in principle, capable of interfering with neighbouring property interests and subject to the regime established by § 906 BGB. The criteria for the application of the latter provision to GMOs, as set out by the GenTG, are thereby fairly strict and have led to much debate about the viability of farming GMOs in Germany. The safety measures established by § 16b GenTG are costly and cannot be avoided; even if they are met, equitable compensation will have to be paid for higher levels of contamination.
- 46 §§36a and 16b GenTG will equally affect delictual claims based on § 823(1) BGB by defining the standard of care which farmers using GMOs will have to comply with. If the threshold of a 'substantial' interference with neighbouring property is crossed (constituting an infringement), farmers will thus have to show that they have met the requirements of § 16b GenTG if they wish to escape tortious liability. Evidence that they have followed the instructions given by their own supplier of genetically modified seed may thereby not be sufficient, but could at least provide the basis for a subsequent contractual action if these instructions turn out to provide insufficient safeguards.⁶⁷

2. Causation*(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?*

- 47 See the answers given at nos 7 and 8 above.

64 § 36a(3) GenTG.

65 §§ 830(1) sent. 2, 840(1) BGB

66 § 36a(4) GenTG.

67 T. Dolde, Gesetz zur Neuordnung des Gentechnikrechts, Zeitschrift für Rechtspolitik 1/2005, 25 (27).

(b) *How is the burden of proof distributed?*

- 48 The normal rules of evidence apply. As far as a claim for equitable compensation on the basis of § 906(2) BGB is concerned, the owner or authorised user of the affected land will thus have to prove that a particular GM crop has indeed exerted substantial negative effects on his land (contamination) which exceed the limits of what he is obliged to accept by virtue of §36a GenTG. The owner of the GM crop can in turn try to defend himself by showing that the interference was still within the limits of what the owner of the affected land must accept without compensation on the basis of § 906(1) BGB. If this fails, he will also have to prove that he has met his duties to safeguard the surrounding environment from the effects of his crop according to the standards of §16b GenTG. A failure to do so will allow the owner of the affected property to demand the termination of any existing interference and, possibly, provide the grounds for an injunction if further interference is imminent (§ 1004 BGB). This can, e.g., become relevant if it is established that the GMO farmer failed to apply proper segregation measures. Compensation for damage caused to the crops/farmland can then be claimed on the basis of tort law. For a claim based on § 823(1) BGB to succeed, the neighbour will, however, have to prove the infringement of his property through the owner of the GM crops, as well as fault, damage, and causation. But even if the owner of the GM crop succeeds in showing that he has observed the safety measures prescribed by §16b GenTG, he will have to pay equitable compensation for the detrimental effects caused to the neighbouring property. It is a claim for compensation which he cannot escape if the interference is indeed substantial.
- 49 As already explained above, *prima facie* evidence will often play an important role in cases of this kind. At least in the next few years (with GM crops not yet in wide use) and assuming (as the courts will do) the typical course of events, farmers relying on such methods will thus have great difficulty to avoid the payment of equitable compensation claimed on the basis of § 906(2) BGB if a particular GM crop is used in a certain area and neighbouring fields are in fact contaminated with plants or, in the event of cross-fertilisation, genes of this kind. They would have to provide concrete proof of a different cause to counter the assumption,⁶⁸ e.g., that the seed used by their neighbours was found to have been impure on previous occasions and that these impurities correspond to the type of GM crops they too, cultivate.
- 50 A further point already emphasised above is the requirement for public registration of any GMO-related activity.⁶⁹ This includes the use of licensed GM crops by farmers.⁷⁰ The register will reveal the specific type of crop, its modi-

68 BGH NJW 1978, 2032.

69 In accordance with Regulation 2001/18/EC.

70 § 16a(3) GenTG.

fied characteristics, and the exact location and size of the field;⁷¹ the name and contact details of the person cultivating the crop will be disclosed to anyone with a legitimate interest, which will include neighbours of a particular field who can show that their property was subject to an interference by GMOs.⁷² This information, which has to be submitted at least three months prior to the sowing the crop, will give affected neighbours sufficient facts by which to determine the origin of a detected contamination.

- 51 Finally, it should be noted that there is currently considerable discussion concerning the principles of good professional practice (*gute fachliche Praxis*) mentioned above. § 16b GenTG merely outlines very basic principles, which can be specified in more detail by ordinance.⁷³ This has, to date, not been done but the Federal Ministry of Health is at present drawing up plans for a more detailed set of guidelines. These could include, inter alia, a duty of farmers to inform their neighbours of any intention to raise GM crops; to make an attempt at harmonising his own choice of crops with those of neighbouring farmers in order to avoid, as far as this is possible, cross-fertilisation; to avoid, again as far as possible, contamination of other crops/farmland by the use of safety measures throughout the production process, and to keep detailed records of these measures. Specific guidelines for particular types of crops, e.g., corn, are also under discussion. Finally, it is envisaged that neighbouring farmers could deviate from particular standards by signing individual agreements.⁷⁴ Such principles of good professional practice would, if implemented, impact both on the standard of care required in dealing with GM crops and the burden of proof as far as fault under § 823(1) BGB is concerned.

(c) How are problems of multiple causes handled by the general regime?

- 52 Problems caused by multiple causes are addressed by § 36a(4) GenTG for claims based on § 906 (2) BGB. If, as indicated above, it is not possible to identify as the true source one of several neighbours of the affected land who could have individually caused the contamination in question due to the cultivation of the same GM crop in the area (alternative causation), each neighbour will be deemed jointly and separately responsible for the *whole* interference unless their respective contributions were in fact limited and particular shares can be apportioned according to § 287 of the Code of Civil Procedure. The same is true for delictual claims.⁷⁵ Liability is thereby not channelled; in particular, farmers will not be able to avoid the payment of compensation despite

71 § 16a(4) GenTG.

72 § 16a(5) GenTG.

73 § 16b(6) GenTG.

74 *Eckpunkte*-paper of June 2006.

75 §§ 830(1) sent. 2, 840(1) BGB

the fact that they have adhered to the safety measures recommended by the producer of their GM seed.

- 53 § 426(1) BGB determines that, in the absence of a specific rule, those liable will have to come up with an equal share of the required compensation. Internal recourse is possible on the basis of § 426(2) BGB if one of the parties liable comes up with the full amount.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 54 The German regime for damage caused by licensed GM crops currently comes very close to strict liability. As explained above, it is thereby driven by § 906 BGB, a provision which seeks to strike a balance between the protection of immovable property and the outside influence which such property is inevitably exposed to. The amendments to the GenTG, which clarify the conditions under which the influence by GMOs will have to be tolerated, thereby make it difficult to escape the payment of equitable compensation. Fault does not, as such, play a role here simply because property law either requires the owner of land to accept outside interference (if it is negligible) or grants equitable compensation (if such interference is substantial but nevertheless legal because it cannot be avoided by the other party through observance of economically reasonable measures). By cancelling out the requirement that the use of land be in accordance with regional custom (the dominance of traditional or ecological farming methods in a particular region can thus not be invoked to prevent the use of GM crops), GM-based agriculture is thus, on the face of it, always possible but comes at a high price. This is where the standard of care established by § 16b GenTG comes into play. A farmer who uses GM crops will have to comply with the comprehensive safety measures designed to prevent contamination of neighbouring crops/farmland. This will ensure that he can pursue his farming methods even if they involve negative effects for his neighbours. These he will be obliged to compensate equitably, but as long as he can show compliance with the good professional practice (*gute fachliche Praxis*) as defined by § 16b GenTG, he is safe from delictual claims. The general rules of tort law will, however, become applicable if the standard established by the *Gentechnikgesetz* are not met. Any failure will constitute fault in terms of § 276(1) BGB.⁷⁶ The normal rules of evidence (including prima facie evidence) again apply.
- 55 It may be worthwhile emphasising at this point a distinction made by § 16b GenTG between, on the one hand, the *raising* of GM crops and, on the other, the *transport* or *storage* of such crops. The first will require a farmer to avoid

⁷⁶ T. Dolde, op. cit. note 67, p. 27.

as far as possible the contamination of the environment, including neighbouring crops/farmland, by adhering to the safety procedures outlined above (e.g., adequate segregation measures). The second requires the farmer to actually prevent contamination, which could imply a harsher standard in practice.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

- 56 As explained above in Part I, German law does have a specific strict liability regime in place for damage caused by GMOs. This regime is, however, limited in its scope of application and does not cover the main issue addressed in this study, which is the conflict between farmers who use GM crops and those who continue to rely on traditional or ecological methods of agriculture. The latter can, however, invoke §§ 32 ff. GenTG if they suffer damage caused by research and development facilities (for details see the answer at nos 12 and 13 above).

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 57 The German approach to the compensation of damage caused by GM crops is, as explained above, very much driven by property law (nuisance). The general rules of tort law can come into play but most conflicts are likely to center on the payment of equitable compensation on the basis of § 906(2) BGB. It is thus a predominantly no-fault regime.

4. Damage and remedies

(a) How is damage defined and measured?

- 58 The definition and calculation of damages under the general rules of tort law are equivalent to those under the *Gentechnikgesetz* (see the answer at no. 18 above).

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 59 See the answer at no. 19 above.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

60 See the answer at no. 19 above.

(d) Which are the criteria for determining the amount of compensation in general?

61 See the answer at no. 18 above.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

62 There is no financial limit to liability under the general rules.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

63 At present there is no general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability. § 36 GenTG, which would offer a basis for the introduction of such an obligation for facilities in which dangerous GMOs are handled but which is currently dormant, does not apply to farmers of GM crops. Insurers have, moreover, indicated on several occasions that the current regime – based, in essence, on a no-fault system – would not be insurable in practice since contamination of neighbouring crops is regarded as inevitable in practice.⁷⁷

(g) Which procedures apply to obtain redress in such cases?

64 The general rules apply as special procedures for obtaining redress in these cases do not exist.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

65 General compensation schemes which might be applicable in these cases do not exist. A special fund was proposed in 2004 but has not yet been introduced (see the answers at nos 26-31 above).

⁷⁷ See the comments in the *Eckpunkte*-paper of the Federal Ministry of Health of June 2006; Gesamtverbandes der Deutschen Versicherungswirtschaft e.V., *Sind Risiken der Gentechnik durch Versicherung abzudecken?* (25 August 2004).

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 66 There are at present no specific rules which cover the considerable costs associated with sampling and testing of GMO presence in other products. Food producers are legally obliged to monitor their products at their own cost to ensure that these remain below the permitted thresholds for GM-free crops.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 67 Farmers will currently have to test their crops themselves and at their own cost. These are estimated at € 40 to € 200 per sample, depending on the type of analysis.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 68 Costs for sampling and testing are only recoverable if the tests prove actual GMO presence. In practice, these costs will form a part of the compensation claim.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 69 At present, special rules concerning cross-border cases do not exist.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 70 The general regime concerning cross-border cases in which GM crops raised by a farmer in Germany contaminate GM-free crops in another country would allow the victim to choose between the more favourable legal regime if the

claim is based on tort law.⁷⁸ The amount of compensation which can be enforced against a German national or company registered in Germany is, in any case, restricted to the amount which would be awarded under German law.⁷⁹ Claims based on property law (nuisance) would have to be based on the law applicable in the foreign jurisdiction (*lex rei sitae*).⁸⁰

78 BGH NJW 1964, 2012; BGH NJW 1981, 1606; A. Heldrich in *Palandt, Bürgerliches Gesetzbuch* (65th edn 2006), EGBGB 38 (IPR), no. 21.

79 § 38 *Einführungsgesetz zum Bürgerlichen Gesetzbuch* (EGBGB).

80 A. Heldrich, op. cit. note 78, no. 21.

10. GREECE

Eugenia Dacornia

I. General Introduction

- 1 Before answering the questions set out in the final questionnaire, we find it useful to make a small presentation of the legal frame regarding the protection of the environment in Greece. In 1986 the Parliament enacted the law-frame 1650/1986 „for the protection of the environment”. According to the said law any act or omission leading to the „pollution” or „contamination” or „degradation” of the environment and resulting in adverse secondary effects inasmuch to the environmental „goods” as to the human being constitutes an offence to the environment.
- 2 According to the definitions of Article 2, paragraphs 2-4 of 1.1650 of 1986, „pollution” is the presence of pollutants in the environment, meaning any sort of substances, noise, radiation or other forms of energy in such quantity, concentration or duration, that makes them capable of causing negative effects on health, living organisms and ecosystems or capable of material damage and generally capable of rendering the environment unsuitable for its desired uses. „Contamination” is a form of pollution characterised by the presence of pathogenic micro-organisms in the environment or of indicators suggesting the probable presence of such micro-organisms. Finally, „degradation” is the pollution or any other changes to the environment caused by human activity and capable of probable negative effects on ecological equilibrium, quality of life and health of inhabitants, historic and cultural heritage, and aesthetic values.
- 3 Apart from the penal and administrative sanctions provided in the above law, art. 29 deals with civil liability and defines that: „Whoever, physical person or legal entity, provokes pollution or other degradation to the environment, is liable to damages, unless he proves that the damage is due to an *act of God* or it was the result of a third party’s culpable act. The third party must have acted „on purpose.” As derived by art. 29, in order to establish liability, it suffices that there is an unlawful act or omission causing pollution or environmental degradation, damage and causation between the said act or omission and the damage. The defendant may assert the defences of act of God or the malicious act of a stranger, in order to be discharged of liability.
- 4 The objective of art. 29 is to protect persons and goods exposed to the risks, which installations and activities, possibly prejudicial to the environment, en-

tail. Therefore, art. 29 of l. 1650/1986 provides for a type of risk liability¹, but it has been severely criticized by scholars mainly on two grounds:

a) on the ground that it is too general, not differentiating in their consequences the minor polluting activities from the severe ones. The establishment of strict liability, without taking into consideration how dangerous the specific source is (which, as a rule, stands in conjunction with the economic size of the activity), renders the provision particularly insufficient against „small and medium-sized” offenders of the environment and, on the other hand, lenient against the source operators of increased potential danger to the environment.

b) on the ground that in the cases of sources of increased pollution, the introduction of the exemption of liability in case of an *act of God* etc. might prove non-equitable for the society that would sustain the damage².

- 5 For the abovementioned reasons the adoption of a strict liability clause is proposed, which will exclusively cover only the source of increased risk to the environment³. Also due to the above criticism scholars and jurisprudence tend to find the solution elsewhere when it comes to civil liability of sources of regular pollution or degradation to the environment, and in particular in the provisions of the Greek Civil Code of 1946 (hereinafter called GCC).
- 6 Reflecting a period when pollution of the environment was not a vital problem, the GCC did not include provisions specially devoted to the protection of the environment. Nevertheless, its provisions regarding :
 - the neighbour- law (arts. 1003 etc. of the GCC),
 - the protection of common things, such as the air and the sea, and of things of common use, such as big lakes, rivers etc., and
 - the protection of the personality (arts. 57-59 of the GCC)⁴,
 - all of them read in the light of the Greek Constitution of 1975, as revised in 2001, which in its art. 24 introduces an express right on the environment, prove to be an adequate ground for the solution of legal problems arising

1 *I. Karakostas*, Environmental Law (in Greek), 2nd ed., Athens- Komotini 2006, p. 518-519.

2 See *I. Karakostas* (*supra* fn. 1), pp. 515-518.

3 *I. Karakostas*, (*supra* fn. 1), pp. 589-592.

4 The claims provided for in case of an offence against the vital space and resulting from the infringement of the personality right (Article 57 GCC) are the following: a) claim for an injunction ordering the cessation of the activity, b) claim for an injunction to restrain future infringements, c) claim for damages, provided the specific requirements of the law of torts (Article 914 GCC) are fulfilled and d) claim for damages for emotional stress and strain (Article 59 GCC).

from the pollution of the environment, as it will be illustrated hereunder, when answering the questions.

- 7 The Greek Civil Courts, when deciding on cases involving environmental issues, have succeeded in giving satisfactory solutions by applying the above mentioned articles of the GCC and in particular the articles for the protection of the personality (arts. 57 ff. of the GCC)⁵. Environmental disputes are usually the object of petitions for interlocutory injunction for provisional and protective measures on the basis of the provisions for the protection of the personality. Individuals or legal entities resorting to civil courts usually aim at the prevention or the cessation of the environmental damage and less at the restitution of damages caused, as the latter in most cases are unable to be evaluated or even to be comprehended.
- 8 However, a violation of the right of use of a thing common to all or of a thing in public use, i.e. of an element of the living space, may establish tortious liability for the reparation of environmental damages according to Article 914 GCC, which stipulates that whoever wrongfully (i.e. intentionally or negligently) and unlawfully inflicts an injury to another, is bound to make reparation to the other for any damage thus caused. This reparation includes the reduction of the value of the existing estate of the injured party (positive damage, *damnum emergens*), as well as the loss of profit (*lucrum cessans*). That which can be expected as probable profit in the usual course of events or by reference to the special circumstances and particularly to the preparatory measures taken, shall be reckoned as loss of profit (Article 298 GCC)⁶. Regardless of the compensation for damages to property, the court may award reasonable, according to its judgement, pecuniary compensation, due to emo-

5 AP (in full bench) 7/1992 NoV (*Nomiko Vima*) 41 (1993), 63; AP1588/1999 PerDik (*Perivallon kai Dikaio*) 1/2000, 62 followed by a note of *A. Kalavros*; 286/1987, Ell Dni (*Elliniki Dikaiosini*) 29, 1365; Court of First Instance of Thessaloniki 10623/2003, Arm (*Armenopoulos*) NH', 423; Court of First Instance of Kalamata 109/2003 PerDik 2/2004, 217; Court of First Instance of Volos 2785/2003, PerDik 3/2003, 443; Court of First Instance of Mesologgi 77/2000, PerDik 4/2001, 575, followed by a note of *Eugenia Dacoronia*. Court of First Instance of Ioannina 471/1996, Per.Dik. 1/1997, 84, followed by a note of *Eugenia Dacoronia*; Court of First Instance of Serres 12/1994, NoV 42 (1994), 1032; Court of First Instance of Chalkida 336/1992, Ell Dni 33, 1513; Court of First Instance of Korinthos 301/1992 (not published); Court of First Instance of Nafplio 163/1991, NoV 39 (1991), 786; 1097/229/1989 Court of First Instance of Volos, NoV 38 (1990), 308; Court of First Instance of Naxos 58/1989 (not published); Court of First Instance of Thiva 80/1985, NoV 33 (1985), 1057; Athens Court of First Instance 702/1981, NoV 29 (1981), 1301; Court of First Instance of Edessa 93/1981, Ell Dni 22, 366; Court of First Instance of Kalamata 5/1974, Dni 1975, 125; Justice of the Peace of Tinos 19/1992, Arch N (*Archeio Nomologias*) 43, 640 and 30 /1991 (not published); Justice of the Peace of Chalkida 25/1986, 127/1986 and 238/1986, Ell Dni 28, 931, 1130 and 1472 respectively; Justice of the Peace of Ypati 14/1980, Ell Dni 21, 781.

6 For the notion of positive damage and loss of profit in Greek law see (in English) *M. Stathopoulos*, Contract Law in Hellas, Athens 1995, no. 305.

tional stress and strain for damages to goods such as life, health, physical integrity, freedom, honour, etc).

- 9 Compensation, in principle, is paid in money (Article 297, sub-para. 1 GCC). Provision, however, is made, by way of exception, for the possibility of its payment *in natura*. Thus, sub-para. 2 of Article 297 GCC lays down that the court may, taking into consideration any special circumstances, order, in lieu of compensation in money, the restoration of the former state of affairs (*status quo ante*), if this is not contrary to the interests of the creditor. In the case of ecological damage, the provision of Article 297 GCC provides the legal basis so that the restitution *in natura* of the impaired element of the environment, to the extent that is possible, is achieved.
- 10 The enforcement of the provisions ensuing from Article 914 concerning environmental damages often collides with the inability of the damaged party to prove the wrongfulness of the damaging party on the one hand, and the causal relationship between the unlawful and culpable behaviour and the environmental damage on the other hand. Nevertheless, an effort is being made to deal with the difficulty of the damaged party to prove the culpability of the damaging party and the contribution of the causative link *through the development of care and safety obligations of those operators representing a source of danger for the environment, in conjunction with the reversal of the burden of proof of the causative link on the basis of the theory of spheres of influence*.
- 11 Furthermore, l. 2251/1994 on the protection of the consumer⁷, which incorporated the directive 85/374/EC, can be applicable to cases concerning environmental damage⁸. According to art. 6 § 1 of l. 2251/1994, the producer is liable for any damage caused by a defect in his product. The injured party is required to prove the damage, the defect and the causal relationship between the defect and the damage. Fault is not a precondition of the liability established by art. 6 of l. 2251/1994.
- 12 The goods which fall under the protective scope of the law may be either material or elements of the personality, which means that liability based on the said law can be well established in case of environmental damage⁹.
- 13 In comparison with l. 1650/1986 and art. 914 GCC, the legal basis of l. 2251/1994 presents the following advantages¹⁰:

⁷ For an analysis of the said law see *I. Karakostas*, The producer's liability for defective products, Athens-Komotini 1995; *the same* (with the collaboration of *D. Tzouganatos*), Consumer protection (l. 2251/1994), Athens-Komotini 1997.

⁸ *I. Karakostas* (*supra* fn. 1), p. 544 *et seq.*

⁹ See *I. Karakostas* (*supra* fn. 1), p. 549.

i) Art. 6 §§ 2a, 3, 4, gives a broad definition of the producer, which includes all persons involved in the production and distribution process, i.e. the producers of the finished product, the producers of a component part or raw material, the importers, the suppliers, the persons who present themselves as producers by affixing their name, trade mark or other distinguishing feature or who supply a product the producer of which cannot be identified. Due to the broad conception of the producer, the person liable can be in almost every case determined. Therefore, while in regard to environmental cases it is not easy as a rule to impute the damage to someone, the application of l. 2251/1994 facilitates significantly the determination of the person liable for reparations.

ii) Art. 6 introduces strict liability, regardless of fault and illegality. The plaintiff must merely invoke and prove the defectiveness of the product, which resulted in the provocation of the damage. However, the *state of the art* defense is explicitly given to the producer of a defective product, in order to be freed from any liability (art. 6 § 8 of the l. 2251/1994).

iii) Art. 8 provides for the reverse of the burden of proof on the provider of services, which also extends to cases of damages to environmental elements¹¹.

14 Finally, it has to be mentioned that apart from the frame-law for the protection of the environment (l. 1650/1986), civil liability covering particular risks is also provided by important special laws, such as :

a) Law 314/1976 and l. 1638/1986, ratifying respectively the 1969 Brussels International Convention on Civil Liability for Oil Pollution Damage and its supplementary International Brussels Convention of 1971 on the Establishment of an International Fund for Compensation for Oil Pollution Damage.

b) Law decree 336/1969, which ratifies the 1960 Paris Convention on Civil Liability in the Nuclear Energy Sector and the attached protocol, as in force today after the l.1758/1988 on Civil Liability in the Nuclear Energy Sector.

c) Law 743/1977 on the protection of marine environment, l. 1147/1981 ratifying the 1972 London International Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter and l. 855/1978 ratifying the 1976 Barcelona International Convention for the Protection of the Mediterranean Sea against Pollution.

¹⁰ I. Karakostas (*supra* fn. 1), p. 550.

¹¹ I. Karakostas, (*supra* fn. 1), p. 554, 555.

II. Special Liability or Compensation Regimes

1. Introduction

- 15 In Greece there is no special liability regime which exclusively or specifically addresses the liability of GMOs. The Cartagena Protocol of 2000 on Biosafety to the Convention on Biological Diversity, which has been ratified with the L. 3233/18.2.2004, though it is the first international text of obligatory character which recognizes the precautionary principle, does not include any provision regarding civil liability in cases where, due to the release of GMOs, injury of human health (death or severe offenses), severe impairment of the environment or serious economic damage of the producers of conventional cultivations has taken place¹².
- 16 It has been mentioned¹³ that trying to fill this lacuna with the provisions of the traditional law regulating civil liability poses problems. This is due on the one hand to the uncertainty and the unpredictability of the risks that are inherent in GMOs, on the other to the fact that the special provisions on liability for defective products can only apply to those GMOs that address to food or feed and not to those that are going to be released into the environment (e.g. to the cultivation). The reason for the non application of these provisions in this latter case is that when GMOs are going to be released into the environment what is dealt with is the process, the whole way of their production and not the products themselves¹⁴. It has been proposed also in Greece¹⁵ that the provisions of the International Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, which was signed in Lugano on the 22nd of June 1993 during the Meeting of the Ministers of Justice are the most appropriate to deal with the civil liability related to the GMOs of this particular category. This is due to the fact that with this convention genuine objective liability is introduced for the activity operator responsible for the activity which is dangerous to the environment.

12 About the Cartagena Protocol see *G. Balias*, The Cartagena Protocol on the Prevention of Biotechnological Risks. A Change of Example in the International Law of Environment, *Nomos kai Physsi* (= Law and Nature) 2000, pp. 27 *et seq.*; *the same*, The Precautionary Principle in International, EU and National Law, Athens 2005, pp. 188 *et seq.* For the application of the precautionary principle in Greek Public Law in general see *Sp. Flogaitis/Chr. Pétrou*, Les avancés du principe de précaution en droit public grec, *RHDI* 59 (2006), pp. 449-470.

13 *G. Balias*, *Nomos kai Physsi* 2000, p. 47.

14 *M. – A. Hermitte/Ch. Noiville*, La dissémination volontaire d'organismes génétiquement modifiés dans l'environnement. Une première application du principe de prudence, *Révue Juridique de l'Environnement*, 3-1993, p. 392; *G. Balias*, *Nomos kai Physsi* 2000, p. 48. *Ev. Raftopoulos*, The polluter pays principle and agriculture in Greece (in English), *RHDI* 59 (2006), p. 284.

15 *G. Balias*, *supra*.

- 17 The Lugano Convention has not been ratified by many countries and there are no plans for its ratification in the immediate future, which means that its provisions are not immediately applicable. Nevertheless, it can be the basis for the regulation of the liability relating to GMOs, not without some modifications, however, regarding the possibility or not of discharge of liability¹⁶. According to the Convention the activity operator is discharged of liability if he can prove that the damage:

i) is due to *force majeure*;

ii) was caused by an act of a third party with the intent to cause damage, despite safety measures necessary and appropriate to the type of the dangerous activity in question having been taken;

iii) was caused though there was compliance to the orders and measure imposed by the public authority;

iv) was caused by pollution at tolerable levels under usual local circumstances; or was caused by a dangerous activity attempted in the interests of the person who suffered the damage, provided that it was reasonable towards this person to expose him to the risks of the dangerous activity.

- 18 The modifications needed, due to the particularity of the GMOs, will have eventually to do with the non acceptance of the discharge of liability :

a) when the scientific and technical knowledge of the time when the offence took place was not adequate to show the dangerousness of a substance or an organism („development risks”). The precautionary principle, which must dominate the solutions to be adopted, dictates that civil liability for GMOs should not be excluded when at the time of the offence there was scientific uncertainty for the dangerousness of a substance or an organism. If, in the public scientific discussion, the existence of the dangerousness of the GMOs has been expressed even as a minority view, the operator of an activity related to the said GMOs should be held liable for the offences caused to the environment or to the health of human beings from the release of the GMOs.

b) on the basis of the argument of „the interest of the person who sustained the damage from its exposure to the risk”. Civil liability for GMOs cannot be excluded either, when the interest of the person who sustained the damage lead him to the exposure to the risk. Exemption of liability in such a case would be inequitable for the victims, as the uncertainty for the GMOs is too big and, as a consequence, it is almost impossible for the victim to evaluate

¹⁶ G. Balias, *Nomos kai Physsi* 2000, p. 48, 49, who has adopted the arguments of G. Martin, *La nécessité d' un „bricolage juridique” en matière de responsabilité*, in V. Le Roy (ed.), *Les dossiers de l' environnement de l' INRA*, Paris 1996, pp. 33, 34.

their dangerousness; the interest of the person as a reason for the exemption of liability can only then be accepted when there is obligatory information about the risks to which the person is exposed, which is not the case in GMOs.

- 19 Concluding the above, a system of absolute liability, i.e. strict without the possibility of defences for the eventual damage caused to the conventional or biological (organic) cultivations by the GMOs cultivations is being proposed in Greece by four University Professors of different disciplines (Medicine, Biochemistry and Biotechnology, Agriculture and Law) and by a lawyer specialising in Environmental Law, author of various books and articles.¹⁷ The Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage may help to this direction.
- 20 The Greek jurisprudence has not dealt yet with issues relating to GMOs, but we are of the opinion that if a case concerning GMOs was to be brought before the Greek Courts, the latter would decide after taking into consideration the precautionary principle, as a big majority of them have done in several cases dealing with the risk of exposure to electromagnetic radiation, emitted by mobile telephony base stations¹⁸. For example in the injunction order 4531/2004 of the First Instance Court of Athens¹⁹, the plaintiffs living in the area of „Stathmos Larisis”, which is one of the most densely populated areas of Athens, in their petition asked for an injunction order for an immediate removal of the mobile telephony base stations. They stated that they were suffering feelings of fear, worry and mental distress for the consequences the daily exposure to electromagnetic radiation, emitted by the mobile telephony base stations in question would have on their mental health and their environment, since, apart from their homes, antennas were also located in the vicinity of the base stations, at schools and colleges of their children.

17 See *T. Kourakis, D. Kouretas, L. Louloudis, A. Manitakis and G. Balias* in an article published in the daily newspaper „Kathimerini” on the 30.01.2005.

18 One member Court of First Instance of Thessaloniki 13776/2002 PerDik 2002, 360 (followed by a note of *Maria Kotzaivazoglou*); 16242/2003 Arm 2005, 1202; 9069/2005 published at the data basis NOMOS; 10165/2005 (not published); 10252/2005 (not published); 17599/2005 (not published); multimember Court of First Instance of Thessaloniki 26223/2005 PerDik 4/2005, 614 (followed by a note of *Ap. Simis*); one member Court of First Instance of Larissa 3867/2005, Dikografia (=Brief) 2005, 557. The decisions of the one member Court of First Instance of Patras 1558/1998 PerDik 2/2001, 247; 3421/2000 PerDik 1/2001, 88, of the one member Court of First Instance of Herakleion 802/2003 NoV 2003, 1458 and the decision of the Court of Appeal of Patras 182/2001 PerDik 2/2001, 249 (followed by a note of *T. Nikolopoulos*) were the first decisions, not explicitly mentioning the precautionary principle, but actually implying it, as they founded their judgment on the probability of risks to the human health from the electromagnetic radiation.

19 Arm 2005, 467.

- 21 The defendants alleged that the petition should be rejected as non substantiated, due to its vagueness, since there is no scientific certainty that there is a specific case of health damage by mobile telephony antenna emissions. They also alleged that there has been no medical or other expert opinion called upon, which correlated illness with the operation of the mobile telephony base stations.
- 22 The Court, however, accepted that according to the precautionary principle, based upon the possible oncoming of harmful consequences for the health and accordingly for the environment, only indications are sufficient; complete proof of the causative link between the mobile telephony antenna operations and a specific disease by its operation was not necessary. The Court held that, according to Community case law, the existence of substantial scientific evidence in terms of the actual possible adverse health effects, in the case of oncoming danger was not necessary. Consequently, it decided that the petition was of actual substance and ordered the removal of the mobile telephony base station antennas from the specific spaces.
- 23 There are courts, however, that considered that only indications are not sufficient and have rejected the relevant injunctions²⁰. Arguments and counter-arguments have been exposed abundantly in all cases relating to electromagnetic radiation emanating from mobile phone base stations and we believe they will be the same in the not so remote future, when cases relating to GMOs reach the Courts.
- 24 For the time being in Greece the relevant matters are dealt under Law 1650/1986 on the protection of the environment, given that both art. 17 of the Joint Ministerial Decision H.II.:11642/1943/2002²¹ (issued in implementation of Council Directive 98/81/EC, which modified Council Directive 90/219/EC on terms and conditions for the contained use of genetically modified micro-organisms, and of Council Directive 2001/204/EC) as well as art. 33 of the Joint Ministerial Decision 38639/2017/2005²² (which implemented Directive 2001/18/EC on the deliberate release into the environment of genetically modified micro-organisms)²³ include a provision stating that the civil sanctions provided by art. 29 of the l. 1650/1986 are imposed on any person who, by acting or omitting to act, violates the provisions of the said Ministerial De-

20 Court of Appeal of Patras 169/2002 NoV 51, 66 followed by a note of *T. Nikolopoulos*; one member Court of First Instance of Athens 14316/1995 PerDik 2/1997, 230; one member Court of First Instance of Patras 2260/1998 PerDik 2/2001, 248; one member Court of First Instance of Trikala 420/1998 PerDik 1999, 577.

21 Government Gazette (=FEK) Issue B' 831/2002.

22 FEK Issue B' 1334 /2005.

23 For the implementation and application of the GMOs Community rules in the Greek legal order see *Ath. Takis*, The legal status of GMOs in the European Union and elements of the adaptation of the Greek law, *Arm* 60 (2006), pp. 1552-1556.

cisions²⁴. Therefore, the questions of the first part of the questionnaire will be answered according to the provisions of the law 1650/1986.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 25 Generally speaking, the establishment of risk liability in Greece requires that a causal link exists between the source of risk and the damage, which is examined under the theory of adequate causation. According to the said theory, there is a causal relation between an act and an effect when the former is an ‘adequate cause’ of the latter, i.e. when the act had the tendency, the capability of leading to the damage in accordance with the normal course of events and common experience. Damage which has been caused by an unforeseen, chance or extraordinary circumstance or which is due to the peculiarity of the specific case and not to the general trend of the condition is not regarded as being linked in an adequate way with it²⁵.
- 26 The protective aim of the rule of law is also crucial for establishing liability²⁶. The said theory examines what interests and to what extent the rule of law seeks to protect in order to determine the extent of the protection. This examination will reveal whether the interests which have been prejudiced directly or indirectly fall within those which it was the law’s purpose to protect and whether, consequently, its infringement gives rise to liability for damage caused by this injury. It is all a matter of how far the range of the rule of law which has been infringed extends²⁷.
- 27 It has been suggested²⁸ that in cases of risk liability, such being environmental liability also, a further restriction is required according to the specific aim of the rule of law on which the liability is grounded. The reason which justifies the establishment of risk liability is the possession of a source of risk, from

24 Also art. 12 of the Joint Ministerial Decision 95267/1893/1995, which implemented Council Directive 90/219/EC as amended by Council Directive 94/51/EC (FEK Issue B’ 1030/1995), subsequently replaced and abolished by art. 21 of, the Joint Ministerial Decision H.Π.: 11642/1943/2002, contained a similar provision. The Joint Ministerial Decision 278787/2005 on Necessary Complementary Measures for the Implementation of Regulations 1829/2003/EC and 1830/2003/EC of the European Parliament and the European Council (FEK Issue B’ 998/2005), however, includes only penal and administrative sanctions.

25 *M. Stathopoulos*, no. 311.

26 *I. Karakostas* (*supra* fn. 1), pp. 522-523; *P. Filios*, *Law of Obligations, General Part*, 2nd ed., 1996, § 93.

27 *M. Stathopoulos*, no. 312.

28 *I. Karakostas* (*supra* fn. 1), p. 523; *P. Filios*, (*supra* fn.26).

which benefits can be drawn for the possessor. Consequently, liability should be imposed only if those risks which drove the legislator to establish increased liability are effectuated, i.e. only the typical risks which are linked with the specific source. Accordingly, the damage must be the result of the effectuation of the typical risks which are connected with the possession and operation of a source of risk.

- 28 No particular criteria however with respect to GMOs have been established in Greece yet.
- 29 There are no rules allocating the costs of testing or of other means to establish causation.

(b) How is the burden of proof distributed?

- 30 According to the general rules of the Greek Code of Civil Procedure (GCCP) the burden of proof lies with the plaintiff: the plaintiff is burdened with proving the elements of the rule of law he invokes. Causation is one of the preconditions required for the application of art. 29 of l. 1650/1986, which normally should be proved by the plaintiff. Therefore, if the GCCP was to be applied, the plaintiff should have to prove that the damage he sustained is the consequence of the presence of GMOs. As such a proof is difficult in cases of environmental damage, a reverse of the burden of proof is possible by adopting the position of the doctrine according to which cases of ecological harm must be treated in the same way as cases of products liability to what concerns the burden of proof.²⁹
- 31 The different sources of adventitious presence of GMOs are not being taken into account.

(c) How are problems of multiple causes handled by the regime?

- 32 L. 1650/1986 has no special provision on multiple causes. The general rules of the GCC apply and in particular arts. 926 and 927 thereof, for which see in detail hereinafter the answer to the correspondent question under the general liability scheme.

²⁹ For an analysis of this position see hereinafter the answer to the correspondent question under the general liability scheme, where also the distribution of the burden of proof in cases of GMOs is dealt with.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 33 The liability regime of l. 1650/1986 is strict. The only defences available to the actor are, as provided by art. 29, acts of God and third parties' malicious acts. The burden of proof lies on the polluter. If he cannot prove that the damage is either due to an act of God or the result of a third party's culpable act, he will be liable to damages, even if fault cannot be established.
- 34 Furthermore, it must be noted that it is accepted that art. 300 GCC on the concurrent fault of the person who sustained the damage is also applicable to cases which fall under l. 1650/1986. Accordingly, when the plaintiff has contributed to the damage or to its extent, it is possible that the liability of the defendant is diminished or even excluded³⁰.
- 35 It is also worth mentioning that liability may not be excluded even if the defendant has acted in conformity with the above mentioned Ministerial decisions H.Π.:11642/1943/2002 and 38639/2017/2005, which provide for the terms and conditions for the use and release of the genetically modified micro-organisms. This is owing to the legal nature of the polluter's liability as risk liability, for which illegality is not a precondition³¹.

(c) If it is no liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 36 The Greek legislator has not established any particular criteria for any kind of production.
- (e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?*
- 37 The liability regime based on l. 1650/1986 is not exclusive. Damage caused by the presence of GMOs may give rise to liability not only according to l. 1650/1986, but also according to the general tort law (art. 914 GCC),

³⁰ I. Karakostas (*supra* fn. 1), p. 523-525.

³¹ I. Karakostas (*supra* fn. 1), p. 524.

neighbour law (art. 1003 *et seq.* GCC) and l. 2251/1994 on the protection of the consumer³².

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

- 38 Damage, according to art. 29 of l. 1650/1986, is not understood merely as the pollution or degradation of the environment as such; it is further required that damage is provoked against a legally protected good or interest of the plaintiff due to the environmental pollution or degradation³³ (e.g. devaluation of products).

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 39 An answer to this question is given hereinafter under the general liability scheme.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 40 Same as above under (b).

(d) Which are the criteria for determining the amount of compensation?

- 41 Articles 297 *et seq.* GCC apply for the calculation of damages. Therefore, damage includes both the positive damage, i.e. the reduction of the existing estate of the injured party, and the negative damage (or lost profits) as well, i.e. the prevention to increase his assets. Lost profit, however, is only restituted if it could be expected as probable profit in the usual course of events or by reference to the special circumstances and particularly to the preparatory measures taken (art. 298 sent. 2 GCC). Given that it is highly likely that the GMO admixture may initially remain undetected and the consequences of the use of GMOs may come about in the future, it is accepted that future and indirect damage is also compensated for according to art. 29 of l. 1650/1986³⁴.
- 42 Economic damage also includes money spent on diminishing damage by the person who sustained it³⁵.

32 I. Karakostas (*supra* fn. 1), p. 529-530.

33 I. Karakostas (*supra* fn. 1), p. 521.

34 See I. Karakostas (*supra* fn. 1), p. 522.

35 I. Karakostas (*supra* fn. 1), p. 521.

(e) Is there a financial limit to liability?

- 43 Art. 29 does not pose a financial limit to liability; accordingly, all damage is covered by the compensation.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 44 There are no special regulations for GMOs. Answers to these questions are given hereinafter under the general liability scheme.

(g) Which procedures apply to obtain redress?

- 45 Same as above under (f).

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 46 Same as above under (f).

5. Compensation funds

- 47 No compensation funds have been set up or planned yet.

6. Comparison to other specific liability or compensation regimes

- 48 As already mentioned, there is no specific liability or compensation regime for GMOs in Greece. According to the existing legal frame the relevant matters are dealt with under art. 29 of l. 1650/1986 on environmental liability.

III. General Liability or other Compensation Schemes

1. Introduction

- 49 As already mentioned, bases that may be used to raise actionable claims in the area of civil law are also provided by:

- a) tort law (art. 914 *et seq.* GCC),
- b) neighbourhood law (arts. 1003 *et seq.* GCC) and,
- c) l. 2251/1994 on the protection of the consumer.

- 50 In regard to tortious liability, art. 914 GCC provides that ‘a person who unlawfully and through his fault has caused prejudice to another shall be liable for compensation’. This provision, one of the most fundamental in the GCC, stipulates one of the broadest sources of obligations, the act or omission which is unlawful and due to fault, the civil delict, which on the fulfilment of the other conditions of the provision, i.e. prejudice (injury, detriment, damage) and causal relation between this act and the prejudice, creates an obligation to compensate on the party responsible³⁶. When analysing the elements of art. 914 GCC, particularly in regard to environmental issues and the presence of GMOs in non GM-crops, the following remarks must be made:

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 51 An answer to this question is given hereinabove under the special liability regime.

(b) How is the burden of proof distributed?

- 52 In order to establish tortious liability according to art. 914 GCC, the plaintiff must prove the causal link between the tortfeasor’s culpable and illegal act and the sustained damage. In regard to environmental matters, however, this proof is difficult, because either the damage may be the result of the behaviour of various persons or it cannot be proved to which extent and to which degree the tortfeasor’s behaviour has contributed to the result or even because a relatively long period of time may have elapsed between the tortfeasor’s behaviour and the environmental damage³⁷. Therefore the reverse of the burden of proof according to the „principle of the origin of risks” or „principle of the fields of influence” and by applying, *by analogy*, art. 925 of the GCC is indicated not only for the proof of culpability³⁸ but also for the proof of the causation link. In order to get damages, the plaintiff has to prove that he has sustained damage as well as that the cause of the damage derives from the circle of the defendant’s (here the releaser of GMOs) activities, that means that the plaintiff has to prove a „minimum causality”³⁹.

³⁶M. Stathopoulos, no. 39.

³⁷I. Karakostas,, (*supra* fn. 1), p. 482 with references to French and German literature.

³⁸For which see hereinafter the answer to the correspondent question under the general liability scheme.

³⁹In cases of the so called „industrial illnesses” the proof of the „industrial provenance” of the illnesses is a „minimum causality” necessary for the establishment of a claim for damages. See I. Karakostas, (*supra* fn. 1), p. 483.

- 53 In order to avoid liability, the defendant, in cases of environmental liability, has to prove that the cause of the damage lies out of the field of his responsibility or danger, that he has taken all measures of care and providence imposed by the general principles of the law and, therefore, no causation link exists between the damage and his activity. However, a differentiation must be made for the releaser of GMOs. The latter, according to the aforementioned should not be given the said defense. Due to the uncertainty of whether there is a risk from the release of GMOs, and because such uncertainty should work in favour of health and environment, the causation link should be established and the releaser should be held liable even if he has taken all measures of care and providence imposed by the general principles of the law.
- 54 The difficulty, sometimes impossibility, in proving culpability and the causation link is due to the difficulty of entering into the fields of the source of the environmental risk and of finding out the mechanisms of their operation and liability or even to the eventual destruction of the substance or the elements that were the cause of the environmental degradation. Therefore, in cases of environmental liability, the principle of „*prima facie* proof”, already applied by the German jurisprudence⁴⁰, should be also adopted by the Greek courts.⁴¹ The „*prima facie* proof” principle is based on estimate of probabilities, according to which, a conclusion is made regarding the causation link from facts that present, as a rule, a usual course and are provoked from a fully proven cause (emission of polluting waste in the atmosphere, on the earth or in the water), according to the certain conclusions of the science, to the deductions of common experience and of logic. The other way round, from a (fully) proven particular result (environmental accident) it is deduced that the environmental conditions of care and providence have been violated.
- 55 When applying the „*prima facie* proof” principle in cases of environmental liability the judge must be fully convinced of the causation link or the violation of the environmental condition. His conviction will be based on the certain conclusions of the science and on the deductions of common experience and of logic that lead to a certain deduction according to the usual course of things (indirect proof)⁴². A differentiation must be made for the releaser of GMOs also to this point. The judge need not be fully convinced of the causation link. According to the precautionary principle, which should apply here, only indications should be sufficient. Complete proof of the causative link between the release of the GMOs and the specific disease by its release should not be necessary, or, in other words, according to Community case law, the

40 See relatively *P. Gottwald*, *Shadenzurechnung und Shadensschaetzung*, 1979, pp.197 ff.; *P. Kargados*, *Zur Beweislast bei der Haftung fuer Umweltschaeden*, FS.G. Baumgaertel, 1990, , pp.191 ff.; *Th. Lytras*, *Zivilrechtliche Haftung fuer Umweltschaeden*, pp. 360 ff.

41 Greek jurisprudence applies the principle of „*prima facie* proof” to cases of producer’s liability.

42 *I. Karakostas*, (*supra* fn. 1), pp. 484, 485.

existence of substantial scientific evidence in terms of the actual possible adverse health effects should not be required.

(c) *How are problems of multiple causes handled by the general regime?*

- 56 With regard to the matter of multiple causes, art. 926 GCC establishes joint and several liability on the following occasions:
- 57 1) when the damage is caused by the multiple tortfeasors' collective act (art. 926 GCC sent. 1 subpara. a) The term „collective act” is interpreted widely as to include any kind of causal collaboration or participation in the perpetration of the tort and the provocation of the damage, irrespectively of whether the acts of the multiple tortfeasors occurred simultaneously, successively or in parallel with the other⁴³; therefore it includes:
- a) Complicity by means of co-deciding and co-executing the tort, i.e. cases where several persons act jointly and each one of them fulfills the requirements of tortious liability.⁴⁴
 - b) The acts of the „instigator”, of the „direct accessory” and of the „simple accessory”⁴⁵ of the tortfeasor. Intention is not a prerequisite; negligence suffices for the application of art. 926 GCC.⁴⁶
 - c) Cases of several persons committing the tort by acting independently and individually and without any conscious cooperation (lateral abettors).⁴⁷
 - d) Cases where none of the multiple tortfeasors' acts alone could have provoked the damage (necessary causality, *notwendig koinzidierende Kausalität*).⁴⁸

43 *Ap. Georgiades*, in: *Ap. Georgiades/M. Stathopoulos* (eds.), *Civil Code, 1982*, art. 926 no. 5; *I. Deliyannis – P. Kornilakis*, *Law of Obligations-Special Part, 1992*, Vol. III, p. 218.

44 According to the prevailing view in theory (*Ap. Georgiades*, art. 926 no. 6; *I. Deliyannis – P. Kornilakis*, *supra*) the term „collective act” in art. 926 GCC is not restricted to intentional complicity but it includes the so-called „negligent complicity” as well. *Contra P. Filios*, *Law of Obligations – Special Part, 4th ed.*, 1998, Vol. II/2, p. 92, who adheres to the doctrine of the penal law, which requires intention.

45 A definition of the terms „instigator”, „direct accessory” and „simple accessory” is found in arts. 46a, 46b and 47 of the Greek Penal Code (GPC), which defines the „instigator” as the person who has brought about the tortfeasor's decision to commit the tort, the „direct accessory” as the person who assisted the actor directly in and during the commission of the tort and the „simple accessory” as the person who helped the tortfeasor in any way before or during the commission of the tort.

46 *Ap. Georgiades*, art. 926 no. 7; *I. Deliyannis -P. Kornilakis*, pp. 218-219.

47 See respectively *Ap. Georgiades*, art. 926 no. 8; *I. Deliyannis -P. Kornilakis*, p. 219.

- e) Cases where damage is caused by the simultaneous acts of multiple tortfeasors, each of which in itself would have been sufficient to cause the victim's loss (cumulative causation).
- f) Cases of posterior complicity: Art. 926 GCC applies by analogy when an act – though not causally connected with the provocation of the damage – maintains and/or worsens the damage already caused.⁴⁹
- 58 2) When multiple persons are held liable in parallel (art. 926 sent. 1 subpara. b GCC), e.g. the employee of an industrial company causes environmental damage by acting illegally and out of fault; in such a case both the employee and the company are held liable (art. 926 sent. 1 GCC read with arts. 914, 922 GCC).⁵⁰
- 59 3) When more than one person acted either simultaneously or successively and it is impossible to determine whose action caused the damage (art. 926 sent. 2 GCC).
- 60 In particular, according to art. 926 sent. 2 GCC, each one of the several potential tortfeasors is held jointly and severally liable for the damage, if it cannot be ascertained whose action caused the damage or to what extent a particular action contributed to the damage.
- 61 Moreover, art. 927 GCC provides for the relations between the multiple tortfeasors *inter se*. It dictates that if one of them totally compensates the person suffering the damage, he is given the right of recourse against the rest of them. In such a case the liability among the multiple tortfeasors is determined by the court, depending on each one's contribution to the fault and if such a contribution cannot be ascertained, the damage is equally distributed among them.

48 *Ap. Georgiades*, art. 926 no. 9. E.g. A1's factory emits harmless chemical waste and so does A2's factory. However, when these harmless chemical wastes are fused, they produce – by a chemical reaction – a poisonous substance which contaminates the river and results to fish kill. A1 and A2 are held jointly and severally liable according to art. 926 GCC, because the damage was caused by their „collective act” (wide interpretation of the term). However, it has been maintained that these cases fall under art. 926 sent. a subpar. b concerning liability in parallel (see respectively *M. Karasis*, Joint and several debt, 1990, p. 279 fn. 87a and p. 282; *P. Filios*, *supra* fn. 44, p. 93). It must be noted, however, that the discord between the scholars is strictly theoretical, because regardless of where the cases of *notwendig koinzidierende Kausalität* are placed – i.e. either in art. 926 sent. a subpar. a GCC concerning collective act or in art. 926 sent. a subpar. b GCC concerning liability in parallel – the actors are in any case held jointly and severally liable.

49 *Ap. Georgiades*, art. 926 no. 12; *I. Deliyannis -P. Kornilakis*, p. 220.

50 *Ap. Georgiades*, art. 926, no. 16.

3. Standard of liability

(a) *In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?*

- 62 The general rule of art. 914 GCC bases the liability on the subjective condition of fault (fault based liability). Therefore, the tortfeasor is held liable only if he acted out of intention or negligence. It is being accepted, however, in theory⁵¹ that cases of ecological harm must be treated in the same way as cases of products liability⁵² to what concerns *the burden of proof*. The owner or possessor of a source of risk, exactly as the producer of a defective product, should be held liable for the damage caused, unless he proves that he is not responsible (*hybrid strict liability*). And this because in both cases the plaintiff (the consumer or the person who sustained the ecological harm) cannot throw light on the facts that have led to his damage. Such facts are found in the area of risks of the defendant (producer or owner or possessor of a source of risk) and the latter, who has a general duty of care and providence⁵³, arising from the requirement of good faith taking into consideration business usages (arts. 200, 281 and 288 of the GCC), has to prove the absence of fault on his part in order to avoid responsibility („principle of the origin of risks” or „principle of the fields of influence”)⁵⁴. This solution can be achieved in Greece by applying to the above cases, *by analogy*, art. 925 of the GCC that deals with the responsibility of the owner or possessor of a building or structure in case of damage caused by their total or partial collapse; the said persons are presumed to be responsible, unless they prove (reverse of the burden of proof) that the collapse is not due to a defective construction or to a faulty maintenance of the building or the structure.
- 63 To what concerns GMOs, the absence of scientific certainty of the risk should not be used by the releaser as a defence in order to avoid liability. To the contrary, the scientific uncertainty should create a presumption in favour of the health and the environment and the releaser of the GMOs should prove that there is no risk from their release.

51 See *I. Karakostas*, (*supra* fn. 1), p. 295.

52 For an analysis (in English) of the legal basis of the producer’s liability in Greece see *Eugenia Dacornia*, „Mass torts: a Greek approach, RHDI 47, pp. 89-91, with further references to the Greek literature.

53 For details relatively to this duty of the owner or possessor of a source of risk to take all measures of care and providence, a product of the German jurisprudence (called in German *Verkehrssicherungspflichten*), see in the Greek literature *I. Karakostas*, (*supra* fn. 1), p. 471 *et seq.*

54 Known in German as *Gefahrenbereich*, it is a product of the German theory and jurisprudence specially developed in the field of the producer’s liability and introduced lately in the tort liability for emissions. For references to the German literature see *I. Karakostas*, (*supra* fn. 1), p. 477 footnote 34.

64 Abiding by administrative provisions does not suffice for the exclusion of fault and, therefore, for the exoneration from liability⁵⁵. It is accepted that the bearer of a possible source of risk for the environment must take all measures of precaution and safety required and not only the ones that are specifically prescribed by administrative provisions. The latter merely define the minimum standards to which the said bearer must comply and, therefore, compliance to them does not result in exoneration from liability⁵⁶.

65 If the polluter has acted in conformity to the law and has also taken all measures of providence and care, then he is not liable for any damage which may occur⁵⁷. In cases of release of GMOs, however, if the releaser has acted in conformity to the Ministerial Decisions on GMOs, he must be held liable for any damage, which may occur even if he has taken all measures of providence and care due to the uncertainty of the risk caused by the GMOs.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

66 Another basis that may be used to raise actionable claims because of the presence of GMOs in non-GM crops is founded in art. 1003 *et seq.* on the so-called neighbourhood law. According to art. 1003, which states that 'The owner of an immovable is bound to tolerate the emission of smoke, soot, exhalations, heat, noise, vibrations or other similar side effects originating from another immovable, provided that they do not substantially prejudice the use of his immovable or that they originate from a use which is ordinary in regard to the immovables of the region in which the offending immovable is situated', emissions which materially affect the use of land or emissions which are unusual for the area amount to an actionable nuisance.

55 See relatively AP (in full bench) 146/1960 Themis NA', 417' AP 343/1968 NoV 16, 943.

56 I. Karakostas (*supra* fn. 1), pp. 475-476.

57 It must be noted here however that we have suggested [*Eugenia Dacoronia*, Emissions and damage to the environment from the operation of an enterprise under licence from the competent authority (relation of arts. 1003, 914 of the GCC), PerDik 1997/1, pp. 22, 23] that in such a case, the damage must be covered for reasons of equity, by analogy of other provisions of the GCC (e.g. arts. 387, 675 § 2, 918 etc.), which give such a possibility (i.e. which recognise a claim for reasonable damages to the discretion of the Court, if this is dictated by good faith and equity, even if the activities that caused the damage are legal).

- 67 This article is interpreted in light of the Greek Constitution (arts. 5 §1, 17 and 24) in a way so as to be construed as meaning that emissions, albeit common and ordinary for the area, do not have to be tolerated by the neighbour if they contravene the constitutional principle of preserving a viable vital area and infringe his right to use his property⁵⁸. Also note that, as the emissions nowadays have the tendency to expand easily, the protection given by arts. 1003 *et seq.* is recognized not only to the bordering neighbour but also to the so called ‘ecological’ neighbour, whose land bears the consequences of the emissions⁵⁹.
- 68 The remedy provided for by art. 1108 GCC is the *actio negatoria* or *negativa*. The plaintiff making use of this action may ask that the defendant cease the offending activity and not repeat it in the future. Furthermore, the plaintiff may claim damages provided the preconditions of tortious liability are fulfilled. The provisions of neighbouring law on emissions may also apply to the provisions for protection of possession contained in arts. 984 and 989 GCC, resulting to similar claims raised against any alleged infringement of possession rights by unlawful emissions⁶⁰.
- 69 Art. 1004 GCC gives also the right to the landowner to raise a claim to forbid the construction or cease the operation of installations on neighbouring land, if the resulting illegal interference on his land can be unquestionably foreseen. If, however, the allegedly harmful installation operates either under a licence issued by the competent public authority or in accordance with special terms as specified by law, then, in order to raise a claim to cease the activity, the damage according to art. 1005 GCC must be actual and not merely expected.

4. Damage and remedies

(a) *How is damage defined and measured?*

- 70 The environmental damage must be construed as any prejudice to elements of the vital area, which also results in material losses, e.g. pure economic loss⁶¹.

(b) *Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?*

- 71 Loss of profit also constitutes damage which must be made good according to art. 298 sub-para.1 GCC. Article 298 sub-para.2 GCC, however, sets certain limits as to the legally relevant loss of profit by providing that only „that

58 See *I. Karakostas* (*supra* fn. 1), pp. 314, 412.

59 See *I. Karakostas* (*supra* fn. 1), pp. 412-413.

60 *I. Karakostas / I. Vassilopoulos*, *Environmental Law in Greece* (in English), 1999, p. 136.

61 See *I. Karakostas* (*supra* fn. 1), p. 488 *et seq.*

which can be expected as probable profit in the usual course of events or by reference to the special circumstances and particularly to the preparatory measures taken” shall be reckoned as loss of profit. It is necessary, that is, for the profit to be able to be expected by an average, reasonable man on the basis of objective criteria and, moreover, to be anticipated in advance, i.e., at the time of the event causing the damage.⁶² We fear, however, that the farmer could not easily prove that his loss is the outcome of the customers’ fear that his products are no longer GMO free.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

72 Same as above difficulties of proof.

(d) Which are the criteria for determining the amount of compensation in general?

73 According to the difference theory, the amount of compensation is determined by comparing the status of property existing after the prejudicial event with the property which would have existed had the prejudicial event not taken place. The difference between these two magnitudes reveals the damage incurred⁶³.

74 When calculating damages, the effect of the prejudicial event on all property items of the injured party is to be taken into consideration, provided that the precondition of causal link is also fulfilled⁶⁴; in such a case, the actual damage the injured party has sustained, which includes the *damnum emergens* and the *lucrum cessans*, the direct and indirect as well as the present and future damage, is compensated for⁶⁵.

75 Compensation in principle is paid in money (art. 297 subpara. 1 GCC). Art. 297 subpara. 2 GCC provides however that the court, taking into consideration any special circumstances, may order, *in lieu* of compensation in money, the restoration of the former state of affairs (*status quo ante*) if this is not contrary to the interests of the creditor⁶⁶. In regard to environmental damage, the compensation *in natura* appears more appropriate in cases where the determination of the damage according to the difference theory is impossible⁶⁷.

62 *M. Stathopoulos*, no. 305.

63 *I. Karakostas* (*supra* fn. 1), p. 491; *M. Stathopoulos*, no. 301.

64 *I. Karakostas* (*supra* fn. 1), pp. 491–492; *M. Stathopoulos*, *supra*.

65 *I. Karakostas* (*supra* fn. 1), p. 492.

66 *M. Stathopoulos*, no. 304.

67 *I. Karakostas* (*supra* fn. 1), p. 493.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 76 There is no financial limit to liability. When the injured party has contributed to the damage or to its extent, it is possible that the liability of the injuring party is diminished or even excluded according to art. 300 GCC.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 77 In Greece there is no detailed regulation on insurance coverage of environmental damages. Only art. 23 of l. 2496/1997 on insurance contracts, alteration of the legislation on private insurance and other provisions⁶⁸ provides for the insurance of environmental damage, which covers the expenses for the restoration of the natural environment. The insurance coverage is, however, restricted to cases where the damage was caused by a sudden and unexpected event. On the contrary, civil liability for pollution which is gradually caused as the result of a continuous process is not covered by the insurance policy⁶⁹, even though in most cases damage to the environment occurs progressively, and a relatively long period of time usually elapses between the detrimental act and the environmental damage. Therefore, the largest proportion of environmental damage is left outside the ambit of application of l. 2496/1997 and, from that respect, the said law offers little to the protection of the environment. However, in the introductory report of the law, it is stated that the contracting parties have the discretion to expand the insurance coverage to other types of damage, as art. 23 is not *ius cogens* in so much as it can be altered in favour of the insured⁷⁰. In regard to the restoration function of the insurance policy, there is no doubt that the person that sustains the damage is given recourse against the solvent insurer and not merely against a possibly insolvent operator.
- 78 In view of the lack of a general obligation of insurance, it has been suggested⁷¹ that: either a legal person of public law should be formed, members of which should be all operators of facilities, who gain profit by engaging in activities, which directly or indirectly result in the degradation of the environment; the said legal person will be liable for damages, which will be paid up by a capital created by the contribution of the members of the legal person, or that annual contributions should be imposed, managed by the State, to the enterprises which are expected to cause environmental damage. The person who sustains the damage will then have the opportunity to either ask to be compensated by the State or file an action against the polluter.

68 FEK A, 87.

69 I. Rokas, Private Insurance, Athens 1998, p. 170.

70 I. Karakostas (*supra* fn. 1), pp. 501-502.

71 See I. Karakostas (*supra* fn. 1), p. 506.

(g) Which procedures apply to obtain redress in such cases?

- 79 Apart from the ordinary action, the procedure of provisional measures provided by the Greek Code of Civil Procedure in its arts. 682 *et seq.* also applies to cases of environmental pollution, so that a court judgement is rapidly given.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

IV. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 80 Specific rules which cover costs associated with sampling and testing are found in Article 6 § 4 of the Joint Ministerial Decision 332657/2001⁷² and require from seed enterprises to bear the cost of re-examination of some kinds of seeds (sugar beet, rape, maize, soybean, cotton, and certain varieties of tomato) in case they challenge the results of the first examination.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 81 For the farmer who has sustained damage from the release of GMOs, general tort rules would apply and costs associated with sampling and testing of GMO presence borne by him can be included to the amount of damages to be asked from the releaser.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 82 As the law stands, it will be difficult to recover such costs if there is no actual GMO presence.

⁷² FEK Issue B' 176/2001.

V. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

83 There are no such rules in force or planned.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

84 In Greece there is neither special jurisdiction nor specific conflict of law rule that addresses the issues of environmental liability. Therefore, the general rules of choice of law and jurisdiction apply to environmental cases.

85 Generally, the international jurisdiction of the Greek courts is established if they have territorial competence over the subject matter (art. 3 combined with arts. 22-41 GCCP). As far as environmental matters are concerned, arts. 29 and 35 GCCP can apply. Art. 29 thereof provides that actions relating to property interests on immovables, including leases but not purchase and sale contracts, are allocated to the courts of the *situs*, while art. 35 dictates that actions on tort constituting simultaneously a criminal act may be brought at the place of either the conduct or its effects.

86 Arts. 29 and 35 differ not only in regard to their ambit of application but also on the exclusive and concurrent nature of the jurisdiction they establish. Therefore, in case of environmental damage, which constitutes a criminal act and simultaneously a neighbour law dispute, the Greek courts will have exclusive jurisdiction if art. 29 GCCP is invoked or concurrent jurisdiction if art. 35 GCCP is invoked⁷³.

87 The said provisions are crucial not only in regard to the establishment of the Greek courts' international jurisdiction, but also in regard to the recognition and enforcement of foreign judgements. According to arts. 323 and 905 GCCP, a precondition for the recognition and enforcement is that the case falls under the international jurisdiction of the court which issued the judgement according to the Greek law. Therefore, if it is deemed that the Greek courts have exclusive jurisdiction over a case judged abroad, the recognition and enforcement of the foreign judgement cannot be effectuated, even if the judgement itself is favourable to the injured persons and to the environmental goods infringed. In view of the above, it is suggested⁷⁴ that it would be posi-

⁷³ I. Karakostas (*supra* fn. 1), p. 726.

⁷⁴ I. Karakostas, *supra*.

tive for the protection of the environment to introduce a provision on international jurisdiction, which would not establish exclusive international jurisdiction, but would allow the choice of the competent court.

- 88 Furthermore, the Court of European Communities has held (case *Mines de potasse d'Alsace*) that according to art. 5 § 3 of the Brussels Convention, which provides for the international jurisdiction of the member states in case of torts, the place where the prejudicial activity took place as well as the place where its effects have been displayed are crucial to the matter. It is up to the plaintiff, i.e. the person who sustained the damage, to decide before which court the case will eventually be brought.
- 89 The Court of European Communities with the said decision has acknowledged the possibility of forum shopping for reasons of apt judicial proceedings. However, the solution given also creates a *favor laesi*, as it functions as a protection mechanism for the interests of the injured party⁷⁵.
- 90 In regard to choice of law rules, the problem first encountered has to do with the legal characterization of environmental disputes in light of the different views and solutions adopted among different legal orders⁷⁶. As far as the Greek legal order is concerned, it is generally accepted that it is possible to invoke and resort to more than one legal bases, which have different scope of protection and different legal consequences (e.g. provisions on neighbour law, tort law etc.). However, according to the prevailing view, matters concerning ecological disputes are better dealt under the provisions on torts. Art. 26 GCC provides that tort issues are governed by the law of the state where the tort was committed. As far as environmental matters are concerned, criticism has been made, on the ground that the *lex loci delicti commissi* does not provide with explicit answers in case the tort is linked with multiple places. There is respectively doctrinal dispute on the meaning of the phrase „where the tort was committed”, and in particular on whether it refers to the place of the conduct or of its effects or of both with the plaintiff having the right to choose or to the place where the main aspect of the tort is located⁷⁷.
- 91 It has been suggested⁷⁸ that the place to which the environmental damage is more closely connected is the place from where the ecological disorder stemmed and for the first time displayed, namely the place where the source or the facility of the environmental risk is located: The legal order of the said place was the first one which dealt with the legal and economic parameters of

75 Chr. Jünger, Der Kampf ums Forum, *RabelsZ* 1982, pp. 714 *et seq.*; I. Karakostas (*supra* fn. 1), p. 728.

76 I. Karakostas (*supra* fn. 1), p. 730.

77 I. Karakostas (*supra* fn. 1), p. 734. See also (in English) Ph. Kozyris, Ch. 16 I B 2, in K. Kerameus /Ph. Kozyris (eds.), *Introduction to Greek Law*, 2nd ed., 1993.

78 I. Karakostas (*supra* fn. 1), p. 739.

the matter. The occupational activity, which poses the environmental risk, has been established and operates under the said legal frame, therefore it is required that the imputation of the damage is also dealt with under the same legal frame. Besides, the most important and grave environmental consequences are as a rule displayed at the place where the source of the environmental risk is located. Accordingly, it is only reasonable to expect that the law of the said place is the most suitable to cope with the potential risk.

- 92 In case, however, that it is impossible to locate the source or sources of the environmental degradations, the place where the prejudicial consequences are displayed for the first time is regarded as the most suitable connecting link⁷⁹.

⁷⁹ I. Karakostas (*supra* fn. 1), p. 740.

11. HUNGARY

Attila Menyhárd

I. Special Liability or Compensation Regimes

- 1 The most comprehensive genetic technology related legislation in Hungary is the Act No. XXVII of 1998 on genetic technology activity as it is amended¹ by the Act no. CVII (further referred to as Genetic Technology Act). This Act provides for a special liability regime for genetic technology activity in general² as well as for liability for damage caused as a result of incomplete segregation of GM and traditional crop production. As a general rule § 27 of Genetic Technology Act provides that as genetic technology activity may imply considerable hazard the liability for dangerous activities (§ 345 et seq. of the Hungarian Civil Code) shall be applied to liability for damage caused by genetic technology activity. A similar regime is established for liability for incomplete segregation. § 21/D subparagraph 5 and 6 of Genetic Technology Act provide that for liability for damage caused as a result of incomplete segregation of GM and traditional crop production § 345 and § 346 of Hungarian Civil Code (the strict liability regime for dangerous activity) are to be applied. If, however, the victim as the owner or user of the neighbouring land has consented in a written form the growing of genetic plants according to § 21/C of Genetic Technology Act, the general liability regime is to be applied (according to §§ 339 – 342 and § 344 of Hungarian Civil Code).
- 2 § 345 of the Hungarian Civil Code – which is referred to in these provisions of Genetic Technology Act – establishes that the operator of an especially dangerous activity shall be liable for damage caused by such an activity and the operator may exonerate himself only by proving that the cause of the damage fell outside the scope of the dangerous activity and was unavoidable or that the victim was the one who caused the damage wrongfully. § 346 of the Hungarian Civil Code (subpars. 1-4) provides that if damage is caused by two or more persons through activity that involves considerable hazard, the general rules and regulations governing liability shall apply to their relationship with one another. If the cause of damage is not attributable to either of
 - 1 The amendment, which came to effect on 22 December 2006 establishes the special liability regime for incomplete segregation of GM crop production from the traditional ones.
 - 2 I.e. damage caused by genetic technology activities such as establishing an institution (e.g. a laboratory) that performs genetic technology activity, modification of genes, utilization of gene-manipulated micro-organisms in closed systems, emission, export, import, putting the output of genetic technology activity into circulation and elimination.

the parties, but it derives from a malfunction that occurred within the realm of activity involving considerable hazard performed by one of the parties, that party shall be liable for paying damages. If the cause of damage is a malfunction that occurred in the sphere of both parties' activity involving considerable danger and, furthermore, if such malfunction cannot be attributed to one of the parties, each party shall, since individual responsibility cannot be established, bear liability for his own loss. The regulations pertaining to liability for occupational accidents are established by separate legal regulations.

- 3 The scope of regulation provided by the Genetic Technology Act including the provision concerning liability covers the production and distribution of GM-products as genetic technology activity in general as well as damage caused in the course of growing genetically modified crops neighbouring to traditional crop production. Risks described in the introduction of the questionnaire as economic damage resulting from actual or feared GMO presence in non-GM crops are covered with this liability rule only in so far as they are the result of incomplete segregation from neighbouring cultivated traditional plants. There is not any other compensation regime that covers these kinds of risks.

II. General Liability or other Compensation Schemes

1. Introduction

- 4 There are basically three liability regimes to be applied for such damage. The first is the basic norm of liability: § 339 subpar. (1) of the Hungarian Civil Code provides that if someone causes harm unlawfully to another person, the tortfeasor is obliged to pay damages, unless (s)he proves that (s)he acted, as it can in the given situation, be generally expected (i. e. according to the general standard of conduct). There are four prerequisites of liability:
 1. damage;
 2. unlawfulness of the damage;
 3. causal link between the conduct of the tortfeasor and the suffered harm; and
 4. accountability of the tortfeasor's conduct (a specific concept of fault).
- 5 The burden of proof regarding damage and causation rests on the plaintiff, the absence of fault on the defendant. Unlawfulness of the damage is presumed. If the aggrieved party (the plaintiff) proves that (s)he suffered damage and this was the result of the conduct of the tortfeasor (the defendant), the defendant shall be liable unless (s)he proves that (s)he acted according to the generally expected standard of conduct or if (s)he proves that causing harm was lawful in the given situation. In order to prove the lawfulness the tortfeasor has to

rely on a special exceptional statutory regulation (or a provision of the Civil Code), which allows him to cause harm in the given circumstances. The main characteristics of the system of Hungarian tort law are that

- this is a system based on general clause of liability;
- fault is an objective concept: failure of acting according to the general standard of conduct itself establishes fault;
- the burden of proof is reversed; fault is presumed and the tortfeasor has to prove that he was not at fault (he acted according to the general standard of conduct) in order to be exonerated from liability;
- this is a system of open rules and these open rules provide great power to the courts and allow them to establish and use the proper guidelines to assess the tort cases.
- Accordingly, the Hungarian tort law as a law in action is a flexible system.³ The result of this system is that a great part of the Hungarian tort law is a judge-made law, which applies a complex system of criteria to assess and decide tort law cases and to draw the boundaries of liability.

- 6 The second regime is strict liability for especially dangerous activity. § 345 Hungarian Civil Code provides that a person who carries on an activity involving considerable hazards shall be liable for any damage caused thereby. Only being able to prove that the damage occurred due to an unavoidable cause that falls beyond the realm of activities involving considerable hazards or from an activity attributable to the aggrieved person shall relieve such person from liability. Neither the scope of the considerably hazardous activities nor the carrier or operator of the activity is defined nor are guidelines provided in the Civil Code. The guidelines for the assessment and scope of the considerable hazardous nature of the activity and for determining the person who shall be liable for that activity are elaborated in the court practice. In qualifying an activity as a considerable hazardous one the court shall consider all the circumstances of the case.⁴ The person, who is the owner, or who is in

3 Really as it has been established by Walter Wilburg. See: Walter Wilburg: Entwicklung eines beweglichen Systems im Bürgerlichen Recht (Rede gehalten bei der Inauguration als Rector magnificus der Karl-Franzes Universität in Graz am 22 November 1950, Graz, um 1950.) and Zusammenspiel der Kräfte im Aufbau des Schuldrechts [163 AcP (1964) 364. ff.

4 There are activities which under certain circumstances will be considered as considerable hazardous resulting strict liability while under other circumstances not. Liability for damage caused by motor vehicles or industrial machines, by chemicals, explosives, acids or other dangerous materials, by activities which require special prevention such as mining, well-digging etc. are treated as considerable hazardous ones. The keeping of wild animals and traditional environmental damage are also governed by the liability for con-

the situation to control the activity, to prevent damages, or whose direct interest is the pursuing the activity (e.g. the land-owner who orders chemical vaporization) can be treated as the operator of the activity and as such liable under § 345 Hungarian Civil Code. There is no distinction between holding a dangerous thing and pursuing a dangerous activity: the holding of a dangerous thing can be a dangerous activity falling under § 345 Hungarian Civil Code. There is no special form of liability for enterprise liability in Hungarian tort law.

- 7 The third liability regime that may cover cases specified in the questionnaire is product liability.⁵ Liability of the producer for damage caused by the product as a subject of special regulation is the result of the impact of European Community legislation. In Hungary the Product Liability Directive has been implemented by the Act X of 1993 on the Product Liability. Even though the Product Liability Act as the implementing measure of the Directive has been in force for more than ten years now, there has not been developed any practice to be analyzed from the point of view of usually compensated damages. Consequential loss is not covered by the product liability regime therefore such losses cannot be compensated under product liability regulations.⁶
- 8 For cases specified in the questionnaire these three regimes may be relevant although product liability may come to the front in specific cases. The concept of extremely dangerous activity triggering the specific form of strict liability according to § 345 of the Hungarian Civil Code is open and there is no closed list for what kind of activities may or shall be ranked under this heading. Courts may establish that strict liability for dangerous activity according to § 345 of the Civil Code shall be applied to liability cases specified in the questionnaire. Since § 345 of the Civil Code does not define what kind of activities shall be deemed as extremely hazardous this is an open category allowing a wide „playing field” to the courts. Even if there are typical activities belonging to this category sometimes courts use the openness and abstract nature of this notion simply to allocate the risk as they think fit through establishing strict liability. The regulation, which provides that strict liability for dangerous activities shall be applied to liability for gene technology activity and for incomplete segregation of traditional and GM crop production – even if legislation does not specifically cover economic damage resulting from actual or feared GMO presence in non-GM crops in general – would presumably influence the courts and would turn them to the application of § 345 of the Hungarian Civil Code on strict liability for especially dangerous activities.

siderable hazardous activity. Building construction work also can be qualified as extremely hazardous, while certain activities – such as using household machines, using fire like lighting a cigarette – are regularly not, even if they can really be dangerous.

- 5 I am not quite sure whether product liability would really come into consideration in cases covered by this project but this moment I could not exclude this possibility.
- 6 BH 2005 no. 354 (Supreme Court, Legf. Bir. V. Pfv. VII. 20.620/2004).

This would fit into the risk allocation approach that courts seem to follow as they decide which activities shall be deemed especially dangerous resulting in the application of strict liability according to § 345 of the Civil Code.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 9 Causation is one of the general prerequisites of liability and a very complex phenomenon as in theory as in practice. According to the general liability rule of the Civil Code (§ 339), the wrongdoer shall be liable if he causes the harm. If causal link cannot be established, a precondition of liability is missing. One cannot be liable for damage which he did not cause. Legal theory and practice focus on problems of determining the relevant cause and risk allocation instead of natural causation. In special forms of liabilities, such as liability for considerably dangerous activity (§ 345 Civil Code), liability is not established simply by natural causation but according to an implied obligation of certain persons, for example, to keep the dangerous activity safe for others. The liable person is defined through regulation – e.g. the person who shall be treated as running the dangerous activity (the operator) – without the general test of causation.⁷ Causation shall be established between the dangerous character of the activity and the damage.
- 10 According to the general rule of liability, the but-for test is accepted as the first necessary step for establishing liability.⁸ The theoretical explanations of causation in tort law, however, concentrate on establishing the legally relevant cause instead of natural causation. Within the general form of liability if the aggrieved person (the plaintiff) cannot prove⁹ the causal link between the defendant's conduct and the harm, the court will dismiss the claim. According to the general (or basic) rules of liability, one cannot be liable if one's activity or omission was not a necessary cause of the harm suffered by the victim.
- 11 Causation is an element of the „flexible system” in Hungarian tort law. It means that the court has to apply an evaluation method to choose the relevant causes from the causal chain. The causation link must be established between

7 Causation is established in these special forms of liability only on the level of theoretical explanations (e.g. the caretaker is a cause of the harm caused by the child in so far as she did not act in caretaking as was generally expected. F. Petrik, *A kártérítési jog* (Budapest, 1991) 30).

8 Gy. Eörsi, *Kötelmi jog általános rész* (8th ed., Budapest, 1988) 269.

9 As far as the preconditions of liability are concerned, the Hungarian court practice takes a very strict line on the burden of proof. It must be taken into account that the civil procedure rules are based on an unbound system of evidence where the court is not bound in the evaluation of the proofs. The conviction of the court is decisive.

the breach of duty (not to cause harm)¹⁰ and the damage. It is not enough to consider the objective chain of events leading to the harm: the judge has to look for the relevant cause of the harm.¹¹ According to legal theory, the causal link between the harm and the tortfeasor's conduct is established if three concurrent preconditions are met: the harm could not have occurred without the tortfeasor's conduct (but-for-test); the conduct is attributable to the tortfeasor; and it is possible to influence the tortfeasor's conduct with the application of legal sanction (the legal sanction may have a preventive effect).¹²

- 12 Causation is a very important factor in limiting liability as well. Limitation of liability is as much inherent in a tort law system as liability itself. It follows from the very flexible structure of tort law regulation that the legislator in the two most important aspects of liability – i.e. the accountability and the causation – makes way to the greatest extent to the court practice leaving the consideration of the case entirely in the hands of the judge. It means that if one tries to seek the limitations of liability they also shall be found in the court practice. *Eörsi*, whose liability theory most influenced the tort law system of the present Civil Code, in an essay in 1985 on the limits of indirect causation¹³ tried to list the possible limitation measures within causation. His starting point was that the principle of full compensation and causation are two main pillars of tort law regulation. Causation is, however, a chain, which flows from the past to the future extending at the same time in different divergent branches creating new chains of causes. Such being the case there are many situations where the full compensation is *summum ius, summa iniuria*. It is obvious that tort law must avoid such a situation and the main measure to do this is the limitation of liability, even when it is impossible to draw the exact barriers of indirect causation or indirect damage. According to *Eörsi* these possible limitation measures are: the restricting of liability to the foreseeable harms;¹⁴ the doctrine of adequate causality; the doctrine of normal consequences; the test of remoteness of damage; the doctrine of organic causal connection; the risk allocation aspect; the principle of proportionality; the doctrine of reasonable connection between the harm and the threat. Trying to summarize how these doctrines contribute to the Hungarian court practice one

10 The standpoint of Hungarian tort law is the principle that it is prohibited to cause damage to others except when the law provides otherwise.

11 It is a kind of theory of adequate causality. Gy. Eörsi, *A polgári jogi kártérítési felelősség kézikönyve* (Budapest, 1966) 263.

12 F. Petrik (1991) 27. The third precondition (prevention) is stressed in legal theory but does not appear explicitly in court decisions.

13 Gy. Eörsi, *A közvetett károk határai in: Emlékkönyv Beck Salamon születésének 100. évfordulójára*, Budapest, 1985, 59-68.

14 Eörsi reckons that the foreseeability has not only a limitative effect, but an extensive one also. The abstract foreseeability on the one hand has a limitative effect, because only the actual foreseeability establishes liability, but the actual foreseeability on the other hand may also be established in cases where the concrete process of the case could not have been foreseen. Eörsi (1985) 62.

can say that the court may limit the liability and refuse full compensation by dismissing the claim for damages if the harm was unforeseeable to the tortfeasor (foreseeability doctrine); it was beyond rational probability, was untypical or unique (adequate causality); it was beyond the normal consequences and was too unexpected;¹⁵ if the harm as the consequence of the tortfeasor's conduct was too remote;¹⁶ if in the causal link the interference of an unexpected cause altered the normal foreseeable consequences and contributed to the causing of the harm;¹⁷ if damage was within normal risk imputed to the aggrieved party;¹⁸ or if it would be disproportionate considering the amount of damage and the degree of fault.¹⁹ Hungarian courts are inclined to cut off the causation link at losses deemed too remote, and they use the concept of accountability to reduce the tortfeasor's liability to foreseeable losses or they simply solve the problem with the burden of proof regarding the causal link and the amount of the damage.

- 13 The burden of proof is allocated to the victim: the plaintiff has to prove that if the tortfeasor's conduct had not occurred, he certainly would not have suffered loss or with absolute certainty would have earned a certain profit. If the link of causation between the alleged damage and the presence of the GM crop has been proven by the victim according to the but-for-test the question is whether the court would limit the liability on the ground of risk allocation policy considerations or not. There are no specific rules allocating the costs of testing or of other means to establish causation.

15 That was the reason of dismissing the claim against a hospital in a case where a mentally ill person fled from the hospital, got on a train without ticket and as the controller asked for the ticket, he committed suicide jumping out from the train. Eörsi (1985) 62.

16 This is the case where someone cuts a telecommunication earth-cable with a machine during excavation works and thousands of people (including factories) remain without telephone services and because of the damaged cable it is impossible to call the police, the fire brigade or the ambulance. In this case the tortfeasor shall not be liable for all these further consequential losses, because they are too remote. Eörsi (1985) 63.

17 This may be used as limitative factor if the tortfeasor tempts a child to committing crime and because of this the child's mother commits suicide. For the death of the mother the tortfeasor shall not be liable. Eörsi (1985) 63.

18 This is the base of the limitation of liability if someone spoils a bridge or causes an accident and because of it the traffic is diverted to a longer route. The diverting of the traffic is an event, which may occur on a lot of reasons, even (and mostly) without someone's fault; that is why it is an event that everyone must count on and as such it is a general risk of life (*allgemeines Lebensrisiko*). This risk must be run with everyone and others cannot be held liable for this. Eörsi (1985) 64.

19 If in a so called cable-case a whole district remains without electricity because of the conduct of the tortfeasor whose negligence was not gross the liability covers the costs of reparation and the economic loss of the electricity operator but not the harms and loss of the people and businesses who had been left without electricity. Eörsi (1985) 65.

(b) How is the burden of proof distributed?

- 14 According to the general doctrine causation and damage are to be proven by the victim. The tortfeasor has to prove the ground of exoneration (the absence of fault i.e. that his conduct met the general standard, or specific ground of exoneration in case of specific form of strict liabilities). There is a reversed burden of proof regarding fault (or other ground of exoneration) but there is not a reversed burden of proof regarding damage and causation. In practice, however allocation of burden of proof is not a rigid and formalistic principle and some subjectivism cannot be excluded. Even if damage as the consequence of the presence of a certain GM crop is not to be presumed in the cases specified in the introduction of the questionnaire the court may take the view that it is so and may shift the burden of proof that there are other possible causes of the damage (other sources of adventitious presence of GMOs) to the assumed tortfeasor.
- 15 Allocation of the burden of proof may be somewhat flexible in the context of a concrete civil procedure. This means that even if there are no rules or doctrines that would result in a reversed burden of proof explicitly or in the sense that the damage under certain conditions should be presumed to be the consequence of the presence of a certain GM crop (e.g. if it is established that the GMO farmer failed to apply proper segregation measures) in case of a very high level of probability or in apparent absence of other sources of adventitious presence of GMOs the court would shift the burden of proof to the defendant and would require the defendant to prove that e.g. in spite of the failure of applying proper segregation measures the damage could not have been caused by him.
- 16 The question raises another aspect that should be addressed in this paragraph separately, namely the causation of omission. It is well established in Hungarian tort law theory and practice that an omission can be the cause of harm and may establish liability. The wrongdoer shall be liable for his omission if the damage would not have occurred had he acted according to his duty (as imposed on him by law).²⁰ In the case of an omission, liability is established by not starting a causal process which would have avoided the harm. If the breach of the duty is not a natural cause of the harm, the person who has breached his duty shall not be liable. If, for instance a doctor is called or arrives too late to a seriously injured person but it is proven that the injured person would also have died if the doctor had been present earlier, the omission is not a cause of the harm, so liability cannot be established on the basis of a breach of duty.²¹ The same holds for cases where a physician omits his duty to

20 A Magyar Népköztársaság Polgári Törvénykönyve – az 1959. évi IV. törvény és a törvény javaslatának miniszteri indokolása [Motivation for the Hungarian Civil Code] (1963) The motivation to § 339.

21 F. Petrik (1991) 27.

inform the patient about the possible risks and side effects of medical treatment or intervention. If the patient would have consented even if he had been correctly informed and would not have decided otherwise, the court will reject the claim for damages for breaching the duty to inform on the grounds of lack of causation.²² If a farmer as a possible tortfeasor utilizing GMOs and growing GMO crops failed to apply proper segregation measures the plaintiff has to prove that if the farmer had complied with the general requirement imposed on him by law (either by regulation or as a part of the required general standard of conduct) and applied the proper segregation measures the harm (his loss resulting from GMO „contamination”) would not have occurred. This would establish causation and this shall be proven by the victim.

- 17 Different sources of adventitious presence of GMOs (e.g. seed impurities, out-crossing with neighbouring crops, volunteers, transport, storage) shall be taken into account in the course of establishing causation. The actual or possible different sources of adventitious presence of GMOs in a given case may make the burden of proof on the victim stricter: the victim has to prove that even if there are other possible or actual sources of adventitious presence of GMOs the alleged tortfeasor’s activity is (solely in itself or as one of multiple causes) the cause of the damage. If there does not seem to be any other possible or actual sources of adventitious presence of GMOs the court would be more ready to accept that the alleged tortfeasor’s activity is the cause of the damage. One has, however to take into account the relatively flexible attitude of the courts in establishing burden of proof: an enough high probability may shift the burden of proof to the other party. The court would not require the victim to prove that there are no other possible or actual sources of adventitious presence of GMOs as the alleged tortfeasor’s activity in order to establish the defendant’s liability.

(c) How are problems of multiple causes handled by the general regime?

- 18 There are no special rules, principles or doctrines on alternative, potential or uncertain causation in Hungarian tort law theory and practice. In context of multiple causation or multiple tortfeasors’ neither are there such rules, principles or doctrines that would channel liability to a particular person. The Hungarian Civil Code provides special regulation for damage caused by multiple tortfeasors. According to § 344 of the Civil Code, if damage is caused jointly by two or more persons, their liability shall be joint and several towards the aggrieved person, while their liability towards one another shall be divided in proportion to their respective degree of responsibility. Liability for damages shall be divided in equal proportions among the responsible persons if the degree of their responsibility cannot be established. The court shall be entitled to declare joint and several liability and condemn the persons having caused the damage in proportion to their respective contributions if doing so would not

22 Á. Dósa, *Az orvos kártérítési felelőssége* (Budapest, 2004) 99.

jeopardize or considerably delay the compensation for damage or if the aggrieved person has himself contributed to the occurrence of the damage or has procrastinated in enforcing his claim without any excusable reason. In the literature and in practice there is a controversy about whether the two or more persons should act with a certain degree of common intention or whether they can act independently to be held jointly and severally liable for the damage. In the literature there are opinions according to which common intent is a necessary requirement for establishing joint and several liability.²³ This view is not in accordance with the motives behind the draft of the Civil Code which explicitly states that common intention of more tortfeasors is not a precondition for treating them as joint or multiple tortfeasors in the meaning of § 344 of the Civil Code. More authentic interpretations also stress the objective character of the assessment and that the common intent is not a precondition of common liability; the object of the tortfeasors' conduct is irrelevant. If, for instance, two cars collide and as a result of the accident someone who is travelling in one of the cars is injured, the two car drivers shall be treated as multiple tortfeasors and are jointly and severally liable.²⁴ Mere interdependence in causation is, however, not always enough for establishing common liability. If someone negligently fails to fulfil his obligation and this makes it possible for someone else to cause a harm, (s)he also shall be jointly and severally liable with the tortfeasor who caused the harm directly. The two main principles for rendering joint and several liability were the prevention and the provision of a better chance of compensation for the claimant. The distinction between – jointly and severally liable – multiple tortfeasors and several independently liable tortfeasors can be found in terms of causation: the tortfeasors are jointly and severally liable multiple tortfeasors if the behaviour of each is a *conditio sine qua non*. The tortfeasors shall not be jointly and severally liable if there is no causal interdependence between the harmful conducts or if the interdependency is too remote. If, for instance, someone causes a car accident and the victim suffers an injury which is not fatal but dies because the surgeon is negligent, the two tortfeasors are not jointly and severally liable.²⁵

- 19 In context of the cases specified in the introduction of this questionnaire if there are more sources of adventitious presence of GMOs and these sources are attached to the activity of different persons, these persons shall be held as multiple tortfeasors and they are joint and severally liable vis-à-vis the victim while they would share liability among themselves according to the level of their fault [§ 344 subpar. (1) of the Civil Code]. Whoever pays more under joint and several liability than their fault would have established has a right of recourse (regress claim) from the others who paid less (or nothing) in proportion to the level of their fault.

23 B. Kemenes/L. Besenyei, A kártérítés általános szabályai, in: Gy. Gellért (ed.), A Polgári Törvénykönyv Magyarázata (2002) 110 ff., 1120.

24 K. Benedek/M. Világhy, A Polgári Törvénykönyv a gyakorlatban (Budapest, 1965) 349.

25 Motivation for the Hungarian Civil Code (1963) The motivation to § 344.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 20 Under the fault based liability regime there is a reversed burden of proof regarding fault: the tortfeasor may exonerate himself by proving that he acted in line with the general standard of conduct. Fault is failure to act according to the required standard of conduct [to act as it is in the given circumstances generally expected – § 339 subpar. (1) of the Civil Code]. Fault is an objective concept which reflects whether certain harm is attributable to the tortfeasor in the fault-based liability regime. Fault shall be assessed on a case by case basis. There are no settled guidelines or principles determining fault. Negligence or intention is irrelevant as the personal, subjective qualities of the tortfeasor are to be disregarded as well. The requirements that the general standard of conduct imply reflect the nature of the tortfeasor's activity and the risks involved by this activity under the given circumstances. The standard may be very high and may reach even the level of unavailability of the harm: the general standard of conduct may be doing everything possible in order to avoid causing damage to others.
- 21 Clearly established statutory rules defining the required conduct for GMO agriculture would make a difference only if regulation would explicitly declare that if the tortfeasor's conduct meets the statutory rules the tortfeasor shall not be liable. In absence of explicit statutory limitation of liability – in my opinion – such a regulation would provide only an indication of what farmers should do but would not affect their liability or the determining of the required standard of conduct.
- 22 The relevance of clearly established statutory rules defining the required conduct for GMO agriculture may be relevant for two basic preconditions of liability: unlawfulness and fault as well. Such regulation would *per se* neither make causing damage lawful nor the conduct of the tortfeasor as being in line with the general standard of conduct. Making damage lawful the regulation has to provide that the tortfeasor is entitled to cause damage in cases and circumstances specified in the regulation and – similarly – making the tortfeasor's conduct in line with the required general standard of conduct the regulation shall have to provide explicitly that compliance with the rule itself means that the tortfeasor's conduct meets the generally required standard of conduct (so the tortfeasor cannot be held as acting at fault).
- 23 As far as unlawfulness is concerned, the basic norm of Hungarian tort law [§ 339 subpar. (1) of the Hungarian Civil Code] on fault-based liability provides that the tortfeasor shall be liable for the damage which he caused unlawfully and allows the tortfeasor exoneration if he proves that he acted according to the generally required standard of conduct. The theoretical basis for the

concept of unlawfulness was that in general causing damage shall be deemed as unlawful unless it is explicitly otherwise provided by the law.²⁶ If the tortfeasor can prove that in that certain case the causing of harm is explicitly rendered lawful by the law he shall not be liable.²⁷ With other words, a conduct which results in damage to others is unlawful and from this follows that causing harm is always unlawful. Unlawfulness shall be presumed and can be established in absence of infringement of a special statutory regulation as well. According to theory that prevails today unlawfulness and fault are two prerequisites of liability to be distinguished, even in some cases it can be hard to set them apart.²⁸ The notion of unlawfulness in tort law is a category of private law independent from illegality established by infringement of statutory provisions, either in private or in public regulation. From the autonomous concept of unlawfulness follows that even in the absence of an infringement of a statutory provision the tortfeasor shall be held liable and – on the other hand – the compliance of the tortfeasor’s conduct with a statutory provision or administrative permission in itself does not prevent the tortfeasor from being held liable.²⁹ The violation of a statutory provision may play, however an important role in the qualification of the damage. If the qualification of the damage is important from the point of view of establishing the applicable regime (e.g. whether the liability is strict or a fault-based one) the violation of a specific regulation would orient the courts.

- 24 According to the new regulation provided by the amended Genetic Technology Act permission is required to pursue GMO crop production activity and the permission shall be given under preconditions specified in the Act are ful-

26 The court practice, however, has never been consequent in following the approach that a conduct which results in damage to others is unlawful and from this follows that causing harm is always unlawful. The courts very often try to find a certain legal norm which had been infringed by the tortfeasor in order to establish liability even if this would not be a necessary requirement or are arguing simply that the tortfeasor’s conduct was not unlawful if they think rejecting the claim just. The violation of a certain statutory provision may provide – despite the original theoretical background of tort law regulation which would not make it necessary – an important reference point to the courts in establishing unlawfulness and liability. The court practice in Hungary is in a state of change regarding the doctrine of unlawfulness. See BH 2005 no. 12. (Supreme Court, Legf. Bír. Pfv. III. 22.883/2001.); BH 2005 no. 17. (Pécs High Court of Justice, Pécsi Ítéltábla Pf. III. 20.356/2004.) The courts in these decisions rejected the claims of the plaintiffs simply referring to the absence of unlawfulness without finding and referring to a norm which would allow causing harm explicitly as it would have been required by the general doctrine. Neither of the cases was connected to application of administrative law regulation.

27 Gy. Eörsi, (1966) no. 221. The defences are such as the consent of the aggrieved person, the necessity, the authorized exercise of rights etc.

28 Gy. Eörsi (1966) no. 252.

29 B. Lenkovic, A környezetszennyezés polgári jogi szankciói in: L.Asztalos/K. Gönczöl eds. Felelősség és szankció a jogban [Liability and sanction in the law] (Budapest, 1980) 317 ff, 324.

filled. The fulfilment of the requirements and the permission however do not make the tortfeasor's conduct lawful. According to prevailing theory the tortfeasor cannot plea successfully with relying on the permission or that he acted in line with the statutory requirements (e.g. that he kept the buffering zone required by the law) in order to be relieved from liability. The lawfulness of the tortfeasor's conduct in public law in itself does not permit one to cause damage to others.³⁰ Thus, the Hungarian legal system does not allow the „regulatory permit defence” or „regulatory compliance defense.” Compliance with statutory or individual permission makes the tortfeasor's conduct lawful in public law but does not make it lawful in tort law. The permission itself or compliance with statutory or regulatory requirements does not constitute exemption for the tortfeasor from civil law liability.

- 25 As far as fault and regulation are concerned, the regulation itself provides only a minimum standard of conduct. The failure to comply with regulation is an obvious failure to meet the general standard of conduct. The existence of such regulation does not mean that there are no further implied requirements not settled in regulation. From this follows that – except it is explicitly otherwise provided by the law – compliance with regulatory standards does not mean compliance with required general standards of conduct. Administrative law regulations may provide, however, important reference points on what the required standards of conduct in that certain case could and should be.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, etc.)?

- 26 Since there is a general clause of strict liability for especially dangerous activities in Hungarian tort law provided by § 345 of the Civil Code, strict liability for dangerous activities itself is a flexible regime. The idea of strict liability for dangerous activities rests on the high risk going with such activities that calls for special risk allocation. As it has been presented in the introduction, a considerably wide range of activities have already been qualified as dangerous ones in court practice. There are not, however any well settled and formulated guidelines which really could help in predicting whether cases specified in the introduction of the questionnaire would be subsumed under this regime or not except the cases where it is explicitly provided by the Act. It is almost impossible to predict whether new, in court practice not yet qualified cases would be deemed as extremely dangerous, triggering strict liability or not. The Genetic Technology Act referred to in the introduction of this report provides (§ 27 and § 21/D subpar. 5.) that liability for producing and dis-

30 E.g., BH 1999. no. 449 (Supreme Court, Legf. Bír. Pfv. I. 23.084/1998. sz.); BH 2000. no. 244 (Supreme Court, Legf. Bír. Pfv. X. 21.156/1999. sz.).

tributing products of genetic technology are dangerous activities that shall be covered by strict liability under § 345 of the Civil Code as well as the liability for incomplete segregation of GM and traditional crop production. This is a normative declaration of the dangerous character of genetic technology activity and would presumably influence the courts into the direction of extending this qualification from production and distribution to utilization as well. This would fit very well to an overall tendency of extending the scope of dangerous activities and application of strict liability according to § 345 Civil Code to cases not specified in the Act as well.

- 27 There are neither in theory nor in practice generally specified requirements that could be usefully generalized for cases specified in the description of this project and which would help in qualification. The general extensive tendency, the qualification provided by the Genetic Technology Act for production, distribution and incomplete segregation and risk allocation considerations (including the attempt to make the plaintiff's situation better regarding the burden of proof and making the 'Beweisnotstand' easier for the victim) would presumably – albeit not necessarily – lead to application of § 345 Civil Code and strict liability regime for especially dangerous activities.
- 28 Even in a strict liability regime for especially dangerous activities there are defences for the tortfeasor which may lead to exoneration. There are two defences that shall be accepted and result in exempting the tortfeasor from liability in this regime. The tortfeasor shall not be liable if he proves that the damage has been wrongfully caused by the victim himself or if he proves that the cause of the damage fell outside the scope of the dangerous activity *and* was unavoidable.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 29 Nuisance or similar neighbourhood problems are covered by specific provisions on the protection of property. The most important provision is the general clause in § 100 of the Civil Code which prohibits owners exercising their property rights to the unnecessary disadvantage of others, especially their neighbours. In context of tort law, however, these provisions do not make a difference since there are not any specific remedies or sanctions for violation of this requirement. In absence of special sanctions, remedies for torts shall be applied.³¹ Even if these rules are to apply to cases of the kind covered by this study general tort law regulation is to be applied.

³¹ E.g. in a very recent decision the Hungarian Supreme Court established that the landowner's claim against a cell phone company for compensation in depreciation value of land because the company has built a transmission tower to the neighbouring land shall

4. Damage and remedies

(a) How is damage defined and measured?

- 30 Hungarian Civil Code rests on the principle of full compensation: all unlawfully caused damage for which the tortfeasor is liable must be compensated regardless the nature of the harm. According to § 355 subpar. (1) and (4) of the Civil Code the tortfeasor who is responsible for the damage shall be liable for restoring the original state, or, if this is not possible or if the aggrieved party refuses restoration on a reasonable ground, he shall indemnify the aggrieved party for pecuniary and non-pecuniary damage. On the grounds of indemnification, compensation must be made for any depreciation in value of the property belonging to the aggrieved person and any pecuniary advantage lost due to the damage as well as the indemnity of the costs, which are necessary for the attenuation or elimination of the pecuniary and non-pecuniary loss suffered by the aggrieved person. From the principle of full compensation follows that all damage must be compensated regardless of the nature of the damage (i.e. whether it was *damnum emergens* or *lucrum cessans*, or whether the harm was caused in property, in person or it was an economic loss) or the degree of fault (provided it was imputable to the tortfeasor). There is no distinction between direct or indirect harm within the causation link; indirect cause also may be relevant. Hungarian court practice has found its limitation measures in order to optimize risk allocation in the complex concept of accountability and in causation instead of a doctrine based on pure economic loss or such a category. The concept of pure economic loss³² is not known in Hungarian tort law. Hungarian courts use the flexible concept of causation as a limitation measure for such compensation claims and they are inclined to cut off the causation link at losses deemed too remote. They use the concept of accountability to reduce the tortfeasor's liability to foreseeable losses or they simply solve the problem with the burden of proof regarding the causal link and the amount of the damage. The burden of proof is a very effective measure of risk allocation also regarding economic loss: the plaintiff has to prove that if the tortfeasor's conduct had not occurred, he certainly would not have suffered loss or with absolute certainty would have earned a certain profit. In

be assessed under general tort law rules. BH 2006. 184, Legf. Bír. Pfv. III. 20.852/2005. sz.

- 32 The main conceptual feature of pure economic loss is that it is a loss without antecedent harm to the plaintiff's person or property, which is not a consequential loss in the same patrimony in which property has been damaged and which is not the loss of the plaintiff, who as a person has been injured. Pure economic loss is "harm not causally consequent upon an injury to the person (life, body, health, freedom or other rights to personality) or to property (tangible or intangible assets)." Helmut Koziol: Compensation for Pure Economic Loss from a Continental Lawyer's Perspective [in: Wilhelm H. van Boom/Helmut Koziol/Christian A. Witting (eds.): Pure Economic Loss; Springer – Wien New York, 2004, ECTIL Tort and Insurance Law Vol. 9. 141, 141 ff.

most of the cases where the economic loss is a result of a complex causal link it is impossible to prove it.

- 31 „Ricochet loss”³³ was according to the illustration raised by *Eörsi*³⁴ a loss not to be compensated on the ground of its too remote character but a relative recent judgement of the Hungarian Supreme Court accepted this type of claim.³⁵ Another typical case of relational loss is where someone cuts off an underground cable while doing earthwork and caused a standstill in the energy supply or telecommunication (so-called cable cases). According to *Eörsi* in these cases the tortfeasor shall not be liable for all the losses of those who had been left without energy, telecommunication facilities etc. The limitation factors are the general risk in life (*allgemeines Lebensrisiko*), to which most of the harms and losses in these cases belong; the abnormal (unexpected) consequences; the disproportionality; and the remoteness of damage. The costs of restoring the energy supply are to be compensated such as the economic loss of the energy supplier itself (if it is not to be deemed as a normal risk inherent to the suppliers’ activity) but to the more remote losses the doctrine of normal loss is to apply and according to that, damages that are too remote are by no

33 Cases where a „physical damage is done to the property or person of one party and that loss in turn causes the impairment of the plaintiff’s right.” This is a three-players’ scene where a „direct victim sustains physical damage of some kind, while the plaintiff is a secondary victim who incurs only economic harm.”

34 *Eörsi* (1985) 62. According to him the employer sends his employee (a mechanic who has special skills in repairing certain machines) to a factory located in another part of the country. On his way to the railway station, a car runs down the mechanic. According to *Eörsi* the driver of the car shall be liable to the employee to compensate his lost earnings (salary etc. for the period he is unable to work) but not to the employer for the loss resulting from the stoppage of the factory because of the failure or further delay of repair. The reason of the limitation here is that the economic loss suffered by the employer is out of the normal consequences and was too unexpected for the tortfeasor.

35 A sales representative suffered a car accident which was caused negligently by another car driver. The sales representative was on his way to conclude an already prepared contract in the name of his employer (the plaintiff) with a business partner of theirs. The concluding of the contract failed because the accident prevented the sales representative from coming to the place of contracting. The Supreme Court ascertained that if the sales representative had concluded the contract in the name of his employee, his employee would have had a certain income. The Court held that the unrealised net income, which the employer would have had from the performance of the contract if the contracting had not been frustrated through the accident, is an economic loss of the employer. The driver who caused the accident of the sales representative has caused this economic loss. On this ground the Court held the driver liable for the economic loss of the employer and ordered the defendant (the insurer of the driver who caused the accident) to pay the lost net income as compensation to the plaintiff. BH no. 2001/273. Legf. Bir. Pfv. VIII. 20.295/1999. sz. It is remarkable that the defendant was the liability insurer of the tortfeasor and there is a tendency in the court practice that the courts are more willing to order compensation if the risk is shifted to an insurance company.

means to be compensated (the more remote the loss and lower the degree of negligence, the smaller the chance of compensation).³⁶

- 32 To the category of pure economic loss called „transferred loss” belong those cases where the harm caused to the primary victim is shifted to another person (the secondary victim). In these cases it is the contractual or statutory obligation which renders the secondary victim to take the loss of the primary victim on himself.³⁷ In Hungarian court practice and literature it is not a special tort situation. If the party is obliged to bear the loss (e.g. on the ground of insurance) of another, the right of recourse is usually statutorily (if the obligation is imposed by statute) or contractually provided to him.
- 33 The speciality of the type of pure economic loss „closures of public markets, transportation corridors and public infrastructures“ is that here the loss „arises without a previous injury to anyone’s property or person” and usually public restraints are in these cases involved.³⁸ There are not too many precedents for these type of cases but both the theory and the practice seem to be ready for the limitation of liability. In a case from 1964 a Hungarian court dismissed the claim of a plaintiff who claimed compensation of his additional costs from the use of a longer route when a road had been closed because of a car accident that had been caused by the defendant. The court pointed out that the defendant could not count with the possibilities of this harm.³⁹ According to an illustration of *Eörsi* if a bridge is wrecked because of the conduct of the defendant, the plaintiff shall not be compensated for the loss he suffers because of the traffic detour. The reason of the limitation in these cases is that the traffic may be detoured on very different reasons and its occurring is a normal risk which everyone has to bear as his own. *Eörsi* seems to share the view that in these cases the defendant shall be liable for causing the risk itself but not for the realization of it.⁴⁰

36 Eörsi (1985) 63 and 65.

37 Pure Economic Loss in Europe (ed. Mauro Bussani/Vernon Palmer, Cambridge University Press, 2003) 12.

38 Palmer/Bussani 12. Van Boom categorizes these cases as „interference with resources” and attaches here also the cable cases. See Wilhelm H. van Boom: Pure Economic Loss: A Comparative Perspective [in: Wilhelm H. van Boom/Helmut Koziol/Christian A. Witting (eds.): Pure Economic Loss; Springer – Wien New York, 2004, ECTIL Tort and Insurance Law Vol. 9. 1-40.] 26.

39 The decision was not a Supreme Court decision but a first instance decision, which has not been appealed by the plaintiff and as such may only be taken into account only with reservation as reference. F. Petrik (1991) 31.

40 Eörsi (1985) 65. If the person who has to use the diversion suffers damages in an accident cannot be compensated on the base that he would not have been involved in an accident if he had not been forced to use the alternative route, because the link of causation is abnormal and is outside of the ordinary probability 63.

- 34 There are cases where the aggrieved party suffers harm as a result of reliance on data, information or professional services of the tortfeasor in a situation where the tortfeasor provides the data, information or services on the basis of a contract with another party but not with the plaintiff.⁴¹ According to Hungarian tort law these cases seem to fall under the normal liability test without special limitations, at least as far as only a limited number of possible plaintiffs are involved. If the lawyer causes harm e.g. by composing an invalid contract he shall be liable toward his clients for breach of contract, towards other parties the lawyer shall be liable on the ground of torts.⁴² On the basis of the proportionality doctrine the compensation would be limited if the person who provided false information or caused harm otherwise to third parties outside the contractual relationship acted with a low degree of negligence. Presumably this would be the case if investors and market operators would sue the accountant who provided falsely calculated and published balance sheets which the buyers relied on before they decided to buy the shares.
- 35 To sum up pure economic loss is not a special type of damage (or loss) in Hungarian tort law and cases of pure economic loss are not addressed under a common heading in Hungarian tort law theory and practice. The cases known „pure economic loss” are causation problems. One cannot say that there is a general policy for restricting or rejecting claims in pure economic loss cases, albeit in theory and literature a strong limitation is suggested and such approach is followed – but not in every respect – by courts.
- 36 The court practice is consequent in that the amount of damages must be proven by the plaintiff,⁴³ and there is only possibility to award so called general damages if it is *per se* impossible to prove the amount of damages. If the plaintiff fails to prove the amount of damages (the exact loss) despite it being objectively possible the claim will be rejected.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 37 The question has two aspects: one regards the concept of damage, the other the problem of causation. In the context of the concept of damage, if the loss

41 Palmer/Bussani: 13. and see also: van Boom 19. A typical illustration here may be the facts of the English cases *Hedley Byrne & Co. v. Heller & Partners* [1964] AC 465 to the liability for negligent misstatements (See for detailed analysis: B.S. Markesinis/S.F. Deakin: Tort Law 3rd ed. Oxford, 1993, p. 86. et seq.) and to the liability for professional services toward third parties *White and Carter v. McGregor* [1962] All ER (CA) 413.

42 Eörsi (1966) no. 254.

43 BH2003. 249 (Legf. Bír. Gf. VI. 30.036/2002. sz.) EBH2001. 544 (Legf. Bír. Gfv. II. 30.016/2001. sz.) BH2000. 541 (Legf. Bír. Pfv. III. 23.402/1998. sz.) Supreme Court decisions.

of the farmer – e.g. the radical depression of business – is proven, it is a damage that may be recognized as compensable loss regardless of what the secondary underlying reason is behind that. Neither tort law regulation nor underlying doctrines allow such distinction if damage (loss) is proven. In the context of causation there is a distinction between the two situations. If there is an actual admixture, the causation is direct. If actual admixture is not proven but the reason of the business's depression is a customer's fear that his products are no longer GMO free the causation is indirect (more remote) since the cause of the loss seems to be more the fear than the existence of GMO cultivation in the surrounding area. In case of actual admixture the courts would be much more ready to award compensation than in cases of customers' fear that products are no longer GMO free.

(c) Where does your legal system draw the line between compensable and non-compensable losses? Are, for example, losses of farmers in a region covered where the crops of only one of them have been contaminated, but where consumers fear that the entire region is affected?

- 38 I think that it is not possible draw such a line between compensable and non-compensable losses in an abstract sense. In principle, all the damage shall be compensated that is in causation link with the tortfeasor's wrongful conduct except liability is limited on grounds of risk allocation policy. What may make a difference here again is that the loss of the farmer whose crops have been contaminated is a direct one, while the damage of others who suffer loss because of customers' fear is indirect. In cases of indirect causation courts may establish that causation is too remote and may limit liability even if in principle there is no distinction between direct and indirect causation. The more indirect causation is and the more vague the boundaries of risk and incalculable the losses are the more the courts would be willing to limit liability on grounds of too remote causation.

(d) Which are the criteria for determining the amount of compensation in general?

- 39 Since Hungarian tort law follows the principle of full compensation, the actual net damage and lost profits shall be calculated. On the other hand, the law does not allow overcompensation: to award compensation above loss would result in unjustified enrichment of the victim that shall be avoided. If the products become unmarketable, the lost profit shall be compensated. If there is depreciation in value but products are marketable, only depreciation shall be compensated. If there are costs of breach of contract (e.g. penalty has been paid) it must be compensated as well.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 40 There is no financial limit to liability in Hungarian tort law (neither in general nor for the specific cases covered by this project). There is, however a possibility to mitigate damages once liability is established: according to § 339 subpar. (2) of the Hungarian Civil Code the court may mitigate the tortfeasor's obligation to pay damages on equitable grounds. This may be done on discretionary basis. Since this possibility is not actually applied in court practice there are no guidelines or principles which could be formulated to give a picture on court practice regarding this provision. Since equity is not accepted as a general clause (neither as a general principle) in Hungarian private law, it is very hard to give a correct possible content of this rule.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 41 Such duty is only under specific regulation and for activities specified in regulation such as compulsory third party insurance of motor vehicle operators or an obligation to provide security for those who pursue an activity that may cause environmental damage under environmental protection legislation. For gene technology activity there is not such compulsory insurance.

(g) Which procedures apply to obtain redress in such cases?

- 42 There is no specific procedure to obtain redress in areas where such a system is working. Redress is covered by insurance law regulation or under general rules of private law.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

- 43 There are no general compensation schemes that may provide useful information for this project.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 44 There is no specific regulation covering these costs in Hungary yet. There is general regulation for fees to be paid for official food control [Ministerial Decree no. 89/2005 (X.11.) FVM-EüM-ICsSzEM-PM]. The whole regime in

Hungary for regulation of producing and distributing GMO products is relatively new; the detailed procedure for permitting and monitoring such activities has been coming into force in the last two years.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 45 I do not know any industry-based rule covering this. The general rule is that if someone wants to get a qualification for a product or to get permission for putting into circulation a product and it is necessary to prove that it does not contain any GMO the costs must be borne by him. There is not any state or private funds for covering such costs.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 46 I do not know any specific regime for providing right of recovery of costs if the tests prove actual GMO presence.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 47 There are no special jurisdictional or conflict of laws rules in force (neither do I know whether there are any planned as yet) which apply to harm of the kind described in the introduction to this questionnaire. I think that such a regulation would come with a specific national regulation.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 48 The general rules of private international law and the law applicable to torts would be applied. According to § 32 of Law Decree No. 13 of 1979 on Private International Law for non-contractual liability the law according to the place and time of the tortfeasor's conduct or omission shall be applied. If it is more advantageous to the victim, the law of the state shall be applied where the harm occurred. If the tortfeasor and the victim are resident at the same state, the law of this state is to be applied. If the parties ask for disregarding the applicable law, the Hungarian law shall be applied (§ 9 of the Law Decree).

12. IRELAND

Raymond Friel

I. Introduction

- 1 There is no specific liability regimen with respect to GMOs in Ireland, nor is there any pending legislation to create such a unique system of liability. Whilst legislation exists to provide for the extensive regulation of GMO production in accordance with European provisions,¹ the basis of liability for harms arising from GMO production is primarily that of the law of tort as found in the common law. In brief, liability for the escape of GMOs that might cause harm to non GMO production can be based on actions in nuisance, negligence or the doctrine of *Rylands v Fletcher*, none of which provides an absolute or certain remedy. In fact it is likely that the common law provides no satisfactory remedy for such events, both due to procedural and substantive limitations within the legal process. Procedurally, it will be difficult to establish a sufficient causal nexus between any potential harm arising from the escape of the GMO. Substantively, none of the legal actions outlined really provide comprehensive coverage to a plaintiff, either because contamination of neighbouring crops with GMOs does not constitute a breach of the duty between plaintiff or defendant or even where it does constitute a breach, the harm suffered is most likely of a type which is not compensatable.

II. General Liability

1. Statutory Regulation

- 2 Before outlining in detail the possible common law actions that might be available for the release of GMOs into the environment, it is important to make the point that although the existence of the regulatory framework for GMOs does not provide a framework for liability, it is also clear that where these regulations have not been complied with, both the government agency² and the originator of the GMO may be liable for breach of statutory duty. This potential action does not provide a framework for liability in its own right. However, it can be used to found liability as part of the general system of tort liability. For breach of statutory duty to be actionable where the statutory provision itself does not make breach actionable, then „where an obligation is created but no mode of enforcing its performance is ordained, the common

¹ SI No 73/2001 Genetically Modified Organisms (Contained Use) Regulations 2001.

² Under the SI, the Environmental Protection Agency is the designated government agency with responsibility.

law may, in general, find a mode suited to the particular nature of the case.”³ In *M’Daid v Milford Rural District*⁴ the Irish courts have held in order to be actionable the plaintiff must be (i) a member of the class that the statutory provision was designed to protect and (ii) have suffered harm over and above that incurred by other members of that class.⁵ This will require a judicial interpretation of the class being protected by the legislation. If the court views that the GMO statutory provisions are designed to protect the general public and not specifically the farming community, no liability will attach for a breach of these provisions.⁶ In truth, given the explanatory memorandum to the statutory instrument, combined with the European rationale for the legislation, it seems clear that the intent is to protect the general public and is not confined to specific classes therein. Given that, it is submitted that at this point in time, an action for breach of statutory duty in this area is not sustainable.⁷ In that event only the standard common law actions are pertinent to the problem at hand. It is these which will be dealt with in detail.

2. Causation

(a) Causal link

- 3 The establishment of a causal link, whether the action is based on nuisance, the rule in *Rylands v Fletcher* or negligence, remains fundamentally the same. The plaintiff must establish that the acts of the defendant caused the harm arising to the plaintiff. This requires that the evidence show that the harm was caused as a matter of fact by the defendant. The standard test is the so-called ‘but for’ test: would the harm not have occurred ‘but for’ the actions of the defendant. In *Barnett v Chelsea and Kensington Hospital Management Committee*⁸ despite the proven negligence of the hospital, the case was dismissed when it was revealed that the plaintiff would have died even if the hospital had not been negligent. The facts had failed the ‘but for’ test with respect to the hospital’s negligence. Similarly, in *Kenny v O’Rourke*⁹ although the plain-

3 Doe d. Bishop of Rochester v Bridges (1831) 1 B&Ad 847, 849; [1824] All ER Rep 167, 170.

4 [1919] 2 IR 1.

5 The modern English formulation uses these criteria as alternatives, whereas the Irish judgment appears to use them as cumulative. The better view is that the criteria are cumulative in an Irish setting, absent any Irish court pronouncement on more recent English jurisprudence, but cf Quill, TORTS IN IRELAND, 2nd ed, pp 132-140.

6 *Daly v Greybridge Co-operative Creamery Ltd* [1964] IR 497; see also *Atkinson v Newcastle & Gateshead Waterworks Co* (1877) 2 Ex D 441.

7 Even if that is not the case the plaintiff in such a case will have difficulty in establishing the second criteria, namely that he has suffered harm over and above that suffered by others in the class. The plaintiff essentially must establish that the harm he or she has suffered is ‘different’ from others in the class, a difficult burden on likely GMO facts.

8 [1969] 1 QB 428.

9 [1972] IR 339.

tiff had fallen from a defective ladder, the defendant manufacturer was held not liable where the reason for the fall was that the plaintiff had leaned over too far from the ladder.

- 4 Where there are a number of potential causes which gave rise to the harm and the plaintiff is unable to establish with certainty which of them caused the harm, then the plaintiff may rely upon the decision of *Fairchild v Glenhaven Funeral Services*¹⁰ In this case the House of Lords held that where the sources of risk are of the same nature or type each could be held to be a cause of the harm, essentially creating a rule of law that a material increase in risk of harm gives rise to legal causation although it is impossible to prove factual causation. Although there is no Irish case directly on point,¹¹ such a rule would prove immensely beneficial in cases involving GMOs since it may be impossible to prove factual causation between different sources of GMO transmission. The rule in *Fairchild* would enable a plaintiff to establish cause simply by showing that the defendant's actions materially increased the risk of harm, without establishing that the defendant's acts were the 'but for' cause of the event. Whether or not *Fairchild*, with its far reaching implications across the broad spectrum of tort actions, will be followed in Ireland remains to be seen.
- 5 It should be noted that while proving factual causation is essential, it is only the first stage in establishing legal liability. Liability may be denied if the factual cause is considered too remote. Remoteness essentially covers legal causation. Although the defendant may be the factual cause of the harm, not every such cause will give rise to liability. At some point the gap between the cause and the harm is such that the law will not impose liability. The application of legal causation is complex since it involves issues of policy, justice and fair play. It also requires a very concise analysis of what harm the plaintiff is claiming has occurred.
- 6 The traditional formulation for remoteness was the so-called direct consequence rule outlined in *Re Polemis*.¹² Under this formulation the test was whether or not a reasonable person would have foreseen any damage to the plaintiff. If so, then the defendant would be liable for all damages arising as a direct consequence of his or her acts, even if a reasonable person would not have foreseen such consequences. Reasonableness therefore goes towards culpability not consequences or compensation. This formulation was criticized and no longer appears to represent good law.

10 [2003] 1 AC 32.

11 Although see an earlier case of *Best v Wellcome Foundation* [1993] 3 IR 421 which seems to cast doubt on any such rule of law, preferring instead to rely upon the traditional principles of causation; see generally Quill, *TORTS IN IRELAND*, 2nd ed. 2004.

12 [1921] 3 KB 560.

- 7 In *The Wagon Mound*¹³ the court held that the better test was that the defendant would be liable for all damage that could have been reasonably foreseen as arising from the defendant's actions. This places reasonableness at the heart not only of culpability but also consequences and compensation. It appears that this approach is to apply not merely in negligence actions but also in nuisance.
- 8 There are a number of points that arise from the rule in *The Wagon Mound*. First, it is not necessary that the exact extent or form of the damages be reasonably foreseen. All that is required is that the harm foreseen falls within the general range of that which occurred. Second, the defendant will be liable even where the harm caused is of a significant and unusually high pecuniary value and the defendant cannot claim that such damage could not have been reasonably foreseen. Third, the test is modified by the egg shell skull rule. Under this rule, the defendant must take his or her victim as they find them and the defendant cannot argue that the plaintiff's condition was unforeseeable. Finally, *novus actus interveniens* can operate to break the chain. *Novus actus* occurs where there is an intervening act either from a natural event or from the act of a third party or indeed the plaintiff, which is of a sufficient nature to end the liability of the defendant.
- 9 Where a GMO escapes into the environment the question will be whether or not such an escape gives rise to any reasonably foreseeable harm to its neighbours. If it does, it will not matter whether or not the harm suffered may be greater because the plaintiff is, say, an organic farmer. But as a corollary, it is insufficient to establish that the escape of the GMO presents reasonably foreseeable harm to organic farmers only. The true question is whether the escape itself can give rise to foreseeable harm. In essence however, this remains an issue of policy. Doubtless, the existence of a GMO farm in the midst of an area of organic farming will give rise to reasonably foreseeable harm from an escape but where the GMO farm is located in a traditional farming area, then the escape of GMOs will not necessarily give rise to foreseeable harm. Moreover, mandatory requirements to label general produce with the amount of GMOs contained may further alter this picture and provide reasonably foreseeable harm for the escape of GMOs which contaminate traditional farming produce.

(b) *Burden of Proof*

- 10 The burden of proof in causation lies on the plaintiff as the assertor of the wrongdoing.¹⁴ The plaintiff must establish factual cause on the balance of probabilities, that is to say that the plaintiff's assertion is more likely to be true than not. Where there is an alternative possibility that can equally explain

¹³ [1961] AC 388.

¹⁴ *Hanrahan v Merck, Sharpe and Dohme* [1988] ILMR 629, 634-5.

the cause of the events, the court has held in *O'Reilly Brothers (Quarries) Ltd v Irish Industrial Explosives*¹⁵ Ltd that the plaintiff has not discharged his or her burden of proof. In that case, the court was of the opinion that the cause of the harm could equally have arisen from the defendant's explosives or from abnormalities in the rock into which the explosives were being inserted.

- 11 In rare circumstances, the burden of proof can switch to the defendant; in particular the doctrine of *res ipsa loquitur* can be used in negligence actions to require the defendant to disprove his or her negligence. Simply put, the doctrine of *res ipsa loquitur* permits the court to draw an inference of negligence against the defendant without requiring the plaintiff to prove all the necessary details. The doctrine requires that (i) the thing causing the damage is under the control of the defendant and (ii) that the events complained of would not have occurred in the ordinary course of things without negligence.
- 12 In *Lindsay v Mid-Western Health Board*¹⁶ a child went into hospital to have her appendix removed and never recovered consciousness. In adopting the *res ipsa* principle, the court seemed to suggest that the principle would not merely remove the burden of proof with respect to negligence but also the requirement to establish any causal link. If that is the case it represents a significant extension in Irish law to the traditional view of *res ipsa*. Although the subsequent case of *Quinn v South Eastern Health Board*¹⁷ appears to confirm this extension to cover not merely negligence but cause, Murphy J in *Cosgrove v Ryan*¹⁸ specifically limited the application to issues of negligence. In the absence of a definitive view from the Supreme Court, the issue remains clouded. From the perspective of GMO liability, if the doctrine were to remove the need to establish causal factors, then the application of this doctrine would immensely strengthen the hands of the plaintiff.
- 13 For *res ipsa* to apply, the plaintiff must show that the defendant is in control of the events. Thus in *Easson v LNE Rly*¹⁹ the court held that the corridors of an express train from London to Edinburgh could not be said to have been under the control of the railway operator and the accidental opening of a door could have been caused by the interference of other passengers as much as through the actions of the railway company. Even if control by the defendant is proven, it requires that the acts complained of would, in a common sense way, not have happened other than through the negligence of the defendant. Thus two trains belonging to the same railway company will not normally collide without negligence on the part of the company.²⁰ From the perspective of

15 Unreported SC, 27 February 1995.

16 [1993] 2 IR 147.

17 Unreptd HC 22 March 2002.

18 [2003] 1 ILRM 544.

19 [1944] 2 KB 421.

20 *Skinner v LG&SC Rly* (1850) 5 Ex 787.

GMOs a defendant may argue that once planted, a GMO is no longer sufficiently under the control of the defendant, inasmuch as that its escape may arise from natural acts over which the defendant is helpless. If the argument succeeds, and there is merit to it, then the doctrine cannot apply and the burden of proof will remain with the plaintiff.

- 14 It is important to understand that the effect of the doctrine is simply to create an inference of negligence such that, in the absence of rebuttal by the defendant, the court is entitled to make a finding of negligence without any further evidence. A number of points need to be noted. First, the doctrine is permissive, not mandatory. It is perfectly possible for a court to hold that notwithstanding the doctrine, the plaintiff has failed to satisfy the burden of proof despite the inability of the defendant to rebut the inference of negligence.²¹ Although this is unlikely, it is possible. Second, it is open to the defendant to present evidence that the cause of the events arose other than through their negligence: for example, by the deliberate act of a third party. However, the burden facing the defendant is considerable once an inference of negligence has emerged. In *Henderson v Henry E Jenkins & Sons*²² the defendant proved that a brake hose pipe had been regularly visually inspected and maintained. It had failed due to a flaw that was only discoverable if the hose pipe had been removed and inspected internally. Neither the manufacturers nor the relevant state agencies required such removal. The court held that the defendant had not rebutted the inference of negligence since it had not produced additional evidence to show that nothing abnormal had occurred in the life of the vehicle that would have led to the extensive internal corrosion of the hose pipe.

(c) Multiple Causes

- 15 Where it is suggested that there is more than one cause to the harm, much hinges upon whether the causes of harm arise from tortious acts or other acts, such as the vicissitudes of life. In *Baker v Willoughby*,²³ the plaintiff suffered injury to his leg as a result of the first defendant's negligence. Before the trial however, the plaintiff was a victim of an armed robbery during which he lost the injured leg. At trial the first defendant sought to have the quantum of damages limited to the period between the injury arising to the leg and the leg being amputated. The House of Lords rejected this argument holding that the removal of the leg arose from two concurrent causes: the injury by the defendants and the wound by the armed robbers. However, the ruling in this case has been undercut substantially by the subsequent case of *Jobling v Associated Dairies*.²⁴ In that case the plaintiff suffered an injury to his back due to

²¹ *Ng v Lee* [1988] RTR 298 holding by the Privy Council that the doctrine does not shift the burden of proof but simply provides for an inference of negligence.

²² [1970] AC 282.

²³ [1970] AC 467.

²⁴ [1982] AC 794.

the negligence of the defendant. However, again before the case came to trial, the plaintiff was diagnosed as suffering from a condition known as myelopathy. The court held that this was a vicissitude of life such as to supervene the defendant's negligence. Even if the plaintiff had not suffered as a result of the defendant's negligence he would still have contracted the myelopathy. To hold the defendant „in this situation, liable to pay damages for a notional continuing loss of earnings attributable to the tortious injury, [would be] to put the plaintiff in a better position than he would have been if he had never suffered the tortious injury.²⁵”

- 16 There has been some debate over whether or not the two cases can be distinguished on the basis that *Baker* concerns successive tort actions which can be treated as concurrent causes whereas *Jobling* concerns a tort action followed by a non-tortious act, where the subsequent event operates to break the causal link. In *L v Minister for Health and Children*²⁶ prior to 1983 the applicant was infected with Hepatitis C during treatment for a moderate case of Haemophilia A. In 1997 the applicant was involved in a serious road crash requiring the amputation of a leg. The court held that a tort should not be regarded in the same manner as a vicissitude of life.
- 17 For GMO purposes the principle difficulty will be establishing the source of the GMO contamination since, while the origin of the harm will almost certainly come from within all GMO producers, establishing which particular producer is the causal source of the harm will be exceptionally difficult if not impossible. Mere proximity with the plaintiff can hardly be said to be determinative given the possible methods of transmission. However the Civil Liability Act 1961, s 11(3) provides that „where two or more persons are at fault and one or more of them is or are responsible for damage while the other or others is or are free from causal responsibility but it is not possible to establish which is the case, such two or more persons shall be deemed to be concurrent wrongdoers in respect of the damage.” Essentially this means a plaintiff may join all GMO producers, thus rendering them all liable despite the inability to prove cause against all of them. Whether such an approach is sustainable remains untested and s 11(3) has had little practical application in Irish courts. However, the potential is there.
- 18 Where a defendant is found to be the cause, both in fact and at law, for some of the harm to the plaintiff, then he or she will be jointly and severally liable for the full damages owed to the plaintiff, including those caused by his or her co-defendants.

25 [1982] AC 794, 820.

26 [2001] 1 IR 745.

3. Standard of Liability

- 19 There are a number of possible grounds for liability attaching to the accidental escape of a GMO into non-GMO production:

I. Nuisance

II. Rylands v Fletcher

III. Negligence.

Each cause of action will be dealt with in more specific detail.

(b) *Nuisance.*

- 20 Nuisance is divided into two categories, public and private nuisance.
- 21 Public nuisance concerns actions that affect the lives of a class of people, whereas private nuisance covers those acts that unlawfully interfere with the use or enjoyment of land, or some right over or in connection with it.
- 22 Although generally, public nuisance is a criminal action, the Attorney-General may at his absolute discretion, following information received from a member of the public, seek a private injunction against the defendant, in what is known as a relator action.
- 23 Moreover, in public nuisance, a plaintiff may sue in tort provided that they can establish particular damage over and above that which has been suffered by the public at large. The distinction is best illustrated in the case of *Tate & Lyle Industries v GLC*²⁷ where silting of a river bed, which was caused by the defendant's actions, resulted in the plaintiff's large vessels being unable to access a jetty until the riverbed was dredged. The plaintiff's action in private nuisance was dismissed because they had no private right in the river bed. However, their action in public nuisance succeeded since there was a public right to safe navigation of the river and they had suffered more than the ordinary public.
- 24 There are therefore significant overlaps between an action in private nuisance and one in public nuisance giving rise to particular damage to the plaintiff. Moreover it is often the case that the same set of facts may give rise to a liability in both public and private nuisance actions. However, the key element is that a public nuisance does not require the plaintiff to have any interest in the land whereas, with exceptions, the plaintiff must establish an interest in the land in private nuisance actions.

27 [1983] 2 AC 509.

- 25 It is not appropriate to talk about liability in nuisance as being either strict, absolute or fault based, although its closest approximation is that of strict liability. The basis for liability in nuisance is whether the conduct of the defendant has been reasonable or not. Living in an organized group such as modern society requires some degree of compromise and so it is not every act of the defendant that interferes with the rights of the plaintiff that will give rise to liability. The test is first, whether the interference is excessive by any standards and second, if the interference is not so excessive, whether the defendant has taken reasonable steps to reduce as far as possible the level of interference with the plaintiff's rights. If the interference is excessive by any standards, then the fact that the defendant has taken all reasonable care provides no defence. On the other hand, whether the defendant has taken sufficient steps to reduce the interference is based on what is reasonable in all the circumstances. Although there is no universal formula that will dictate whether the steps taken have been reasonable, there are a number of criteria through which it can be analysed:

(ii) Nature of the locality

- 26 In *Sturges v Bridgman*²⁸, the court held that „*What would be a nuisance in Belgrave Square would not necessarily be so in Bermondsey*”²⁹ This is not to say that the nature of the locality is immutable. Thus for example, in *Gillingham Borough Council v Medway (Chatham) Dock Co. Ltd*³⁰ the court held that planning permission for the establishment of a commercial dock which was to operate on a round the clock basis was sufficient to change the nature of the locality and thereby dismissed the claim for public nuisance arising from the heavy goods vehicles that caused serious disturbance to a nearby residential neighbourhood. Although the planning permission was not equivalent to statutory authority it was sufficient to alter the nature of the locality and the nuisance had to be adjudicated in that light.
- 27 In *O’Kane v Campbell*³¹ the court held in favour of the plaintiff for nuisance arising from a 24 hour shop located at the intersection of a busy thoroughfare and a quiet residential street. It appears that the court was swayed by the spill over from the thoroughfare to the residential street, which was caused exclusively by the defendant’s operation.
- 28 As was observed earlier with respect to remoteness of damage in the causal section above, the introduction of GMO production in an area dominated by organic farming will clearly provide a locality issue. On the other hand, the introduction of GMO production into a locality where both traditional and or-

28 (1879) 11 ChD 852.

29 Ibid, at 865.

30 [1993] QB 343.

31 [1985] IR 115.

ganic farming takes place will create a completely different locality issue. Moreover there is an argument that once GMO production has been established within the jurisdiction, this itself, given the potential transmission possibilities, creates the entire jurisdiction as a single locality.

(iii) Utility of the defendant's conduct

- 29 Although there are limits to this, it is a matter of common sense that the lower the utility of the defendant's conduct, the more likely that an action in nuisance will succeed. Thus, the rattle of an early morning delivery of milk by the milkman is of a qualitatively different nature than the same amount of noise made by drunken neighbours. Courts are nonetheless generally slow to sanction such interference based on the utility of the defendant's conduct alone since it cannot be right that an individual should carry the burden of the nuisance for the benefit of society in general. In one extreme case, *Bellew v Irish Cement Co*³² the Irish court ordered the closure for three months of the only cement factory in Ireland despite a chronic need for cement for domestic building. For GMO production, questions of utility encapsulate issues of policy in a way not previously found in nuisance actions. Is GMO production useful, or is its usefulness outweighed by the potential risks? To date the courts have not had to decide upon this.

(iv) Abnormal Sensitivity

- 30 Generally speaking, no account is taken for the abnormal sensitivity of the plaintiff. Thus in *Robinson v Kilvert*³³ the court dismissed a claim of nuisance by stating that „...a man who carries on an exceptionally delicate trade cannot complain because it is injured by his neighbour doing something lawful on his property...” However, liability may arise if the defendant fails to take reasonable and practical precautions to avoid the damage without appreciable prejudice to his own interest.³⁴ Where nuisance is established, damages will extend to delicate and sensitive operations.³⁵
- 31 It is probably apposite to note in a context of liability for GMOs, that there is no liability in nuisance for so called historic pollution, that is where the act complained of was thought to be harmless but which subsequent investigation has found to be otherwise. In *Cambridge Water*³⁶ the court dismissed the case against the defendants for contaminating the ground water since at the time, there was no scientific knowledge that the contaminant, PCE, was not readily soluble in water, after all it readily evaporated harmlessly into the air. Note

32 [1984] IR 61.

33 (1889) 41 ChD 88.

34 *Gandel v Mason* [1953] 3 DLR 65.

35 *McKinnon Industries v Walker* [1951] 3 DLR 577.

36 *Cambridge Water Co v Eastern Counties Leather plc* [1994] 2 WLR 53.

also that where the danger has been created innocently by the defendant, he or she will not be liable for any subsequent harm where the danger remains on the defendant's land. Thus in the *Cambridge Water* case there can be no liability for the PCE in the groundwater, since this was now a state of affairs that had passed beyond the control of the defendants.

- 32 There are a number of specific defences to an action for nuisance. Where the nuisance arises by an Act of God, such as severe weather, then this is likely a defence.³⁷ However, to qualify as an Act of God, the event claimed of must be of an exceptional and unprecedented nature.³⁸ Consent as distinct from tolerance of a nuisance is also a defence.
- 33 Further, the defendant may try to claim that the nuisance arises from matters outside of his or her control, although the experience has been that the courts have been reluctant to provide a generous application to this defence. Thus in *Goldfarb v Williams & Co*³⁹ the court held a landlord liable in nuisance where the second floor of the premises had been rented to a nightclub whose noise caused harm to other tenants. The court stated that the nuisance arose as an inevitable consequence of using the premises for which it had been let. Likewise in *O'Kane v Campbell*⁴⁰ the court held the defendant shopkeeper liable for the nuisance caused by his customers. Thus it seems that in an action for GMO liability, it is no defence that the defendant landowner did not originate the nuisance (e.g. the land was leased to another) provided that the escape of the GMO and resultant harm is an inevitable consequence of the use to which the land has been put.⁴¹
- 34 From the perspective of GMOs, in *Allen v Gulf Oil Refining Ltd*⁴² the court confirmed a defence of statutory authority. In essence, this defence operates where the defendant can establish that the nuisance arises as a natural consequence of the authorized activity.⁴³ However the defence is not absolute: it will only apply where the defendant can establish that the nuisance could not be avoided by the exercise of all reasonable care. However, in *Marcic v Thames Water Authority*⁴⁴ the court held that where a statutory obligation was placed on the defendant then the law on nuisance could not impose obligations inconsistent with that statutory obligation. Although the case can be read *sui generis*, or more likely confined to those situations where the defendant is under a positive statutory obligation to undertake certain activities, some of

37 *Transco v Stockport MBC* [2004] 1 All ER 589.

38 *Greenock Corporation v Caledonian Rly* [1917] AC 556..

39 [1945] IR 433.

40 [1985] IR 115.

41 Note that this is different from the issue of control referred to in the doctrine of *res ipsa loquiter* discussed above in the causation section.

42 [1981] AC 1001.

43 *Manchester Corporation v Farnworth* [1930] AC 171.

44 [2003] 3 WLR 1603.

the judgments seem to go beyond this. In particular, Lord Nicholls indicated that once a parliamentary scheme had been introduced then parliament had undertaken the necessary balancing of competing interests such as to render an action in nuisance inappropriate.

(c) *Rylands v Fletcher*

- 35 Nuisance is closely related to a similar doctrine known as *Rylands v Fletcher*. In fact one view is that nuisance relates to an ongoing state of affairs whereas the rule in *Rylands* operates for a single act.⁴⁵ Whether or not this is a fully accurate description, it is true to say that *Rylands* actions almost always concern single events. It is particularly appropriate where the harm is not foreseeable and this is much more likely when dealing with a single event than when dealing with an ongoing state of affairs.
- 36 In the case of *Rylands v Fletcher*⁴⁶ the defendant was constructing a water reservoir for his mill. During the course of excavations, the defendant became aware of mine shafts that were blocked with earth. Unbeknownst to the defendant, these mine shafts linked up with the mine shafts of the plaintiff, his adjoining neighbour. When the reservoir was filled with water, the pressure blew the earth free and flooded the plaintiff's mines. As an action in nuisance, the plaintiff could not succeed. The harm, both in terms of culpability and consequence, was not foreseeable. Nonetheless, the court held for the plaintiff rendering the defendant liable. The basis for liability was a distinct action from nuisance and, as the facts indicate, was based on strict liability. Essentially, the doctrine states that any one who „for his own purposes brings on his lands and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril, and if he does not do so, is prima facie answerable for all damage which is the natural consequence of its escape.”⁴⁷ Over time, the doctrine has been confined to the collection of things that constitute a non-natural use of the land and does not cover those things which would naturally be collected on land. Thus for example in *Rickards v Lothian*⁴⁸ the court held that ordinary domestic water supply was not a non-natural use of land, whereas in *Rylands* itself, the creation of a water reservoir was held to constitute a non-natural use. In the Irish case of *Victor Weston (Eire) Ltd v Kenny*,⁴⁹ the plaintiff occupied a floor of the building owned by the defendant. The defendant had retained the floor above the plaintiff. The plaintiff's floor was flooded from an escape of water from the ordinary water supply to the floor above the plaintiff which was under the control of the defendant. The court held that the defendant was not liable in these circumstances. Although the

45 A-G v PYA Quarries Ltd [1957] 2 QB 169.

46 [1868] LR 3 HL 330.

47 Taken from the Court of Exchequer decision, reported at (1866) LR 1 Ex 265, 279-280.

48 LR 1 Exch 265.

49 [1954] IR 191.

case could have been decided by following the ruling in *Rickards*, the court instead based its judgment on the fact that the plaintiff had implicitly consented to the bringing of the water supply into the building and the defendant had not been negligent in its escape.

- 37 The status of the doctrine has been in dispute. Although the courts have held that the doctrine emerged as the application of a general rule of strict liability in nuisance actions involving an isolated incident,⁵⁰ there is still general agreement that it now stands as an independent cause of action, alongside nuisance.⁵¹ However, the number of successful claims under *Rylands* has been very small since its inception.
- 38 The major difficulty in establishing an action under *Rylands* lies in proving non-natural use. In *Transco v Stockport MBC*, Lord Bingham held that a plaintiff who can establish that the defendant has brought or kept „on his land an exceptionally dangerous or mischievous thing in extraordinary or unusual circumstances is ... entitled to recover compensation ... without the need to prove negligence.”⁵²
- 39 Whether GMO production constitutes an ‘exceptionally dangerous or mischievous thing’ is open to debate, and in fact is at the core of the argument on GMO production. Courts may be slow to resolve this issue since it straddles the line between law and policy. In such a contentious policy area, Irish courts are more likely to avoid a direct application of the doctrine. One argument that may be more viable is where the introduction of GMO production is unique within a given area. In that manner, its uniqueness, particularly in an area where organic farming is prevalent, may constitute an exceptionally dangerous or mischievous thing. As GMO production becomes more common, it is less likely that this will be the case.

(ii) Defences

- 40 Although liability in *Rylands* is termed strict, there are a number of defences that might arise. First, statutory authority may render the defendant immune from liability under *Rylands* unless the statute expressly states otherwise. This is wider than the defence under nuisance, since it would cover not merely situations where there is a statutory obligation on the defendant but would extend to include those circumstances where the activity is licensed either generally or specifically. Provided the defendant operates within the ambit of the authority, then liability will be confined to that given under the statutory authority, provided there is no negligence.

50 *Cambridge Water Co v Eastern Counties Leather plc* [1994] 2 WLR 53.

51 *Transco v Stockport MBC* [2004] 1 All ER 589.

52 [2004] 1 All ER 589 at 597.

- 41 Acts of God or other third parties will also operate to exclude liability under *Rylands*. In *Carstairs v Taylor*⁵³ the court held that the doctrine would not apply where the escape occurred due to a rat gnawing a hole in a wooden box. However, the acts of the third party must be unforeseeable. If the act of the stranger could reasonably have been foreseen, the defendant will still be liable.⁵⁴
- 42 In *Nichols v Marsland*⁵⁵ an exceptionally heavy rainstorm was determined to be an Act of God which avoided liability in *Rylands*.
- 43 Neither Act of God, nor third party intervention, at least where such third party is an act of nature, is likely to provide any comfort for a defendant GMO producer.

(d) *Negligence*

- 44 An action for negligence requires that the plaintiff establish a duty of care exists between the plaintiff (either personally or one which applies to a class of persons of whom the plaintiff is one), that the defendant has breached the standard of care in the relationship and that this breach has given rise to a compensatable harm. Each of these elements will be discussed in further detail in the context of GMO liability.
- 45 Establishing a duty of care between the plaintiff and defendant is based on the classic formulation in *Donoghue v Stevenson*.⁵⁶ The judgment of Lord Atkin states that a duty of care arises when „persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called into question.⁵⁷” Although the elaboration of this principle has proved somewhat problematic, it is clear that establishing a duty of care requires foreseeability of harm and proximity of relationship combined with policy considerations. Negligence actions, although treated as a homogenous group, therefore, tend to arise *sui generis* on their particular facts. Thus while there is sufficient precedent to hold that a lawyer owes a duty of care to a client, the existence of a duty of care in novel situations requires argument by analogy.
- 46 The closest analogy with respect to GMO liability arises from an Australian case, *Perre v Apand Pty Ltd*⁵⁸ where the defendant farmer introduced bacterial

53 (1871) LR 6 Ex 217.

54 *Northwestern Utilities v London Guarantee and Accident Co Ltd*. [1936] AC 108.

55 (1876) 2 Ex D 1.

56 [1932] AC 562 580 (HL).

57 *Ibid*, at 580.

58 [1999] HCA 36, 165 ALR 606.

wilt onto the farm of the plaintiff. The court held that there was a duty of care owed by the defendant to those potato farmers within a 20 mile radius of the defendant's property. The duty was not easy to establish, and the court held that the duty could not be owed to the entire world. Instead, it limited the duty to a class of persons who were exposed to the direct consequences of the acts of the defendant: namely, those farmers who had previously exported their potato harvest to Western Australia but were now unable to do so because Western Australia forbade the importation of potatoes from farms which were within 20 miles of land infected by bacterial wilt. One of the primary difficulties facing a plaintiff in a negligence action will be to establish the limits of the defendant's duty of care. In *Apand*, the issues of foreseeability, proximity and policy result in a highly technical drawing of the duty. One should note that the duty did not extend to all land within a 20km radius, only that land on which potatoes were grown. In addition, the duty was further limited to the potatoes which were grown for export to a specific region.

- 47 Of course, even if the plaintiff can establish a duty of care, there is no liability unless he or she can also establish that the duty of care has been breached through the negligence of the defendant.
- 48 The defendant is not expected to guard against every conceivable type of risk but instead is required to meet certain minimum standards, normally based on the standard practice recognized within the industry. Thus a GMO farmer will be held to account to a standard common to similar GMO farmers. Compliance with industry standards and statutory provisions will all help rebut an argument that the defendant has breached the duty of care, but this evidence is not determinative. Thus even if the defendant has complied with legislative provisions, he or she may still be found to be in breach of the duty of care to the plaintiff.⁵⁹ In *Hamilton v Papakura DC*⁶⁰ the defendant's weedy spray had contaminated the town water supply, which had then poisoned the plaintiff's tomatoes. In dismissing the negligence claim, the New Zealand Court of Appeal held that there were no grounds upon which the damage that occurred could have been foreseeable. Essentially, although the plaintiff might be able to establish a duty of care, he was unable to establish that the duty had been breached since the harm was not within reasonable contemplation.
- 49 Finally, the plaintiff must establish that he or she has suffered harm. This is not as clear as might be imagined. Although actions in negligence readily recognize physical and psychological harm, courts have been slow to recognise pure economic loss. It should be noted that if there is any physical harm, then consequential economic loss is recoverable. However, in the absence of any physical harm, pure economic loss such as might arise where an organic farmer cannot label his produce as organic because of GMO contamination is

59 *Geddis v Proprietors of the Bann Reservoir* (1878) 3 App Cas. 430.

60 [2000] 1 NZLR 265.

probably not compensatable. This will be discussed in more detail in the remedy section.

4. Damage and Remedies

- 50 The primary remedies available for all of the tort actions mentioned above are
- (i) Damages: payment of monetary compensation for harm suffered, and
 - (ii) the injunction: a court order requiring that the defendant cease and desist the harmful activity.

(b) Damages

- 51 Damages in a tort action are calculated on the basis of restoring the plaintiff to the position he would have been in had the tort not occurred. To be actionable the plaintiff must prove actual harm, although in nuisance actions, the inference of harm arises without the need to show proof. In many ways this means that nuisance is actionable *per se*.⁶¹ The general calculation of damages in tort law therefore is based on loss arising to the plaintiff. In GMO cases, the calculation of likely losses would include but not be limited to diminution of crop value due to contamination, additional costs involved in satisfying any labeling requirements applicable to the crop, the costs of removing the contamination (if possible) and so forth. However, the plaintiff must be careful. Tort law is not designed to provide a profit to the plaintiff, so a plaintiff may only seek redress for one loss only, thus a plaintiff may not seek both diminution of value in the crop and removal of the contamination. Either the contamination is not removed and the loss is in the value of the crop in the marketplace or the contamination can be removed and the cost of removal is allowable, but there can be no claim for loss of value in the crop. Similarly as outlined below, a plaintiff must take steps to mitigate his loss and so the defendant will not be liable for the more expensive loss. For example if removal of the contamination were to cost €20,000 and the loss of value in the crop is €15,000, the defendant will only be liable for €15,000, even if the plaintiff chose to remove the contamination and incur the €20,000 expense.
- 52 In nuisance, the plaintiff must establish physical damage to the land that reduces the value of the land. In *Halpin v Tara Mines*⁶² Ltd the court held that cracks in a building would suffice although on the facts of the case, the plaintiff could not establish that these cracks had been caused by the defendant's activities. Further, in *Hanrahan v Merck Sharp & Dohme*⁶³ the courts have held that a plaintiff may recover for risks to the plaintiff's health. Damages

61 *Nicholls v Ely Beet Sugar Factory Ltd* [1936] Ch 343.

62 [1976-7] ILRM 28.

63 [1988] ILRM 629.

are also clearly awarded for the loss of enjoyment and use of the land, such that as was stated in *Halpin* the plaintiff can establish „sensible personal discomfort, including injurious affection of the nerves or senses of such a nature as would materially diminish the comfort and enjoyment of or cause annoyance to, a reasonable man accustomed to living in the same locality.”⁶⁴

- 53 In negligence actions, the plaintiff must prove harm or damage. However, such damages in negligence are confined to physical harms and any consequential damages arising. In general, no compensation is payable for purely economic loss. In most actions involving GMOs the primary harm will be economic, for example the impurity of organic produce contaminated with GMOs may not necessarily result in physical harm but rather in a diminution of the value of the crop. As pure economic loss, it is not necessarily recoverable under negligence. In *Murphy v Brentwood*,⁶⁵ a full House of Lords overturned earlier cases⁶⁶ which indicated that pure economic loss was recoverable under the standard negligence principle outlined in *Donoghue v Stevenson*,⁶⁷ and confined such actions to the exception created in *Hedley Byrne v Heller*⁶⁸ for negligent misrepresentation. The decision has been heavily criticized throughout the common law world. It is more likely however that Irish courts, with a more liberal approach than their English brethren, would not confine their judgments in a suitable GMO application to the narrow view of economic loss. Instead they are more likely to hold that the intermingling of traditional or organic produce with GMOs would constitute physical harm for which the consequential economic loss, such as diminution of crop value, would be eligible for an award of damages.
- 54 Damages under *Rylands v Fletcher* are treated similarly to that in negligence although by its very nature an escape under *Rylands* will normally present no difficulty for the plaintiff to establish actual harm,⁶⁹ although it will be still subject to the rules on pure economic loss and the limits of remoteness, for a defendant cannot be liable *ad infinitum* even if he is strictly liable for the escape.
- 55 There is no cap on the quantum of damages payable by the defendant and the plaintiff is entitled to all damages lawfully assessed. On the other hand, compulsory insurance arises only in limited circumstances such as operation of a motor vehicle. Most activities undertaken by a defendant will not oblige the holding of a public liability policy of insurance thus meaning that many defendants are not well placed to satisfy any judgment against them.

64 [1976-7] ILRM 28, 30.

65 [1990] 2 All ER 908.

66 *Anns v Merton* [1978] AC 728.

67 [1932] AC 562.

68 [1964] AC 465.

69 After all liability in *Rylands* arises for the escape of an inherently *dangerous* thing.

- 56 Further there is a duty on the plaintiff to mitigate losses arising from the action of the defendant. This would probably require the plaintiff to show that he took steps to say for example, remove the presence of GMOs from his produce before sale. It would certainly not justify the plaintiff from treating the entire crop as being tainted and useless and of no value. The plaintiff would still be obliged to yield as much as possible from his production, the defendant only being liable for the difference between that which could have been yielded in the absence of GMO contamination and the value of that which was in fact yielded in the presence of GMO contamination.

(c) The Injunction

- 57 An injunction is the primary form of remedy for nuisance actions, although it is rare in negligence actions and inappropriate for a *Rylands* action given that injunctions relate to continuing events rather than isolated incidents that are the primary remit of the *Rylands* action.
- 58 Injunctions can either be pre-emptive or reactive. Pre-emptive injunctions seek to restrain the defendant from acts for which a high likelihood of harm is threatened, although no such harm has as yet occurred. They are known as *Quia timet* injunctions: quite literally, ‘in fear of’ harm applications. Given that the plaintiff seeks a remedy for a threatened or potential harm as distinct from an actual harm, traditionally courts have been reluctant to award such injunctions but in the case of commencement of GMO production, such injunctions could provide a highly useful remedy. However, given that GMO production will presumably be licensed under statutory regulation, it follows most courts would deny such an injunction, unless the very specific location of the GMO production outweighs the general regulatory framework, for example, where the regulatory framework permits the licensing of GMO production but the defendant is located in an area exclusively operating organic farming.
- 59 Reactive injunctions, known as perpetual, interlocutory or interim injunctions, relate to events which have already occurred and will continue to occur unless steps are taken to prevent this from happening. In order to secure an injunction, the plaintiff must establish that damages are an inappropriate remedy. In this regard, the plaintiff has a high burden, since almost any loss or harm can be compensated by a monetary payment. However, the court will award an injunction where such payment would involve a continued recourse to the courts. An injunction would probably be the most suitable remedy where the harm is an escape of a GMO since, although the losses could be compensated each time, such escape is probably more of a recurrent nature than an isolated event for which damages would suffice.

III. Sampling and Testing Costs

- 60 A plaintiff would only be able to recover sampling costs in the event of a successful tort action against the defendant, where such costs would be a direct consequence of the harm. However, an individual cannot claim compensation for sampling where there is no contamination nor where the plaintiff fails to win his case against a specific defendant or defendants, even where contamination is found.

IV. Cross Border Issues

- 61 The general rule is that Irish courts will take jurisdiction of any tort action that is committed within the state. Thus, if the plaintiff can establish that the affected land or crop is located within the state, then Irish courts have jurisdiction. Where the defendant resides elsewhere, summons may be served outside of the jurisdiction on the defendant, based on the Rules of the Superior Courts.⁷⁰ Moreover, jurisdiction may be founded by the defendant's temporary residence within the jurisdiction, although this does not apply if the defendant is domiciled within one of the contracting states covered by the Jurisdiction of Courts and Enforcement of Judgments (EC) Act 1988⁷¹ discussed below.
- 62 The applicable law for the case is Irish law since the tort will have occurred within the jurisdiction. However, difficulties arise with respect to the remedies available where a defendant resides outside the jurisdiction. Damages can only be effectively enforced if the defendant has assets within the Irish jurisdiction against which a judgment can be levied. Moreover, enforcement of an injunction outside the jurisdiction is usually futile, since an injunction being a personal remedy requires personal enforcement. In the absence of any bilateral agreement between Ireland and the defendant's jurisdiction, such injunctions are meaningless.
- 63 In the case of judgments within the EU, then the Jurisdiction of Courts and Enforcement of Judgments (European Communities) Act 1988 as amended governs. This Act, based on the Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters, re-iterates the jurisdiction of Irish courts in cases where the tort has occurred within the jurisdiction. Moreover, it also provides for enforcement of any judgment arising from such jurisdiction. The net effect therefore is that, where judgment is made by an Irish court in a tort action, then the plaintiff may pursue the enforcement of that Irish judgment in any signatory state of the Convention. This will include the enforcement of all remedies, including both damages and injunctions. The Convention and legislation however provides for limited reasons to refuse to

⁷⁰ Order 11, Rule 1(f) SI No 15.1986.

⁷¹ First Schedule: Title II, Article 3

enforce such judgments, usually based on public policy grounds or that it does not fall within the scope of the convention, for example it covers administrative or fiscal matters.

13. ITALY

Alberto Monti/Federico Fusco

I. Special Liability or Compensation Regimes

1. Introduction

- 1 A special liability and compensation regime addressing liability for GMOs and covering the economic damage resulting from GMO admixture in non-GM products has been recently enacted in Italy, but only in the form of general principles that still require detailed implementation and specification at regional and local level. Pending implementation, the cultivation of GM crops is prohibited in Italy, subject to criminal sanctions.
- 2 In November 2004 the Italian Government adopted urgent measures for the coexistence of genetically modified crops with conventional and organic farming, in compliance with Commission Recommendation 2003/556/EC. Some of those measures, which are contained in Decree-law 22 November 2004 no. 279 (hereafter: DI 279/04), deal specifically with the liability for GMO presence in traditional agricultural products.¹
- 3 DI 279/04, which was subsequently amended and converted by the Parliament into Law 28 January 2005 no. 5, defines the minimal normative frame of reference for coexistence, aimed at protecting the biodiversity of natural environments and ensuring both producers' and consumers' choice for the different agricultural production types.² The very general principles contained in DI 279/04 should then have been implemented, at a national level, by a decree of the Minister of Agriculture and Forestry³ and ultimately, at a local and technical level, by coexistence plans adopted in every single Region or autonomous Province (in accordance with the principles stated in the decree of the Minister of Agriculture and Forestry).⁴

1 See art. 5 of Decree-law 22 November 2004 no. 279, as amended by Law 28 January 2005 no. 5.

2 See art. 1 of Decree-law 22 November 2004 no. 279, as amended by Law 28 January 2005 no. 5.

3 See art. 3 of Decree-law 22 November 2004 no. 279, as amended by Law 28 January 2005 no. 5.

4 See art. 4 of Decree-law 22 November 2004 no. 279, as amended by Law 28 January 2005 no. 5.

- 4 In particular, art. 5 of DI 279/04, as amended by Law 28 January 2005 no. 5, established a special fault-based liability regime for damages resulting from GMO admixture in non-GM products as a consequence of the violation of coexistence measures, with a reversal of the burden of proof. Pursuant to art.5, par. 1-*bis*, of DI 279/04, a farmer who suffers damage resulting from other farmers' inobservance of the measures contained in the local coexistence plan⁵ or in the mandatory business management plan⁶ is entitled to compensation. The burden of proving full compliance with all the applicable coexistence measures lies on the defendant. The same liability regime applies to the suppliers of technical means of production and to the other operators of the primary production chain.
- 5 As a matter of fact, the Minister of Agriculture and Forestry has never enacted any implementing decree; consequently, neither the Regions nor the autonomous Provinces have ever adopted any specific coexistence plan. In addition, in March 2006 the Italian Constitutional Court declared unconstitutional several provisions of DI 279/04, for they have been considered in conflict with the Regions' legislative competence.⁷ As a consequence of this judicial decision, the actual implementation of the urgent measures on coexistence contained in DI 279/04 seems now to be unlikely, or at least very uncertain.
- 6 With specific reference to the liability regime, it must be noted that only the last two paragraphs of art. 5 of DI 279/04⁸ have been declared illegitimate by the Constitutional Court. However, the circumstance that almost any other provision of DI 279/04 has been deemed unconstitutional,⁹ coupled with the high degree of abstraction of the Decree-law in its whole, considerably diminishes the significance of those rules on liability for GMOs. As mentioned, in any case, the cultivation of GM crops is currently banned on the territory of Italy until coexistence measures are adopted by the Italian Regions,¹⁰ and the authors are not aware of any case of GM-admixture brought to the attention of civil courts in Italy at the time of this writing.

5 See *supra* footnote 4 and accompanying text.

6 See art. 5, par. 3, of Decree-law 22 November 2004 no. 279.

7 Constitutional Court, judgment no. 116 of 17 March 2006.

8 Art. 5, par. 3, of DI 279/04 stated that anyone who wishes to grow GMOs must give notice to the competent authority and must also devise a mandatory business management plan, in accordance with the Regional coexistence plan; art. 5, par. 4, of DI 279/04 in turn stated that Regions and Autonomous Provinces must keep track of all relevant information concerning GM crop cultivation.

9 In particular, art. 3 on implementation of the measures for coexistence, and art. 4 on adoption of the Regional coexistence plans.

10 See art. 8 of Decree-law 22 November 2004 no. 279, as amended by Law 28 January 2005 no. 5. See also Circolare ministeriale of the Minister of Agriculture and Forestry of 31 March 2006.

- 7 However general and unimplemented, the urgent measures on coexistence adopted in November 2004 by the Italian Government do lay out a special liability regime, applicable in the case of economic damage resulting from GMO presence in non-GM crops.
- 8 At present, it is not clear whether this liability regime should be deemed as an exclusive one or whether it could overlap with the general tortious liability regime laid down in art. 2043 ff. of the Italian Civil Code (hereafter: CC).¹¹

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 9 No special rules are laid down in DI 279/04 with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned. As a consequence, the general rules on causation set forth in art. 40 and 41 of the Italian Penal Code (hereafter PC) and deemed applicable to civil torts should apply to liability for GMOs as well.

(b) How is the burden of proof distributed?

- 10 DI 279/04 is very unclear on this point. On the one hand, it could be argued that the general rules on allocation of the burden of proving causation are applicable to liability for GMOs too; if this is the case, the damage is not presumed to be the consequence of the breach of coexistence measures, but the injured farmer has to prove the causal link between the alleged damage and the conduct of the defendant. On the other hand, it could be inferred from the wording of art. 5, par. 1-*bis* that the law presumes the damage to be caused by the defendant whenever such a defendant fails to observe the coexistence measures. According to this interpretation the defendant could rebut the presumption by proving that there was no causation in fact, because, for instance, the damage was the result of other causal elements outside his scope of action.
- 11 Different sources of adventitious presence of GMOs are not taken into account by DI 279/04 but probably, pursuant to art. 5, par. 1-*ter*, they should have been contemplated in the implementing decree of the Minister of Agriculture and Forestry (which has not been enacted). As anticipated, DI 279/04 merely states that liability for GMOs applies to the suppliers of technical means of production and to the other operators of the primary production chain as well.

¹¹ See *M. Bussani/B. Pozzo/A. Venchiarutti*, Tort Law, in: J. Lena/U. Mattei (eds.), Introduction to Italian Law (2002) 217 ff.

(c) How are problems of multiple causes handled by the regime?

- 12 DI 279/04 does not deal specifically with problems of multiple causes. The general rules on concurrent causes (art. 41 CP) and joint and several liability (art. 2055 CC) are therefore applicable.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 13 Art. 5 of DI 279/04 provides a fault-based liability regime with a reversal of the burden of proof on the defendant.
- 14 As described in answer to question 1, fault arises as a consequence of the mere breach of the provisions contained in the regional coexistence plans and in the business management plans, which means that liability for GMOs will occur upon breach of the measures on coexistence, provided that all the other requirements of tort liability are met (existence of a damage, causation between the conduct of the agent and the damage, and the capacity of the tort-feasor).
- 15 As the burden of proof is reversed by operation of law, the defendant must give evidence that he/she has acted in full compliance with all the applicable measures on coexistence, otherwise he/she will automatically be considered at fault.
- 16 Pursuant to art. 5, par. 2, of DI 279/04 a farmer who proves that he/she used only GMO-free seeds – certified by the public authority and by the producer – is always exempted from liability.

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 17 Not applicable.

(c) If it is no liability regime as such, but any other variety of compensation mechanism (including, but not limited to, administrative law measures, private and/or state funding), please describe its nature and functioning.

- 18 Besides the liability regime described above, DI 279/04 provides for other sources of compensation, namely the recourse to the existing National Solidarity Fund and the prospective establishment of regional *ad hoc* funds (see answer to question 5).

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 19 As far as the applicability of the liability regime for GMOs is concerned, the Italian measures on coexistence do not distinguish, at present, between crop production and seed production.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country? In particular, can claims based on general tort law still be brought either simultaneously or subsequently?

- 20 At present, the Italian legal system does not provide for coordination between the specific liability regime for GMOs and the general tortious liability regime. As a result, it is not clear whether the liability delineated by DI 279/04 should be deemed as an exclusive one for cases of admixture or it may overlap with the general liability regime. In particular, it is not clear if a tortfeasor causing admixture could be held liable in tort, according to the general liability regime, even if he/she acted in compliance with all the relevant coexistence measures. In other words, it still has to be determined whether art. 5 of DI 279/04 contemplates a „regulatory permit defence” or not. In our modest view, even if the provision is somewhat ambiguous, it seems that the injured party can still provide evidence that the defendant acted in breach of the general duty of care and, therefore, must be held liable in tort (notwithstanding compliance with coexistence measures). Under Italian general tort law, in fact, a tortfeasor can be held liable even if he/she acted in compliance with all applicable administrative law rules, if breach of the general standard of diligence can be demonstrated by the injured party. It should also be noted that Italian Courts may consider the cultivation of GM crops as a „dangerous activity” pursuant to article 2050 CC, which would entail the application of a quasi-strict liability regime.¹²

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described (thereby focusing specifically on the kind of losses covered by this study)? In what way is pure economic loss handled differently to other types of losses, if at all?

- 21 According to art. 5, par. 1-ter of DI 279/04 the different types of damages that can be awarded to compensate the consequences of admixture should have been defined by the implementing decree of the Minister of Agriculture and

¹² Pursuant to Article 2050 CC, whoever causes damage in the performance of a dangerous activity is liable to pay compensation if he or she does not prove that all adequate measures aimed at preventing the damage have been duly taken.

Forestry (which has not been enacted). Failing a specific definition, general rules of tort law should be applicable.

- 22 The Italian Civil Code does not provide for a general definition of „damage”, however the term is generally understood as designating something injurious to an interest or, more narrowly, something detrimental (to property or person) as resulting from „injury to an interest”. Art. 2056 CC, which lays down the tests to assess the magnitude of the damage inflicted, refers to art. 1223 ff. CC, pursuant to which the measure of recoverable damages shall include both the loss sustained and the lost profits (economic detriment).

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?

- 23 DI 279/04 does not provide specifically for feared admixture; however it seems reasonable to conclude that only losses deriving from actual admixture would be recognized as compensable, according to the general rules of tort law.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 24 Once again, there are no specific provisions in this regard.

(d) Which are the criteria for determining the amount of compensation?

- 25 Please refer to the answer to question 4 (a) above. Types of damages and criteria for determining the amount of compensation should have been defined by the implementing decree of the Minister of Agriculture and Forestry, which has not been enacted.

(e) Is there a financial limit to liability?

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 26 No, there is not financial limit to liability. However, pursuant to art. 5, par. 1-ter of DI 279/04, the implementing decree of the Minister of Agriculture and Forestry should have provided for the recourse to specific insurance policies and procedures, aimed at covering the losses suffered by both the farmer whose crops have been contaminated and the injurer who has been held liable for admixture.

(g) Which procedures apply to obtain redress?

- 27 The injured farmer may take ordinary proceedings for civil liability against the wrongdoer alleging that he has suffered a damage resulting from the defendant's breach of the coexistence measures, which *per se* implies fault on the part of the wrongdoer according to art. 5 of DI 279/04. Please refer to the answers to questions 2 (b) and 3 (a) for what concerns the burden of proof.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 28 The liability regime laid down in DI 279/04 does not provide specifically for injunctive relief. Nonetheless, it can be argued that rules on emissions are applicable to GMO admixture as well.
- 29 Pursuant to art. 844 CC landowners may prevent neighbours from discharging smoke, heat, exhalations, noise and other escape of substances as long as they go beyond ordinary tolerability, considering site conditions. The remedy is an injunction prohibiting emissions from a property located in a neighbourhood area. According to this rule, the infiltration of GMOs in traditional crops from neighbouring fields may be considered an „escape of substances beyond ordinary tolerability” and thus lead to the grant of an injunction.

5. Compensation funds

(a) Are there any compensation funds?

- 30 Pursuant to art. 4 of DI 279/04 the Regions and the autonomous Provinces could have set up compensation funds specifically aimed at restoring the original conditions of the fields contaminated with GMOs. The functioning of those funds should have been regulated by the implementing decree of the Minister of Agriculture and Forestry, which has not been enacted. Anyway, art. 4 of DI 279/04 has been declared unconstitutional and the regional funds have not been set up.
- 31 Moreover, pursuant to art. 5, par. 1-ter of DI 279/04, the implementing decree of the Minister of Agriculture and Forestry should also have regulated the access of injured farmers to the existing National Solidarity Fund, set up by Legislative Decree 29 March 2004 no. 102 and aimed at preventing and restoring the losses suffered by agriculture as a result of natural catastrophes and calamities.

(b) How are these funds financed (e.g. in the form of a levy on sown or harvested GM crops, or a levy on the sale of GM seeds, or a levy on fees to organic certification bodies)? Which operator groups are the main contributors to the fund (e.g. GM crop growers, traditional farmers, seed importers or developers, biotech industry)?

32 The National Solidarity Fund is exclusively financed by the State budget.

(c) Is there any contribution granted by the national or regional authorities?

33 Please refer to the answer to question 5 above.

(d) Is the contribution to the fund mandatory or voluntary?

34 Not applicable.

(e) Is a balance established between the money paid into the fund and expenses of the fund? If so, at which time intervals are levies adapted to the actual expenses?

35 Not applicable.

(f) How are the funds operated? Which body is in charge of managing the fund and of deciding about justified claims? Which procedures apply to obtain compensation of loss?

36 The operation of the National Solidarity Fund and the procedures to obtain compensation of loss with regard to GMOs admixture should have been regulated by the implementing decree of the Minister of Agriculture and Forestry, which has not been enacted. As far as losses deriving from natural calamities are concerned, funds are allocated by the Minister of Agriculture and Forestry upon request of the Regions and autonomous Provinces.

(g) Are there any provisions for recourse against those responsible for the actual cause of the loss?

37 Not applicable.

6. Comparison to other specific liability or compensation regimes

38 The special liability regime introduced by art. 5 of D1 279/04, as amended by Law 28 January 2005 no. 5, does not seem to fit into a broader system and it is not directly comparable to the product liability regime nor the environmental liability regime currently in force in Italy. The most similar regime is that of article 2050 CC, pursuant to which whoever causes damage in the per-

formance of a dangerous activity is liable to pay compensation if he/she does not prove that all adequate measures aimed at preventing the damage have been duly taken. Compared to article 2050 CC, the special liability regime for damages resulting from GMO admixture in non-GM products seems to be more favorable to the defendant, since proof of compliance with coexistence measures should be easier to give than proof of having taken all adequate measures aimed at preventing the occurrence of the loss, since coexistence measures are specifically listed in the coexistence plan and in the business management plan. It will all depend, of course, on how specific and detailed such coexistence measures will be in practice.

II. General Liability or other Compensation Schemes

1. Introduction

39 Please refer to answers of section I.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

40 Not applicable.

(b) How is the burden of proof distributed?

41 Not applicable.

(c) How are problems of multiple causes handled by the general regime?

42 Not applicable.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

43 Not applicable.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

44 Not applicable.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

45 Not applicable.

4. Damage and remedies

46 Not applicable.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

47 No, there are no such rules in the Italian jurisdiction.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

48 No, since at present, as mentioned, the cultivation of GM crops is prohibited in Italy, subject to criminal sanctions.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

49 Not applicable.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 50 No, there are no special jurisdictional or conflict rules, nor other specific provisions aimed at resolving cross-border cases of admixture.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 51 Pursuant to art. 62 of Law 31 May 1995 no. 218 on the reform of Italian system of conflict of laws, liability for unlawful acts (art. 2043 ff. CC) is governed by the law of the State where the event occurred. Nevertheless, the injured person may demand application of the law of the State where the fact which caused the damage occurred. According to this rule cases of Italian crops contaminated by foreign GMOs would be governed by Italian law unless the injured farmer demands application of the law of the State where admixture originated.
- 52 As far as jurisdiction is concerned, reference should be made to art. 2 and to art. 5, par. 3 of the Brussels Convention of 27 September 1968 on jurisdiction and the enforcement of judgments in civil and commercial matters, ratified in Italy by Law 21 June 1971 no. 804. According to the Brussels Convention persons domiciled in a Contracting State shall, whatever their nationality, be sued in the courts of that State. Nonetheless, in matters relating to tort, delict or quasi-delict a person domiciled in a Contracting State may be sued in the courts of the State where the harmful event occurred.

14. LATVIA

Agris Bitāns

I. Special Liability or Compensation Regimes

- 1 There are special regulations regarding GMOs in different legislative acts of the Republic of Latvia, for instance, the Law on Circulation of Seed (*Sēklu aprites likums*) adopted by Parliament on 07.10.1999, the Regulation of Genetically Modified Organisms and Novel Foods Monitoring Council No. 322 (*Ģenētiski modificēto organismu un jaunās pārtikas uzraudzības padomes nolikums*) adopted by the Cabinet Ministry on 19.09.2000, Regulations on the Crop Seeds Cultivation and Seeds Merchandising No.253 (*Labības sēklauzdevšanas un sēklu tirdzniecības noteikumi*) adopted by the Cabinet Ministry on 13.05.2003, Regulations on the Limited Usage of Genetically Modified Organisms and Intentional Distribution on Environment and Market, as well as Monitoring Order No. 333 (*Noteikumi par ģenētiski modificēto organismu ierobežotu izmantošanu un apzinātu izplatīšanu vidē un tirgū, ka arī par monitoringa kārtīgu*) adopted by the Cabinet Ministry on 20.04.2004, Regulations on Order, how to Organise or Carry out Verification of Sort and Pass a Decision about Declaring Results of Sort's Verification No. 243 (*Kārtība, kādā organizē vai veic šķirnes pārbaudi un pieņem lēmumu par šķirnes pārbaudes rezultāta atzīšanu*) adopted by the Cabinet Ministry on 28.03.2006.
- 2 Despite these there is no specific special liability or other compensation regime provided by legislation. Besides, there is no discussion in Latvia regarding a special regime of liability for economic damage resulting from actual or feared GMO presence in non-GM crops.

II. General Liability or other Compensation Schemes

1. Introduction

- 3 As indicated above, there is no specific liability or other compensation regime in Latvia. This means that in cases when a person suffers economic damage resulting from actual or feared GMO presence in non-GM crops, compensation of the damage is the subject of general regulation of the Civil Law.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 4 According to Art. 1775 of the Civil Law, compensation shall be payable for damage which is not accidental. Art. 1773 defines three types of damage depending on the causal link between action and result. A loss shall be considered: direct where it is the natural and inevitable result of an illegal act or failure to act; indirect where it is caused by an occurrence of particular circumstances or relationships; and accidental where caused by a chance event or *force majeure*. Based on that, the court must establish whether the alleged damage is a direct or indirect result of the presence of the GM crop.

(b) How is the burden of proof distributed?

- 5 Generally it is the obligation of the plaintiff to prove that the damage was caused by an illegal conduct of the defendant. There is a possibility for a reversal of the burden of proof, in the sense that the damage under certain conditions may be presumed to be the consequence of the presence of a certain GM crop, e.g. if it is established that the GMO farmer failed to apply proper segregation measures or other requirements defined by law.

(c) How are problems of multiple causes handled by the general regime?

- 6 Generally in cases where there are problems of multiple causes the court must try to clarify whether or not the resulting damage was accidental, i.e., was the damage too remote from the illegal conduct of a particular person?
- 7 Generally the law recognises joint and several liability as a solidary obligation. Such kind of obligation is established when the subject-matter of a certain action is indivisible (Art. 1764) – for instance, if the illegal conduct was carried out by more than one person and it is impossible to define the influence and result of the actions of each separate person or the harmful result arising as a result of their mutual actions (Art. 1675¹).

¹ Art. 1675. If a criminal offence has been committed jointly by more than one person, they shall be solidarity liable for the losses caused thereby.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed? Does it make any difference if there are clearly established statutory rules defining the required conduct for GMO agriculture?

- 8 According to new doctrinal developments, the existence of fault and its degrees are based on an evaluation of the defendant's conduct. Therefore, culpability seems to be a better term than fault to use in civil liability². Moreover, courts seek justification under law if somebody's rights or legal interests are breached. Legal theory also points out the existence of a presumption of fault in civil law, which means that the tortfeasor has an obligation to show justifications of fault absence. Clearly established statutory rules defining the required conduct for GMO agriculture facilitate to prove breach (unlawful conduct) which is a necessary precondition for civil liability.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

- 9 If a strict liability regime is applicable (for instance as with food products), there are still a set of defences which will be available to the actor, for instance 'acts of God' or *force majeure*, wrongful acts or omissions of third parties or the plaintiff. The defendant will have the burden of proofing the existence of the mentioned circumstances.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 10 Our jurisdiction does not provide for special rules applicable to cases of nuisance or similar neighbourhood problems.

2 *K. Torgāns*, Vainas vai attaisnojumu meklējumi civiltiesībās (Seeking of fault or justification in civil law), Latvijas Vēstnesis, vol. 20 (375) 2005; *K. Kārklīņš*, Vainas nozīme, nosakot civiltiesisko atbildību (Importance of fault, for establishing civil liability), Latvijas Vēstnesis, vol. 15 (370) 2005.

4. Damage and remedies

(a) How is damage defined and measured (thereby focusing specifically on the kind of losses covered by this study)? In what way is pure economic loss handled differently to other types of losses, if at all?

- 11 Art. 1770 of the Civil Law defines damage (a loss) as any deprivation which can be assessed financially. Only damage already suffered gives a right to compensation (Art. 1771). The Law grants compensation for any actual damage including lost profit (Art. 1772).

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 12 Damage from only the fear that products of a farmer are no longer GMO free (e.g. because of GMO cultivation in his vicinity) could not be recognised as compensable by the courts. Mostly, actual admixture as illegal conduct will be required.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 13 Our legal system divides damage (a loss) as compensable and non-compensable. Any accidental damage caused by a chance event or *force majeure* ('acts of God') according to Art. 1774 of the Civil law is not required to be compensated by anyone. Also a victim may not claim compensation if he or she could have, through the exercise of due care, prevented the loss. An exception to this provision shall be allowed only in a case of malicious infringement of rights (Art. 1776). The second question has no clear answer, because issues of causal link will be evaluated by the court. Only, if the court recognises that there is a direct or indispensable causal link between actual contamination of the crops of only one of the farmers in the region and the losses of other farmers in the same region, will these farmers have a right to compensation for the damage suffered.

(d) Which are the criteria for determining the amount of compensation in general?

- 14 In general the amount of compensation is prescribed as the recovery of actual damage. The main aim of compensation is restitution of the previous situation or to compensate all loss suffered, including lost profit. If a crop with GMO presence still has any value, the amount of damage will be calculated as the difference between the contractual amount and the residual value. If not, the entire contractual value will be determined as being compensable damage.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 15 There is no financial limit to liability. But the Civil Law does not provide compensation for loss which the plaintiff could have avoided through the exercise of due care (Art. 1176.). An exception to this provision shall be allowed only in a case of malicious infringement of rights.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 16 There is no mandatory obligation for operators to obtain liability insurance or to provide for other advance cover for potential liability.

(g) Which procedures apply to obtain redress in such cases?

- 17 No.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

- 18 No.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 19 The Cabinet Ministry adopted on 20.04.2004 Regulations on the Limited Usage of Genetically Modified Organisms and Intentional Distribution on Environment and Market, as well as Monitoring Order No. 333 (*Noteikumi par ģenētiski modificēto organismu ierobežotu izmantošanu un apzinātu izplatīšanu vidē un tirgū, ka arī par monitoringa kārtīgu*), which regulates the procedure of monitoring GMOs, but there are no specific regulations regarding the testing for GMO presence in other products. The Food and Veterinary Service organises the testing for GMO presence in food products.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 20 In any case if there is a court trial, Art. 121 of the Civil Procedural Law grants the possibility to appoint an expert to test for GMO presence in other products. General principles require that the person who requested an expert

should pay the necessary amount for the expert fees in the court's account. The party who loses the case should cover all the expenses, including expert's costs.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 21 If the court appoints an expert to conduct the testing, in accordance with Art. 44 of the Civil Procedure Law such costs are recoverable if the tests prove actual GMO presence.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 22 There are no special jurisdictional or conflict of laws rules in force or planned in our jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, nor are there any other specific provisions aimed at resolving cross-border cases.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 23 Art. 20 of the Civil Law determines that obligations arising from wrongful acts (tort) shall be adjudged in accordance with the law of the place where the wrongful acts took place.
- 24 Civil Procedure Law determines that actions (claims) against a defendant shall be brought in a court in accordance with the place of residence or location of the defendant (Art. 26). If the defendant's place of residence is unknown, or they have no permanent place of residence in Latvia, the action shall be brought in a court in accordance with the location of the defendant's immovable property or their last known place of residence (Art. 27). An action arising in relation to the action of a subsidiary or representative office of a legal person may also be brought in a court in accordance with the location of the subsidiary or representative office (Art. 28).

15. LITHUANIA

Gediminas Pranevicius

I. Special Liability or Compensation Regimes

- 1 At the moment in the Republic of Lithuania there does not exist any special liability or other compensation regime which specifically addresses liability for genetically modified organisms (GMOs). The Law on Genetically Modified Organisms (2001-06-12 No.IX-375 with latest changes, articles 13, 14) states that in case of economic damage, resulting from GMO usage/activity, liability occurs in accordance with existing laws of the Republic of Lithuania. General liability rules are presented in the Civil Code (articles 6.245 – 6.304).
- 2 The project on the Rules of Coexistence of Genetically Modified, Conventional and Organic Crops has been prepared but is not publicly available yet.
- 3 Administrative responsibility for the breach of GMO usage rules is foreseen by Administrative Code, article 89¹.

II. General Liability or other Compensation Schemes

1. Introduction

- 4 As mentioned above, at the moment in Lithuania there does not exist any special liability or other compensation regime which specifically addresses liability for genetically modified organisms. General liability rules (reviewed below) would apply to cases of economic damage resulting from GMO presence in traditional crops.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 5 The rule of causation is stated in Civil Code article 6.247. According to this rule the causal link between the debtors' actions (active actions or passive attitude) and the damage inflicted means that the actions have taken place earlier than the damage, and the damage is the result of the debtors' actions. Debtors' actions are one of the reasons (but not necessarily the only reason) of the damage inflicted.

- 6 To establish the causal link between the alleged damage and the presence of the GM crop it has to be proven that the presence of the GM crop is the reason (sufficient but not necessarily the only reason) for the alleged damage.

(b) How is the burden of proof distributed?

- 7 The burden of proving the causal link is left to the claimant, who has to prove that the debtors' actions are sufficient (but not necessarily the only) reason for the damage inflicted. The court makes the final decision taking into account all significant circumstances, e.g. the conduct of the aggrieved party, degree of fault of the debtor, etc.
- 8 The Lithuanian Civil Code does not foresee the possibility of a reversal of the burden of proof of causal link.

(c) How are problems of multiple causes handled by the general regime?

- 9 Civil Code (article 6.279) establishes the general rule of joint liability when damage is jointly inflicted by several persons (damage is the result of actions of several persons). In cases of joint collective liability, reciprocal claims of debtors are determined by considering the fault of each of the debtors.
- 10 Where damage may have resulted from different actions performed by several persons (the actions of each person separately could cause damage) joint collective liability will be applied. Each of the persons may escape liability if they prove that the damage inflicted could not be the result of their action (there is no causal link between the damage and their actions, but there is causal link between the damage and another persons action).

3. Standard of liability

(a) In the case of fault-based liability, what are the parameters for determining fault and how is the burden of proof being distributed?

- 11 In accordance with general liability provisions, the unlawfulness of act is not presumed and has to be proven by the claimant (Commentary of Civil Code of the Republic of Lithuania, Book 6, Article 6.246). Speaking about non-contractual (delictual) liability, Civil Code article 6.263 states that every person has a duty to behave in such a way that his actions (active actions or passive attitude) do not cause damage to another person. In this case the principal of general tort in Lithuanian tort system establishes the presumption of unlawful act and fault every time damages occur. (Commentary of Civil Code of the Republic of Lithuania, Book 6, Article 6.263) The claimant does not have to prove fault and the unlawfulness of the act – it is the privilege of the defendant to show that he acted according to the law and that he is not at fault. The Civil Code establishes the general duty of care. If statutory rules defining the

nature and degree of any special duty of care (e.g. the required conduct for GMO agriculture) exist, these rules would apply. It has no effect on the burden of proof.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

- 12 The Lithuanian Civil Code allows the application of a strict liability regime in cases established by law or contract (article 6.248 part 1). One of these cases – liability for damage caused by hazardous activity (article 6.270), which is defined as activity raising major danger to the environment and people round about. The Civil Code does not give a definite list of types of hazardous activities. Every time the question arises, it has to be answered by evaluating two major criterion: hazardous features of the activity itself and the possibility (or impossibility) of a human being to control the process entirely. It is obvious that GMO agriculture could match the criterion of the strict liability regime.
- 13 A person engaged in hazardous activity has the duty to compensate for the damage his activity causes. Three defences available to the actor are foreseen: „acts of God” (force majeure), wrongful acts of the claimant or gross negligence of the claimant.
- 14 In cases of strict liability due to hazardous activity the defendant is the possessor (not necessarily the owner) of the potentially hazardous object. If the third party suffers losses because of the interaction of several sources of hazard, the liability of the possessors of sources of hazard is solitary. In cases where the possessor of hazardous objects suffers losses, they are compensated according to general liability rules.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 15 Lithuanian jurisdiction does not provide for special rules applicable to cases of nuisance or similar neighbourhood problems. General rules apply to cases of that kind.

4. Damage and remedies

(a) How is damage defined and measured?

- 16 In Lithuanian law damage is generally defined (Civil Code article 6.249) as direct losses (meaning loss or harm of property, and/or expenses suffered),

also deprived profit which a person would have received if wrongful acts had not been committed. Damage expressed in terms of money is called losses.

- 17 The total amount of losses could also include: reasonable expenses to prevent or mitigate damage, reasonable costs incurred in assessing civil liability and damage, reasonable costs incurred in the process of recovering losses within an extrajudicial procedure.
- 18 There is no presumption of damage, so it is the claimant's business to prove damage and the amount of damage. If the claimant can not prove the exact amount of damage and/or the claimant's evidence is contradictory and the other party does not agree with the amount of damage, it is the court that makes the final decision.
- 19 Damage is measured in prices valid on the day when the court judgement is passed. If it is required by the nature of the obligation or by special law, prices valid on the day the damage occurred or on the day when the claim was brought might be applicable.
- 20 Pure economic loss is handled on a general basis.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 21 The loss of a farmer whose customers only fear that his products are no longer GMO free (but there is no actual admixture) might be recognized as damage – deprived profit, which a person would have received if wrongful acts had not been committed. The loss is compensable when other essential elements of civil liability are present, i.e. wrongful acts, causal link between wrongful acts and damage, fault (if it is not the case of strict liability).

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 22 According to Lithuanian tort law losses are compensable every time when the presence of all the elements of civil liability are proven. As it was mentioned above, losses like deprived profits may be compensable for all the farmers if:
 - (1) wrongful acts are committed,
 - (2) a causal link is established – wrongful acts (or passive attitude) are sufficient (but not necessarily the only) reason of the damage inflicted,
 - (3) fault is proven (if it is not the case of strict liability).

(d) What are the criteria for determining the amount of compensation in general?

- 23 Civil Code article 6.251 states that damages must be compensated in full (exceptions are foreseen by the law). Full compensation means bringing the aggrieved party to the position it had been in before damage was inflicted. Enrichment of the aggrieved party or impoverishment of the debtor is not allowed. These principles should be equally applied to kind of cases covered by this study. If the property (e.g. crops) is totally lost, the value of the whole product should be covered; if the property is only harmed (e.g. crops are contaminated with GMO), depreciation should be covered; if additional expenses are suffered (e.g. due to GM crops in the vicinity), these expenses should be covered, etc.
- 24 Lithuanian legislation has no general rules on how depreciation has to be calculated. Having to prove the amount of damage, the aggrieved party may hire experts to evaluate property or the harm of property (to calculate depreciation). The Civil Code (article 6.249, part 4) foresees the possibility of including reasonable expenses of the experts into the amount of damages compensable.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 25 The Lithuanian Civil Code (article 6.251, part 1) establishes the principal of full compensation for the damage inflicted, which would also be applicable to the kind of cases covered by this study. Limited liability can only be established by special laws or contract.
- 26 The court is allowed to mitigate damages, but only on an exceptional basis – when the application of the full compensation principal would violate the principals of justice, bona fides and common sense. The mitigation of damages might be initiated by the court itself or by request of the defendant. The reasons for mitigation could be the nature of liability, financial status of the parties, the kind of relation between parties, etc.
- 27 However, the amount of mitigation may not exceed the amount for which the debtor has or ought to have covered his civil liability by compulsory insurance (Civil Code article 6.251, part 2).

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 28 General rules of liability insurance are established in Lithuanian Civil Code article 6.254. It is said that liability insurance can be obtained on a voluntary basis, liability insurance is compulsory when it is foreseen by specific law.

- 29 At the moment there are no rules establishing the duty of GM crop operators to obtain liability insurance or to provide for other advance cover for potential liability.

(g) Which procedures apply to obtain redress in such cases?

- 30 According to general liability insurance rules (Civil Code article 6.254 part 2) the insurance company has limited liability, i.e. the duty of redress does not exceed the insurance benefit. When insurance benefit is not sufficient for the compensation of damage, the difference between the insurance benefit and actual amount of damage shall be redressed by the insured person himself.

- 31 As mentioned above, at the moment GM crop operators do not have a duty to obtain liability insurance.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

- 32 There are no general compensation schemes applicable in such cases.

III. Sampling and testing costs

- 33 There are no specific rules which cover costs associated with sampling and testing of GMO presence in other products. Governmental institutions (e.g. State Seed and Grain Service, State Plant Protection Service, State Food and Veterinary Service) take samples and test products following state and institutional legal acts. Testing and sampling initiated by state services is financed by the state.

- 34 This year an amendment to the Law of Genetically Modified Organisms was prepared (2006-03-03 No.XP-1166 article 7(2)), which foresees that monitoring of deliberate release of GMO into the environment is financed by the state.

- 35 Speaking about Lithuanian tort law, it was already mentioned above (see: part 4 question (a)) that damage is understood as loss of or harm to property, expenses suffered (direct losses) and deprived profit. Besides that, damage could include reasonable costs incurred in assessing civil liability and damage (Civil Code article 6.249 part 4). In order to prove damage the claimant might need sampling and testing of GMO presence. In such a case reasonable costs of sampling and testing could be included in the overall amount of losses, which have to be compensated if the claim of the aggrieved party is satisfied.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 36 There are no special jurisdictional or conflict of laws rules or any other specific provisions aimed at resolving cross-border cases which would apply to GMO agriculture in Lithuania.

(b) If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 37 Speaking about tort, general rules of jurisdiction and choice of law are established in the Civil Code (article 1.43). By the choice of the aggrieved party, either the law of the state where the wrongful act took place or where the damage occurred is applicable. Where it is impossible to determine the place (state) of the wrongful act or damage, the law of the state most closely related with the case is applicable. After the damage is done the parties may agree that the law of the state where the case is being heard is applicable. If both parties are domiciled in the same state, the law of that state is applicable. Subject to the law applicable, terms and extent of liability, terms of excuse from liability are applied, the person liable is determined. If damage is caused by several persons, the applicable law shall be determined for each of them separately in accordance with the rules mentioned above.

16. LUXEMBOURG

Patrick Goergen

I. Special Liability or Compensation Regimes

1. Introduction

- 1 In the Grand-Duchy of Luxembourg, the legal framework for the use and marketing of GMOs is constituted by the law dated 13 January 1997¹ and modified by the law dated 13 January 2004². This law contains provisions of general importance (subject matter, definitions, technical means to genetic modifications, conditions of honour and professional qualification), provisions regarding the use of GMOs (exclusions, classification of GMOs and their use, principles, risk evaluation, authorization request, public consultation, authorization modalities, principles of good macro biological practice, registration), provisions regarding volunteer dissemination and marketing of GMOs (risk evaluation, principles, authorization request, public consultation, administrative decision, intra EU information exchange) as well as miscellaneous provisions (ministry committee, confidentiality, preventive measures, measures in case of accidents, cooperation with the EU Commission and other Member States, liability, inspection, withdrawal of authorizations, court actions, control powers, criminal sanctions). The law of 13 January 1997, as amended by the law of 13 January 2004, is hereafter referred to as „the Law”.
- 2 The legal framework is to be completed by a new law in discussion, a draft of which has been presented by the Luxembourg Government on 10 September 2004 (hereafter named „the Draft Coexistence Law”)³.
- 3 The Draft Coexistence Law is intended to replace the law of 9 November 1971 regulating the trade in seeds and plants and introduces, on the basis of

1 Loi du 13 janvier 1997 relative au contrôle de l'utilisation et de la dissémination des organismes génétiquement modifiés, Mémorial A 1997 of 24 January 1997, p. 10 and 13 February 1997 p. 584 (rectificatif).

2 Loi du 13 janvier 2004 modifiant la loi du 13 janvier 1997 relative au contrôle de l'utilisation et de la dissémination des organismes génétiquement modifiés, Mémorial A-5 of 23 January 2004, p. 22.

3 Projet de loi portant réglementation du commerce des semences et plants et concernant la mise en culture de semences et plants génétiquement modifiés, Parliament document n° 5380.

Article 26, paragraph 1, of EC Directive 2001/18⁴ and the EU Commission's Recommendation of 23 July 2003⁵, measures to manage the coexistence between genetically modified crops and conventional and organic crops. The Draft Coexistence Law proposes the general framework of measures which the Government considers adequate to ensure the coexistence between genetically modified crops and other farming methods. Articles 10 to 12 of this draft law list a number of conditions to be met by whosoever intends to import and cultivate genetically modified seeds and plants. The proposed conditions aim, by means of broad transparency, to ensure the responsible use of genetically modified seeds and plants with a view to better ensuring coexistence, preventing risks of accidental dissemination and avoiding irreparable disturbance of the ecological balance in certain particularly sensitive areas. The Draft Coexistence Law aims to lay down in detail the conditions for using and cultivating genetically modified seeds and plants. The Government adopted a restrictive approach based on the primacy of the precautionary principle. This approach guarantees free choice for producers with regard to the different production lines as well as free choice for consumers between GM and non GM products. It aims to preserve flora and fauna from damages caused by GMOs.

- 4 The provisions of the Draft Coexistence Law leave to grand-ducal regulations to define conditions for GM crops and the coexistence between GM and non GM crops, to prohibit for certain plants the use of GMOs and to prohibit the cultivation of certain types of GM crops in protected or ecologically sensitive regions for reasons of environmental protection. Pursuant to a draft grand-ducal regulation⁶, the Government intends to require that all imports into the Grand Duchy of Luxembourg of GM seeds and plants must be declared to the Agricultural Technical Services Administration (hereafter named „ASTA”) and that any plot of land intended to be cultivated with GM seeds or plants must be declared to ASTA at least two months before sowing (this declaration having to contain publicly accessible information on the designation and characteristics of the genetic medication). Cultivation of GM seeds and plants would be prohibited in the protected areas of Community and national interest and in natural parks. GM corn crops would have to respect a separation distance of 800 metres, GM beet and rapeseed crops a separation distance of 3 kilometres from conventional crops of the same species, organic crops and the protected areas and natural parks.
- 5 In the comments to the Draft Coexistence Law, the Government underlines that one of the big issues of coexistence is the compensation for economic losses which conventional or organic farmers could risk in the case of unin-

4 Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC, OJ L 106 of 17.04.2001.

5 http://archives.foodsafetynetwork.ca/agnet/2003/11-2003/agnet_nov_4-2.htm.

6 http://www.gmofree-europe.org/documents/Luxembourg_coexistence_law.doc.

tentional presence of GMOs in their harvest as the farmers would be obliged to sell their products at a very low price. In the Government's position, such a compensation would face, legally speaking, the problem of causality between the action and the damage as it would be difficult to prove this causality. Even if the solution to this problem could be facilitated by the introduction of a fault presumption at the charge of the GMO user or by the creation of a collective fund, the Government has decided not to follow such ways, but to stay at the general rules regarding civil liability. However, GMO farmers would be obliged to subscribe to a civil liability insurance contract.

- 6 The Draft Coexistence Law has been commented on, at the time being, by the Chamber of Commerce⁷, the Chamber of Agriculture⁸ and the Council of State⁹. The parliamentary committee of Agriculture has proposed certain amendments to the Draft Coexistence Law¹⁰. The parliamentary committee of Economic Affairs has already adopted a report¹¹, but the Government, considering critical remarks from the European Commission and the Council of State, still wants to suggest new amendments to the draft law. The Draft Coexistence Law shall therefore not be voted on by the Luxembourg parliament before October 2006.

2. Causation

- 7 For the time being there is no regulation concerning the applicable criteria with regard to the establishment of a causal link between the alleged damage and the presence of the GM crop within special liability. The Law as well as the Draft Coexistence Law do not foresee a special liability system for GMO matters. Therefore the general rules of liability (described hereafter) apply.

3. Damage and remedies

- 8 As there are no specific legal rules concerning GMO liability, these questions are irrelevant to the Luxembourg legal system.

4. Compensation funds

- 9 Luxembourg has no compensation funds already set up and there is no project planned to set up this kind of fund in the future. The Law as well as the Draft Coexistence Law do not foresee special compensation funds at all, neither

7 Opinion issued on 8 November 2004 (Parliament document 5380-1).

8 Opinion issued on 28 October 2004 (Parliament document 5380-2).

9 Opinions issued on 22 February 2005 (Parliament document 53803) and 4 July 2006 (Parliament document 5380-6).

10 Opinion issued on 20 March 2006 (Parliament document 5380-5).

11 During its meeting on 19 January 2006 (Parliament document 5380-4).

private nor public. Therefore the questions mentioned hereafter are irrelevant to the legal situation in Luxembourg.

II. General Liability or other Compensation Schemes

1. Introduction

- 10 As there is no specific liability or other compensation regime applicable in the Grand Duchy of Luxembourg at the time being, general liability rules, especially Articles 1382 to 1384 of Luxembourg Civil Code would apply to cases of economic damage resulting from GMO presence in traditional crops.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 11 Luxembourg law requires the fulfilment of three conditions to establish civil liability (fault, damage and causation), whether liability is contractual or fortuitous. Every plaintiff who can prove a fault / act¹² / negligence / imprudence¹³, damage and a direct link between this fault/act/negligence/imprudence and his damage, can claim compensation.
- 12 With regard to general rules of the Luxembourg Civil Code, the damage suffered by the plaintiff must be the direct and immediate consequence of an unlawful conduct, i.e. the violation of a contractual or legal provision or a tort (fault/act/negligence/imprudence) committed by the defendant.
- 13 By assessing the direct link between the damage and the unlawful conduct, Luxembourg courts apply the theory of the appropriate causality („*causalité adéquate*”). According to this theory, the court will assess whether the fault, act or imprudence could be considered as a cause which would normally have led to the alleged damage. Any potential causes which might have contributed to the damage being submitted by the plaintiff to the court are analysed by the court in accordance with this principle.
- 14 In GMO matters, a plaintiff would therefore have to prove the link between the damage and the presence of the GM crop concerned.

12 Article 1382 of Luxembourg Civil Code : « Tout fait quelconque de l'homme, qui cause à autrui un dommage, oblige celui par la faute duquel il est arrivé, à le réparer. »

13 Article 1383 of Luxembourg Civil Code : « Chacun est responsable du dommage qu'il a causé non seulement par son fait, mais encore par sa négligence ou par son imprudence. »

(b) How is the burden of proof distributed?

- 15 Traditionally, the burden of proof is laid upon the plaintiff.
- 16 Pursuant to Article 58 of the New Civil Code on Procedure¹⁴, the burden of proof rests upon the party who invokes a legal or factual point to validate his claim or defence. Evidence is produced to explain, support and confirm the party's claim or defence.
- 17 The evidence submitted to the court needs to win the entire conviction of the court. Evidence can take the form of written documents, whether official or private affidavits or testimonies. For „legitimate reasons” („*motifs légitimes*”), an individual can refuse to be heard as a witness (mainly people subject to rules on professional secrecy) as can the parents and any person related in direct lineage to a party or to his spouse/her husband¹⁵. Anyone other than the parties themselves can be heard as witnesses.
- 18 Verbal testimonies are secondary to written evidence. The judge has an important role in deciding whether or not a witness shall be heard, and subsequently in organising the hearings¹⁶. It is the judge alone who questions the witnesses, possibly at the request of the parties. The judge may decide on the relevance of the questions submitted by the parties.
- 19 It should be stated at this point that the Luxembourg legal system requires a compulsory oath by the witness before his testimony given except for persons unable to testify. To a certain extent, the judge has the power to decide whether oral testimonies were given thoroughly and sufficiently.
- 20 The genuineness and authenticity of written proof may only be challenged by the other party following a specific procedure called „*Du faux incident civil*” as laid down by Article 310 of the New Civil Code on Procedure¹⁷. Unless

14 « Il incombe à chaque partie de prouver conformément à la loi les faits nécessaires au succès de sa prétention. »

15 Article 406 of Luxembourg New Code on Civil Procedure : « Est tenu de déposer qui-conque en est légalement requis. Peuvent être dispensées de déposer les personnes qui justifient d'un motif légitime. Peuvent s'y refuser les parents ou alliés en ligne directe de l'une des parties ou son conjoint, même divorcé. »

16 Article 59 of Luxembourg New Code on Civil Procedure : « Le juge a le pouvoir d'ordonner d'office toutes les mesures d'instruction légalement admissibles. »

17 « Celui qui prétend qu'une pièce signifiée, communiquée ou produite dans le corps de la procédure, est fautive ou falsifiée, peut s'il y échet, être reçu à s'inscrire en faux, encore que ladite pièce ait été vérifiée, soit avec le demandeur, soit avec le défendeur en faux, à d'autres fins que celles d'une poursuite de faux principal ou incident, et qu'en conséquence il soit intervenu un jugement sur le fondement de ladite pièce comme véridique. »

such proceedings are initiated, written documents will be deemed to be genuine.

- 21 Evidence or witnesses from other jurisdictions can be admitted before Luxembourg courts if they meet the legal criteria as laid down in the Civil Code and/or New Civil Code on Procedure.
- 22 The burden of proof is not reversed in GMO matters. However, we refer to the possible set of defences an author may invoke, as explained hereafter.

(c) How are problems of multiple causes handled by the general regime?

- 23 Basically the theory of appropriate causality („*causalité adéquate*”) has an influence on Luxembourg case-law. This theory endeavours to link the damage to that of its antecedents which, normally was likely to produce it, as opposed to other antecedents which would be the cause of such damage only in exceptional circumstances.
- 24 In the framework of this theory, it is necessary to ask, with regard to each event whose causal intervention in the realization of the damage is called upon, if this event, in a usual course of the things and according to the experience of life, would normally cause such detrimental effect. It is therefore necessary to go back to the past and consider, through a „retrospective objective forecast”, if such an event was likely to cause the damage.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed? Does it make any difference if there are clearly established statutory rules defining the required conduct for GMO agriculture?

- 25 The general rule is that the plaintiff who has suffered loss needs to prove that the defendant was responsible for the damage caused. To succeed in a negligence claim, the plaintiff must prove that the defendant failed to exercise the care and skill expected of a reasonable practitioner in that field.
- 26 Articles 1382 and 1383 of the Luxembourg Civil Code provides that compensation is due for any fault, act, negligence or imprudence committed by the author. Bad faith is not required.
- 27 The assessment of any fault/act/negligence/imprudence will be analysed *in abstracto*, i.e. the judge will assess the fault by referring to the concept of a normally diligent, prudent and wise person („*homme normalement diligent, prudent et avisé, le bon père de famille*”). Notwithstanding the objective analysis, the judge has to take into consideration the external circumstances,

i.e. the judge compares the behaviour of the author of the act with any wise individual who would be confronted with a similar situation.

- 28 If legislation, possibly in GMO matters, has been infringed by a person, such infringement automatically implies fault.
- 29 As already mentioned above, the burden of proof lies on the plaintiff. Pursuant to Article 58 of the New Civil Code on Procedure, the burden of proof rests upon the party who invokes a legal or factual point to validate his claim or defence.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance „acts of God“, wrongful acts or omissions of third parties, etc.)?

- 30 Under tort liability rules established under Articles 1382 and 1383 of the Luxembourg Civil Code, the actor may try to escape condemnation by proving either:
- a commandment by virtue of the law or a legitimate authority, a necessity, a personal defence, a constraint or a private defence¹⁸;
 - the victim's wrongful act or omission, or the fact that the victim accepted the risk of damage¹⁹. It must be underlined that the wrongful act or omission of third parties can not be imposed on the victim.
- 31 Article 1384 (1) of the Luxembourg Civil Code²⁰ establishes a presumption of liability in respect of the person with custody of the property which occasioned the damage. A person with custody is a person who exercises the powers of use, supervision and control over the property in question. This means that a person can be liable not only for the damage he causes by his own actions, but also for damage caused by the actions of persons for whom he is responsible or property he has in his custody. The injured party must establish the active involvement of the property in effecting the damage; this is presumed if the property entered into contact with the damaged asset and if it was in motion during such contact („material intervention in the damage“). In such

18 Georges Ravarani, *La responsabilité civile des personnes privées et publiques*, Pasirisie luxembourgeoise, 2nd edition, 2006, n° 934-944, p. 727-731.

19 Georges Ravarani, *La responsabilité civile des personnes privées et publiques*, Pasirisie luxembourgeoise, 2nd edition, 2006, n° 945-965, p. 731-749.

20 « On est responsable non seulement du dommage que l'on cause par son propre fait, mais encore de celui qui est causé par le fait des personnes dont on doit répondre, ou des choses que l'on a sous sa garde. »

a case, the injured party does not have to prove that the supplier committed a wrongful act or omission. These provisions also apply to substances (for example GM seeds or plants) which pollute, contaminate or otherwise affect non GM products.

- 32 Under strict liability rules established under Article 1384 (1) of Luxembourg Civil Code, the actor may try to escape condemnation by proving either:
- that the damage was caused by an outside cause which is not attributable to the presumed actor and was external, unforeseeable and irresistible; here, case law ranges the events of nature, the victim's fault or act as well as a third party's fault or act²¹; or
 - the property's inactive part in the realization of the damage²².
- 33 It has to be added that under the Draft Coexistence Law, special rules – not yet effective at the time being – would protect a farmer who has unintentionally benefited from patented seeds and plants against an action from the patent holder, for example in a case of transfer from one farming land to another.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 34 Liability can also be established on the basis of neighborhood disruption²³. For liability to be incurred, two requirements have to be met. Detriment must be caused to the neighbor and such detriment must exceed normal neighborhood inconveniences. This is an objective liability and therefore not based on fault²⁴. Case-law asserts that the right to compensation is based on breach of the equal rights of neighbors to enjoy their properties²⁵.
- 35 As soon as the breach of the equal rights of neighbors arises, the owner is liable for the damage caused by the exercise of his rights. He cannot escape

21 Georges Ravarani, *La responsabilité civile des personnes privées et publiques*, Pasirisie luxembourgeoise, 2nd edition, 2006, n° 968-987, p. 749-766.

22 Georges Ravarani, *La responsabilité civile des personnes privées et publiques*, Pasirisie luxembourgeoise, 2nd edition, 2006, n° 989, p. 767

23 Article 544 of Luxembourg Civil Code: « La propriété est le droit de jouir et de disposer des choses, pourvu qu'on n'en fasse pas un usage prohibé par les lois ou par les règlements ou qu'on ne cause un trouble excédant les inconvénients normaux du voisinage rompant l'équilibre entre des droits équivalents. »

24 Court of Appeal, 8 April 1998, 31, 28 ; Court of Cassation, 29 June 2000, 31, 438.

25 Luxembourg District Court, 19 November 1982, 26, 63; 22 February 1983, 26, 113.

condemnation by proving that a third party's act was the real cause of the damage or by proving an „act of God” intervened²⁶.

4. Damage and remedies

(a) How is damage defined and measured (thereby focusing specifically on the kind of losses covered by this study)? In what way is pure economic loss handled differently to other types of losses, if at all?

- 36 The damages will be assessed on the basis of the injury suffered by the plaintiff.
- 37 Under Luxembourg law, two types of compensation are available: (i) compensation for material damages, and (ii) compensation for moral damages.
- 38 The evaluation will be made on the day the court decision determining the indemnity to be allocated to the plaintiff is rendered. The estimates used therefore are ex-post estimates.
- 39 Luxembourg law recognizes only the reparatory character of the allocation of damages. It does not allow punitive or exemplary damages.
- 40 Furthermore, the damage to be indemnified must be personal, certain and direct. It is important to stress that any future damage can also be indemnified, provided that it is proven to be certain (for example: loss of future income).
- 41 Potential damage is not indemnified. It should be underlined at that point, that Luxembourg courts also compensate a loss of chance provided the damage is proven. This requires a two part evaluation: (i) an assessment of what the victim's situation would have been if the chance relied upon had been realised, and (ii) an assessment of the chance itself, i.e. the degree of likelihood of the occurrence of the event.
- 42 Moreover, if it is very difficult to prove the existence of damages, it is very likely that a court would not allocate any compensation of damages. If the damage is proved, but it is impossible to assess its quantum in a very precise manner, the judge will assess the damage *ex aequo at bono*.
- 43 Pure economic losses are not handled differently to other types of losses.

²⁶ Georges Ravarani, La responsabilité civile des personnes privées et publiques, Pasirisie luxembourgeoise, 2nd edition, 2006, n° 300-309, p.271-283.

(b) Is the loss of a farmer whose customers only a fear that his product are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 44 Potential damage is not indemnified under Luxembourg law. Judges have to consider only future elements which present a sufficient degree of certainty and are deemed (susceptible) to be evaluated. In no case will judges consider a possible future change of situation which only constitutes a hypothetical event as such a case may not be compensated²⁷.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 45 The loss to be compensated must be personal, certain and direct. It is important to stress that any future damage can also be indemnified, provided that it is proven to be certain (for example: loss of future income).

(d) Which are the criteria for determining the amount of compensation in general, and how would this apply to the kind of cases covered by this study?

- 46 The limitations of the damages to be allocated are directly linked to the proven harm of the plaintiff. Otherwise there are no formal limits on the damages that can be claimed.
- 47 The profit made by the defendant could serve as evidence for the assessment of the damage suffered by the plaintiff.
- 48 The Luxembourg legal system, recognising only the reparatory character of the allocation of damages, does not allow damages to be of a punitive or exemplary nature. Luxembourg law considers that the State alone is competent to bring actions which are punitive and which serve as deterrents unlike damage actions which aim to obtain compensation for the alleged prejudice suffered by the plaintiff.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 49 Under Luxembourg law there are no financial limits to liability. Moreover, there are no rules to mitigate damages once liability is established.

²⁷ Court of Appeal, 26 February 1997, n° 19083.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 50 Pursuant to Article 35 of the Law, without prejudice to his responsibility towards third parties through the use or dissemination of GMOs for all purposes but marketing, the holder of a GMO authorization has to compensate the necessary costs spent by the State or the townships and by public establishments in order to fight the effects of accidents caused due to GMO presence. If the authorized activities cause damage to landscapes or nature, the holder of the GMO authorization will be obliged to put back into their original state the objects or places that suffered damage. This obligation will continue to apply to the holder of the authorization even if he ceases his activities.
- 51 The grant of Government authorization for confined use of GMOs is subject to the production by the applicant of evidence of sufficient financial guarantees. This sufficiency is estimated by the ministry. These guarantees must be provided in order to guarantee the financial consequences deriving from liability imposed on the holder of the authorization. These financial guarantees can emanate from the applicant of the authorization himself or a third party, or from an insurance contract concluded for this specific purpose²⁸.
- 52 Any Government authorization regarding intentional dissemination of GMOs for purposes other than market placing is subject, according to the Law²⁹, to a civil liability insurance contract with an authorized insurance company.
- 53 Under the Draft Coexistence Law, whoever intends to cultivate GM seeds and plants is obliged to subscribe to a civil liability insurance contract, covering any economic losses that the cultivation may cause to neighbouring non GM crops. However, this provision was strongly criticized by the Council of State, who indicated that such an obligation would pursue the same purpose as the above mentioned Article 35 of the Law, and therefore recommended the deletion of this provision.

(g) Which procedures apply to obtain redress in such cases?

- 54 Infringements of the rules laid down in the Law shall be investigated and reported by agents of the Police, ASTA, the Environment Department, Health Direction and National Health Laboratory. In the performance of their duties, these agents act in the capacity of officers of the Criminal Investigation Department. They report infringements by means of reports which are deemed true until proved otherwise. Their competences extend over the whole territory of the Grand-Duchy.

²⁸ Article 35 (3) of the Law.

²⁹ Article 35 (4) of the Law.

- 55 The above mentioned infringements are punishable by imprisonment from between 8 days and 6 months and a fine of between € 251 and 1.250.000 or only either of these penalties. Furthermore, confiscation of the infringing goods and illegal profits may be ordered.
- 56 Ecological associations have the right to commence court actions even if they do not have any material interest herein and this is so even if their collective interests double with the interests represented by the public prosecution office; they do not have a claim themselves, however, to have the original state of the places which suffered from the action restored.
- 57 Plaintiffs are able to commence actions against the author, but also directly against the insurance company on the grounds of Article 89 of the law of 27 July 1997 regarding insurance contracts³⁰. The author and his insurance company would be liable „*in solidum*”³¹.

III. Sampling and testing’ costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 58 There are no specific rules in Luxembourg law which cover costs associated with sampling and testing of GMO presence in other products.
- 59 The Health Direction as well as the National Health Laboratory are, under Article 36 of the Law, responsible for inspection and other control powers to ensure the correct implementation of the Law. Infringements are to be investigated by agents of the Police, ASTA, the Environment Department, Health Direction and National Health Laboratory.
- 60 Under Draft Coexistence Law, ASTA agents would be able to perform inspections by sampling during the certification and marketing of seeds and plants and on cultivation thereof, and can take samples including ones from seeded plots of land. They would also be allowed to inspect all supporting documents and premises in which the seeds and plants are usually stored³².

30 « L’assurance fait naître au profit de la personne lésée un droit propre contre l’assureur. L’indemnité due par l’assureur est acquise à la personne lésée, à l’exclusion des autres créanciers de l’assuré. »

31 Court of Appeal 19 February 1935, 13, 461 ; Luxembourg District Court 23 April 1993, Bull. AIDA, n° 4, p. 90; 20 April 2005, n° 91/2005 XVII.

32 Article 14 of the Draft Coexistence Law, not yet in force.

- 61 The Draft Coexistence Law contains a provision leaving to a grand-ducal regulation to lay down the fees payable by seed and plant producers that subject their crops to inspection, and may delimit cultivation areas for specific species of seeds and plants. The maximum amounts of the above-mentioned fees would not exceed € 0.50 per hundred square metres and € 10 per 100 kg of seeds or plants.
- 62 Applicants for Government authorization regarding intentional dissemination of GMOs for purposes other than market placing have to pay, according to the Law³³, a fee in excess of € 250.- though limited to € 5.000.-, to cover the government's instruction costs.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 63 There are no specific industry-based rules.
- 64 Under general rules, in the case of an accident, the authorization holder has to cover the necessary expenses expended by the State, the townships and the public establishments, including sampling and testing costs. The financial guarantee to be provided by the authorization holder has to cover such financial consequences.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 65 These costs are only recoverable if the tests prove GMO presence and if damage has occurred from the GMO crops.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 66 There are no specific provisions aimed at resolving cross-boarder cases.

³³ Article 39 (4) of the Law.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 67 Any person who can prove a direct, certain and personal interest may sue for damages before Luxembourg courts. This principle applies too for persons from outside Luxembourg, provided Luxembourg courts would have jurisdiction to rule on their claim in accordance to private international law.
- 68 The question of liability is in principle subject to the law of the place where the damage has occurred³⁴, but case-law also decides, despite the principle of the „*lex loci delicti*”, that actions for liability in tort are governed by the law of the country which it is most closely linked³⁵.

34 Luxembourg District Court, 14 July 1959, 17, 501.

35 Court of Appeal, 16 June 1970, 21, 347 ; Fernand Schockweiler, *Les conflits de lois et les conflits de juridictions en droit international privé luxembourgeois*, Paul Bauler, 2nd edition, p. 150.

17. MALTA

Eugene Buttigieg

I. Liability or Compensation Regimes

1. Introduction

- 1 GMO cultivation is allowed in Malta but requires the authorisation of the Malta Environment and Planning Authority under the terms of the Environment Protection Act (Chapter 435 of the Laws of Malta) and the subsidiary legislation enacted under it. Thus, for experimental cultivation or for the placing on the EU market for the first time of non-EU approved GMOs, authorisation is necessary under the Deliberate Release into the Environment of Genetically Modified Organisms Regulations, 2002 (LN 170 of 2002) transposing Directive 2001/18/EC, though no authorisation is required for the cultivation of GMOs which are placed on the EU common seed catalogue. Authorisation is also required for the contained use of genetically modified micro-organisms (first time use of premises and individual contained uses) under the Contained Use of Genetically Modified Micro-Organisms Regulations, 2002 (LN 169 of 2002) transposing Directive 90/219/EC. To date, however, the Authority has not received any applications concerning these activities.
- 2 However, none of the above mentioned legislations or any other legislation contain any provisions prescribing special liability or compensation for GMO contamination of non-GM crops. An official from the Malta Environment and Planning Authority reported that issues relating to liability and redress will be addressed only upon future implementation of Directive 2004/35/EC on Environmental Liability and of the Cartagena Protocol on Biosafety.
- 3 In the absence of special liability or other compensation regimes in Malta for GMOs, the general tort regime found in the Civil Code (Chapter 16 of the Laws of Malta, Articles 1029-1051A) is applicable. Article 1031 provides that 'every person ... shall be liable for the damage which occurs through his fault'.
- 4 Concurrently, the Environment Protection Act (Article 24) provides that, without prejudice to the civil law provisions on damages, any person who causes damage to the environment shall be liable to pay to the Environment Fund, set up by the same Act, such sum as may, in the absence of an agreement, be fixed by the court *arbitrio boni viri* to make good the damage caused to the environment and suffered by the community in general by the non-observance of any law or regulation by such person or by his negligence or

wilful act or inability in his art or profession. This action would be instituted by the Chairman of the Fund on behalf of the Government.

- 5 The product liability provisions (Articles 56-71A) of the Consumer Affairs Act (Chapter 378 of the Laws of Malta) provide for compensation by the producer in the case of damage caused by a defect in a product including a 'primary agricultural product'. Such liability may not be limited or excluded by any term of contract or in any manner whatsoever. These provisions do not exclude or limit the rights or remedies available to the injured person under the aforementioned provisions of the Civil Code. An aggrieved person may therefore have recourse to either remedy. However, the product liability provisions would not be applicable to economic damage caused by GMO contamination to non-GM crops as the regime is applicable only for defective products that are in circulation.
- 6 Consequently, at present, in the absence of special liability laws for GMOs, the only applicable regimes are the general ones provided by the tort provisions of the Civil Code and the provisions of the Environment Protection Act.

2. Causation

- 7 Case law relating to the general tort provisions of the Civil Code referred to above, has established that as a general rule, it must be shown that the tortious act was the immediate and direct cause of the damage (*Cefai v Attard*). However, occasionally, Maltese courts have also held that, provided the nexus is not too remote, it may suffice if the tortious act was the only indirect cause of the damage; provided, that is, that the act led to a state of affairs which would not have existed were it not for the act concerned (*Brookes v Sare* and *Mallia v Moore*).
- 8 The tort provisions of the Civil Code are silent on the question of who bears the onus of proof. However, the provisions on court procedure in the Code of Organisation and Civil Procedure (Chapter 12 of the Laws of Malta) prescribe that as a general rule, unless provided otherwise in any law, the burden of proving any fact rests in all cases on the party alleging it (Article 562). Moreover, it is an established principle in case law that the onus of proving the causal link between the damages and the unlawful act rests solely with the party claiming damages, i.e. the plaintiff (*Gatt v Calleja*).
- 9 The law does not envisage any circumstances where there might be a reversal of the burden of proof. Even where the tortious act or omission constitutes a breach of a duty imposed by law, though the plaintiff might not need to prove negligence (there were cases such as *Caruana v Skapinakis noe* where the court held that the non-observance of regulations is prima facie proof of negligence), he would still be required to prove the causal relationship between

the act or omission constituting the breach of duty and the alleged damage (Article 1033).

- 10 There are no rules allocating the costs of testing or of other means to establish causation but the general rule followed by Maltese courts is to allocate all costs borne by the party winning the case to the party losing the case. However, at law the courts enjoy wide discretion in apportioning these costs. In fact, Article 223 of the Code of Organisation and Civil Procedure, while providing that 'every definitive judgment shall award costs against the party cast', states that 'in all cases, it shall be lawful for the court to order that the costs shall not be taxed as between party and party, when either party has been cast in some of the points at issue, or when the matter at issue involves difficult points of law, or when there is any other good cause'.
- 11 Moreover, where an *ex parte* expert witness is produced by any of the parties, Article 223 leaves it up to the court to determine how the costs of this expert witness are to be apportioned between the parties. Where two or more persons are condemned in costs, in terms of Article 224, each person would be deemed to be condemned in solidum or in proportion to his interest in the cause according to the decision on the merits.
- 12 In view of this wide discretion enjoyed by the courts and given the absence of any case law concerning allocation of the costs of testing or of other means to establish causation, it is not possible to establish how a Maltese court might allocate costs incurred in proving causation in a case involving GMOs.
- 13 The law also provides for joint and several liability in the case where several persons are responsible for the same damage (Article 1049 of the Civil Code). However, since the tort regime, unlike the product liability regime, is fault-based, the Civil Code provision prescribes that in tort cases this rule applies only where all the persons concerned acted 'with malice'. Where not all the persons acted with malice, the persons who acted without malice are liable only for that part of the damage for which they are responsible. Where it cannot be ascertained for which part of the damage each is responsible, Article 1050 of the Civil Code provides that the injured party may claim that the whole damage be made good by any one of the persons concerned, even though all or some of them acted without malice, saving the right of the defendant to seek relief from the other or others.

3. Type of regime

- 14 Liability under the tort provisions of the Civil Code is based on the concept of fault (Article 1031). Article 1032 provides that 'a person shall be deemed to be at fault if, in his own acts, he does not use the prudence, diligence and attention of a *bonus paterfamilias*'; thus a 'reasonable person' standard. Moreover, there is liability for the ensuing damage when a person, even without the

intent to injure, voluntarily or through negligence, imprudence or lack of attention acts or fails to act, in breach of a duty imposed by law (Article 1033). This implies that if there were statutory rules (currently there are none) defining the required conduct for GMO agriculture, a person acting voluntarily or negligently in breach of such rules would automatically be liable for the damage caused to the traditional agricultural product but the injured party would still have to prove the damage and the causal relationship.

- 15 Liability for damages would also subsist if a person, lacking the necessary skill, undertakes any work or service and causes damage to others through his unskilfulness (Article 1038). Again, here, this implies that if GMO cultivation requires a person to have a certain specialised skill, damage caused to neighbouring non-GM crops as a result of such unskilfulness, would give rise to liability. Yet again, however, the damage and the causal relationship would have to be proved.
- 16 However, a person who makes use, within the proper limits, of a right competent to him is not liable for the resulting damage (Article 1030).
- 17 As stated above, the onus of proof of fault rests with the party seeking damages while contributory negligence would lead to a reduction in the damages awarded by court.
- 18 Moreover, *force majeure* is a defence as damage caused by *force majeure* is borne by the victim. Article 1029 of the Civil Code provides that: ‘Any damage which is produced by a fortuitous event, or in consequence of an irresistible force, shall, in the absence of an express provision of the law to the contrary, be borne by the party on whose person or property such damage occurs’.
- 19 Likewise, the compensation regime under the Environment Protection Act is also fault-based as Article 24 provides for liability for damages only where the person concerned has caused such damage through non-observance of any law or regulation or by his wilful act or negligence or inability in his art or profession.
- 20 This is in stark contrast with the product liability regime under the Consumer Affairs Act that is a strict liability regime in line with the Product Liability Directive, though it then allows a long list of defences that include the development risks defence.

4. Damage and remedies

- 21 Under the general tort regime, the damage that is recoverable is the actual loss that the tortious act has directly caused to the injured party, the expenses that the latter may have incurred in consequence of the damage and the loss of ac-

tual or future earnings suffered as a result of the tortious act (Article 1045). Thus, the damage must be certain in the sense that it is inevitable either because it has already been suffered or because a cause exists that will inevitably produce such damage. So future damage is covered provided it is inevitable. The underlying principle in the Maltese law of tort is the *restitutio in integrum*, namely that the claimant should be put in the position he would have been in, had the tortious act or omission not occurred.

- 22 However, there are no rules or criteria set out in the law concerning the quantification of damages and the courts have developed quantification rules only in the sphere of personal injury and traffic accidents, by far the most common compensation related cases to come before them.
- 23 Interest on damages due is payable from the date of the writ of summons if the plaintiff files a liquidated demand for damages in his writ or from the date of the judgment if the court has to quantify the damages itself where the claim is for unliquidated damages. Where the plaintiff's action is preceded by a judicial act requesting the defendant to pay a liquidated sum, interest runs from the date of the notification by judicial act rather than from the date of the subsequent writ of summons (*Citadel Insurance plc v Ciantar*).
- 24 Under the environmental liability regime, as explained above, in the absence of an agreement, the compensation payable to the Environment Fund for the damage caused to the environment would be quantified by the court at its discretion (Environment Protection Act, Article 24).
- 25 Under both laws there are no financial thresholds or ceilings limiting liability. However, tort law (Article 1051 of the Civil Code) provides that if the injured party contributed or gave occasion to the damage by his imprudence, negligence or lack of attention, the court would, in assessing the amount of damages payable to him, determine, in its discretion, the proportion of damage to which he has so contributed or occasioned through his negligence or imprudence and it would reduce the compensation accordingly.
- 26 There is no general or specific duty at law to obtain liability insurance or to provide for other advance cover for potential liability nor are there any general compensation schemes available under Maltese law.
- 27 Outside these regimes there is a general provision in the Civil Code that might be applicable to a situation where the GMO cultivation in one field is causing damage to non-GM crops in neighbouring fields. Article 539 of the Civil Code provides that 'where any person has reasonable cause to apprehend any serious and impending damage to a tenement or other thing possessed by him, from any building, tree or other thing, he may bring an action demanding, according to the circumstances, either that the necessary steps be taken to obvi-

ate the danger, or that the neighbour be ordered to give security for any damage the plaintiff may suffer therefrom’.

- 28 Actions for damages fall within the competence of the Courts of Civil Jurisdiction. For claims exceeding Lm 5000 (equivalent to 11,000 euro) the competent court is the Civil Court, First Hall while for claims below this figure but exceeding Lm 1500 (equivalent to 3400 euro) the competent court is the Court of Magistrates and below this figure the Small Claims Tribunal. There is a right of appeal to the Court of Appeal.
- 29 The limitation period for an action for damages in tort is two years (Article 2153 of the Civil Code) but if the tortious act or omission constitutes a criminal offence, the limitation period applicable even for the civil action would be the one prescribed for the criminal action (Article 2154(1) of the Civil Code). On the other hand, the limitation period for the action for damages in respect of environmental liability under the Environment Protection Act is eight years (Article 24).

II. Sampling and testing costs

- 30 There are no specific rules governing the costs associated with sampling and testing of GMO presence in other products. The Deliberate Release into the Environment of Genetically Modified Organisms Regulations, 2002 require the applicant, seeking authorisation for the placing on the market of GMOs, to make control samples available to the Authority on request. In the case of the deliberate release of GMOs for other purposes (other than for placing on the market), the Authority is empowered by the same regulations to carry out tests or inspections as may be necessary for control purposes. However, in neither case do the regulations deal with the issue of the costs of such testing or sampling.
- 31 Nor are there any general rules relating to the issue of sampling and testing costs. However, the Product Safety Act (Chapter 427 of the Laws of Malta) that empowers the Director of Consumer Affairs to carry out testing and sampling and other control measures to ensure the safety of products, in Article 33 provides that the Court, on convicting a person of an offence under the Act, may order that person to reimburse to the Director the costs incurred in the testing, analysis, inspection and examination of the product or samples thereof involved in the court proceedings. In the absence of specific rules, the Court might, by analogy, take a similar approach in the case where damages have been shown to result from GMO presence.

III. Cross-border issues

- 32 There are no special jurisdictional or conflict of law rules for economic harm of the kind envisaged by this questionnaire nor any specific provisions aimed at resolving cross-border cases.
- 33 The general conflict of law rules on jurisdiction are set out in Articles 742-744 of the Code of Organisation and Civil Procedure. However, it is expressly stated that where there is a conflict between the provisions of a regulation of the European Union on this matter and the provisions of this Article, the former shall prevail in respect of matters falling within their domain. Consequently, cross-border jurisdiction issues within an intra-Community context are regulated by Regulation 44/2001. Moreover, Article 20 of the Act of Accession, by amending Annex 1 of Regulation 44/2001, makes the said Articles 742-744 of the Code of Organisation and Civil Procedure inapplicable to cases where the defendant is domiciled in a Member State.
- 34 However, in the cases where Regulation 44/2001 is not applicable (e.g. where the defendant is not domiciled in a Member State), Article 742 of the Code of Organisation and Civil Procedure provides that Maltese civil courts shall have jurisdiction concerning the following persons:
- (a) citizens of Malta, provided they have not fixed their domicile elsewhere;
 - (b) any person as long as he is either domiciled or resident or present in Malta;
 - (c) any person, in matters relating to property situated or existing in Malta;
 - (d) any person who has contracted any obligation in Malta, but only in regard to actions touching such obligation and provided such person is present in Malta;
 - (e) any person who, having contracted an obligation in some other country, has nevertheless agreed to carry out such obligation in Malta, or who has contracted any obligation which must necessarily be carried into effect in Malta, provided in either case such person is present in Malta;
 - (f) any person, in regard to any obligation contracted in favour of a citizen or resident of Malta or of a body having a distinct legal personality or association of persons incorporated or operating in Malta, if the judgment can be enforced in Malta;
 - (g) any person who expressly or tacitly, voluntarily submits or has agreed to submit to the jurisdiction of the court.

- 35 Consequently, the courts would have jurisdiction to take cognizance of actions in tort concerning GMO contamination that has occurred in Malta provided the defendants are domiciled, resident or present in Malta. In terms of Article 4(2) of Regulation 44/2001, this applies irrespective of whether the plaintiff is domiciled in Malta or in another Member State.
- 36 The jurisdiction of the Maltese courts is not excluded by the fact that a foreign court is seized with the same cause or with a cause connected with it. Where a foreign court has a concurrent jurisdiction, the courts may in their discretion, declare the defendant to be non-suited or stay the proceedings on the ground that if an action were to continue in Malta it would be vexatious, oppressive or unjust to the defendant.
- 37 As far as choice of law rules are concerned, the principle followed by Maltese private international law in relation to actions in tort is that the applicable law is the *lex loci delicti commissi* so that in this case the applicable law would be the law of the country where the GMO contamination has occurred.

18. NETHERLANDS

Melissa Moncada Castillo/Willem H. van Boom

I. General Liability or other Compensation Schemes

1. Introduction

- 1 There are no specific rules on liability or compensation of damage relating to GMO crops. Obviously, there have been some proposals originating from stakeholders that liability issues should indeed be dealt with and that some compensation scheme should be put in place.¹ No political action has been taken until now. Therefore, the common rules of private tort law apply.
 - 2 Dutch law distinguishes between fault-based liability for wrongful acts, on the one hand, and strict liability, on the other. In Dutch law, fault-based liability for wrongful acts is codified in Art. 6:162 *Burgerlijk Wetboek* (Civil code, BW):
 1. A person who commits a wrongful act vis-à-vis another person, which can be imputed to him, is obliged to repair the damage suffered by the other person as a consequence of the act.
 2. Save grounds for justification, the following acts are deemed to be wrongful: the infringement of a subjective right, an act or omission violating a statutory duty, or conduct contrary to the standard of conduct seemly in society.
 3. A wrongful act can be imputed to its author if it results from his fault or from a cause for which he is answerable according to law or common opinion.
 - 3 As the first paragraph of Art. 6:162 BW suggests, fault-based liability consists of two main elements: the wrongfulness of the act itself, and imputability of the act to the person acting. According to the second paragraph of Art. 6:162 BW, there are three categories of wrongful acts: infringement of subjective rights (e.g., property and physical inviolability), acts contrary to a statutory duty, and acts contrary to ‘maatschappelijke betamelijkheid’ (i.e., the standard of conduct seemly in society). The category of acts contrary to the standard of
- ¹ See *Coëxistentie Primaire Sector - Rapportage van de tijdelijke commissie onder voorzitterschap van J. van Dijk; commissiepartijen: Biologica, LTO Nederland, Plantum NL en Platform Aarde Boer Consument*, The Hague November 2004.

conduct seemly in society is by far the most important, especially when the injured party cannot make a claim on the basis of a direct infringement of his property right or physical inviolability. According to case law, a great many factors determine wrongfulness in a concrete case, e.g., foreseeability of the loss (also described as the chance of a loss occurring as a result of the act), the degree of blameworthiness, the costs of avoiding the loss, the nature of the damage, and the relationship between the injured party and the injurer. A *prima facie* wrongful act is considered not to be wrongful whenever *force majeure*, self-defence, or a statutory provision justifies it.

- 4 The second element, that of imputability, is divided into three alternative grounds for imputation, the first of which is currently the most important: the person can be blamed for his act ('schuld', i.e., fault, blameworthiness), or his act or its cause must be imputed to him, either on a statutory basis, or plainly because the 'verkeersopvattingen' (i.e., an unwritten source of legal and moral opinion, as it is expressed in case law) demand it. So, according to the third paragraph, tortious liability is incurred not only in a case of subjective fault, but also in a case of objective 'answerability'. The scope of this 'answerability', as an alternative for a 'fault', remains unclear.
- 5 As far as strict liability is concerned, there are, generally speaking, two main categories of strict liability: strict liability for wrongful acts of other individuals, and strict liability for objects and substances. The former category includes strict liability for employees and for agents, while the latter includes liability for defective moveable objects, buildings and structures, products liability, and liability for the inherent risks of hazardous and noxious substances.
- 6 From the above-mentioned it follows that Dutch law starts by addressing the issue of wrongfulness rather than with the question whether the infringed interest is protected by tort law. Dutch tort law tends not to exclude purely economic interests from protection. Practically speaking the specific case at hand is decisive for the outcome: sometimes the courts conclude that the act or omission was wrongful with regard to the infringed economic interest, and sometimes they conclude that there was no wrongful act. Therefore, pure economic interests as such enjoy protection under tort law just as much – in theory at least – as life, limb, and property. In short, 'economic damage' resulting from GMO presence in traditional crops may be compensated if the respondent is held to have acted (imputably) wrongfully vis-à-vis the claimant.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 7 According to Dutch law, a two-stage test must be applied. First, the well-known *conditio sine qua non* ('but for') test is applied. According to this requirement there is a causal link between the damage and the GMO presence, if the GMO presence was a necessary condition for the existence of the damage. In other words: without the presence there would not be any damage.
- 8 Obviously, this requirement is too extensive; without any further delimitation too many causal links between GMO presence and damage would be seen as the cause of the damage. Therefore, if the first test is met a second is applied: the imputation test. The test is laid down in Art. 6: 98 BW, which reads:

„Compensation can only be claimed insofar as the damage is related to the event giving rise to liability in such a fashion that the damage, also taking into account its nature and that of the liability, can be imputed to the debtor as a result of this event.”
- 9 The test was further developed in case law. For instance, the Dutch Supreme Court decided that for the establishment of the causal link it was also necessary that the damage was reasonably imputable to the act (or omission as the case may be).² This requirement was thus called the requirement of „reasonable imputability”. For a specific damage caused by (in the sense of: *conditio sine qua non*) an unlawful action to be imputable, there are a number of relevant factors that have to be balanced. In general, the damage should not be too exceptional as a result of that unlawful action, nor in such a distant relation with it, that it cannot reasonably be imputed to the liable person.
- 10 The aforementioned case law has been codified in art. 6:98 BW. However, art. 6: 98 BW identifies only two of many factors that decide imputation: the nature of the damage and the nature of the liability. Although foreseeability of the damage is not mentioned in Art. 6:98 BW, it surely is an important factor as well. As far as the nature of the damage suffered is concerned, both case law and doctrinal writing are inclined to stretch the limits of causal connection very far whenever bodily harm is involved, somewhat less far when damage to property is involved, and the least far in the case of loss related to neither of the former two categories (i.e., pure economic loss).
- 11 It must be stressed that before the ‘reasonable imputability’ can be invoked, in principle the *conditio sine qua non* test should be met first. There are, how-

² HR 20.3.1970, NJ 1970, 251, *Waterwingebied*.

ever, specific conditions under which the requirement of *conditio sine qua non* does not apply:

- In the case of alternative causation
 - In the case of two independent concurring causes where each has the ability to bring about the entire damage
- 12 In the case of GMO crops first it must be determined whether the presence of GMO in crops causes any damage to human health. Otherwise it cannot be said that the presence of GMO in crops is a *conditio sine qua non* for the damage. To answer this question in the more general sense, scientific research was instigated. The Dutch government was one of the financiers for the realization of this research project. The research was reported in an article which is still pending publication.³ Until those results are published, the question about the causal link will remain very uncertain. This is also the reason why there is no case-law concerning this matter i.e. because there is no evidence that GMO is harmful to human health. If the results of the research do point out that GMO crops in fact are harmful to human health, the Dutch government will have to take measures in response thereto.
- (b) How is the burden of proof distributed?
- 13 No specific statutory rules or case law are applicable. Therefore the general principles apply. As a starting point the burden of proof lies on the claimant. This rule is laid down in article 150 RV (*Wetboek van Burgerlijke Rechtsvordering*, Code of Civil Procedure). The claimant has to prove the facts underpinning his claim regarding the wrongful act committed. There are two exceptions to this general rule. Firstly, when reasonability and equity desire a different distribution of the burden of proof. For example: under specific circumstances arising when the respondent can more easily obtain the documents needed. Secondly, when an exceptional statutory rule desires a different distribution. For example: art. 6:195 concerning misleading commercials.
- 14 With regard to the burden of proof concerning causation, the Dutch Supreme Court (*Hoge Raad*) has in recent years developed the so-called *omkeringsregel*, the ‘reversal rule’. In a number of decisions the *Hoge Raad* has stated that, if an act which constitutes a wrongful act, is known to create a risk that a specific damage will occur, and if this risk subsequently materialises (so the damage occurs), the causal link between the damage and the act is presumed present, unless the respondent proves otherwise. This rule has been applied, for instance, in traffic accident cases and medical malpractice cases. If this reversal rule is indeed as general a rule as it seems to be, the risk of unknown causes of damage might rest with any respondent who could have caused the

3 See www.vrom.nl/pagina.html?id=23102.

damage. However, the exact scope and effect of the reversal rule are still unclear. In recent cases, the extent has been limited to cases in which the risk that materialised was of a certain specific nature that could be associated easily to the wrongful act. Hence, the rule is easily applied to contamination of a neighbouring crop if the contaminating substance is easily associated with a specific GMO-crop in the area. It is unlikely, however, that it can be applied in a case where a GMO-farmer has acted wrongfully by not taking precautionary measures against migrating pollen dispersal and a drop in profits experienced by all corn producing farmers results after negative publicity. Although there may be evidence of the intermediate cause of negative publicity with respect to corn as such, the market price mechanisms ruling corn trade are far too complicated to say that a drop in profits in corn farming is typically associated with negligent GMO-farming.

(b) How are problems of multiple causes handled by the general regime? Does it include special rules on alternative, potential or uncertain causation? Is liability channelled to a particular person, and if so, how? Is joint and several or other collective liability foreseen, and under which conditions?

- 15 When different persons are liable for damage caused to one claimant, there is a plurality of debtors. The main rule is that all the debtors are liable for an equal share unless they are liable for an unequal share as a result of statutory provision, usage or contract (art. 6:6 (1) Civil Code). With regard to concurrent tortious acts of two or more persons that concurrently cause the entire damage, art. 6:102 Civil Code states that they are jointly and severally liable. Furthermore, art 6:166 Civil Code provides for joint and several liability in the event that a concerted action causes the wrongful damage.
- 16 In the case of multiple uncertain causes, art. 6:99 Civil Code provides the following. When the damage may have resulted from two or more events, each of which a different person is liable for and it has been determined that the damage may have been caused by at least one of these events, each one of these persons is liable and therefore liable to repair the damage, unless he can prove that the damage is not a result of the event for which he is liable. Hence, the burden of proof is reversed. The Supreme Court has applied this rule extensively in the *Des-dochters* case (HR 9-10-1992, NJ 1994, 535). In this landslide case six women who were injured by a drug claimed compensation from ten different manufacturers of that drug. The women could not prove whether the drug had been marketed by one of the producers (but given their market share it was rather likely that the drug in fact originated from one of them). The Supreme Court decided that all ten producers of the drug were jointly and severally liable. It can be said that this rule also includes uncertain causation.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed? Does it make any difference if there are clearly established statutory rules defining the required conduct for GMO agriculture?

- 17 Fault-based liability for unlawful acts is based on article 6:162 BW (Civil Code). Fault-based liability consists of four elements: there must be an unlawful act, the act must be imputable to the actor, there must be damage and there must be a causal link between the damage and the presence.
- 18 First, as said, there must be an unlawful act. Article 6:162 Civil Code defines three acts as unlawful: the infringement of a subjective right, an act or omission violating a statutory duty (e.g., importing a banned GMO-product), or conduct contrary to the standard of conduct seemly in society. This last category of so-called „conduct contrary to the unwritten standard of conduct seemly in society”, the so-called ‘maatschappelijke betamelijkheid’, is the most important one. It can be considered a residual category: whenever the injured party cannot base his claim on either of the first two categories, this last one is his last alternative. Because of its broad scope, many claims are based on this category.
- 19 Second, the person that committed the unlawful act has to be imputable. For this element the unlawful act must result from his fault (fault-based liability), or from a cause for which he is answerable according to law or common opinion (strict liability). This will be described in the following question. To determine whether there is blameworthiness, theoretically a distinction must be made between the actor and the act. First it must be determined whether the act was unlawful. When that is determined, the actor must be judged. Could and should he have acted in a different way? In other words: would a reasonable person have acted in the same way? As said, this distinction is made in theory, in practice, however, the actor and the act cannot easily be isolated. Thus, in most cases the actor will be considered to have been blameworthy if the act in itself is wrongful.
- 20 Third, there must be damage. According to article 6:95 Civil Code, damage consists of patrimonial damage and non-patrimonial damage. Patrimonial damage includes incurred costs and loss of profit (article 6:96 Civil Code). Death, personal injury, property damage and pure economic loss are on equal footing in this regard.
- 21 With regard to non-pecuniary loss the following is relevant. The injured party may only claim non patrimonial damage in one of the situations mentioned in article 6:106 Civil Code. Firstly, if the liable party had the intention to cause immaterial damage. Secondly, if the injured party has a physical injury, if his

reputation or his honour is damaged, or if his person is harmed in any other way. Thirdly, if the reputation of a person who passed away is damaged (only if that person would, were he alive, have also had the right to compensation for damage to his reputation).

- 22 The final requirement is that there must be a causal link between act and damage. This consists of a two-stage test. First, as a rule there must be *conditio sine qua non* (but for test). This test determines whether the act was a necessary condition for the damage. Second, there is the 'reasonable imputability test': it must be reasonable to impute the resulting damage to the act that caused it.
- 23 The burden of proof is distributed in the same way as described supra. The claimant must prove the existence of the wrongful act. This task consists of proving all four elements as described. This general rule has two exceptions: when reasonability and equity desire a different distribution of the burden of proof and secondly, when an exceptional rule desires a different distribution.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

- 24 There are two main categories of strict liability: strict liability for unlawful acts of other individuals and strict liability for defective objects and substances. Strict liability for unlawful acts of other individuals includes liability of children, subjects and representatives. Strict liability of defective objects and substances include mobile objects, buildings, dumps, animals and substances.
- 25 Here, there may be two relevant sources of liability. Vicarious liability (article 6:170 Civil Code) and strict liability for hazardous substances (art. 6:175 Civil Code).⁴

(ii) Vicarious liability

- 26 Art. 6:170 Civil Code defines the liability for tortious acts committed by employees. According to subsection 1 of this article, liability for employees lies on the person in whose service the subject fulfils his duties, if the possibility of committing a mistake was increased by the assignment to fulfil the duty and this person had control over the conduct of the subject.

⁴ See generally W.H. van Boom and C.E. du Perron, the Netherlands, in: B.A. Koch, H. Koziol, Unification of Tort Law: Strict Liability, the Hague : Kluwer Law International 2002, p. 227-255.

(iii) Hazardous substances

- 27 Article 6:175 Civil Code defines the liability for hazardous substances. Liability rests on anyone who uses or keeps the dangerous substance in his profession or business. As follows from the criteria of art. 6:175, non-professional possessors cannot be held strictly liable.
- 28 Art. 6:175 Civil Code may be relevant if it is generally acknowledged that the GMO crop poses a specific, inherent and serious threat to life and limb and this risk materializes. Hence, this strict liability can only be applied to inherent dangers of substances which are scientifically proven at the time of the damaging event or exposure. This is not (yet) the case.
- 29 Art. 6:175 creates a strict liability for dangerous substances used or kept in the course of business or trade. The article defines a dangerous substance as a substance of which it is known that it has such properties as to pose a special danger of a serious nature to persons or things. Such a ‘special danger’ is posed in any case (according to the article) by substances which are explosive, oxidative, flammable, or poisonous as defined in specific public law legislation. We do not think that according to the current state of science GMO’s as such can be considered dangerous substances. This may depend, however, on the specific case and the specific dangers the GMO may pose to persons or things. The Ministry of Justice has taken the position that GMO-crops are unlikely to file under ‘dangerous substances’ in the sense of art. 6:175 Civil Code.⁵ Whether this will also be the courts’ position, remains to be seen.
- 30 Liability arises if the ‘special danger’ materializes. Since the danger is defined as being ‘to persons or things’, compensation of *pure* economic loss cannot be based on this article. Hence, we believe that even if GMO was to be considered a dangerous substance under art. 6:175 Civil Code, a mere drop in turnover as a result of the absence of consumer confidence in crops neighbouring GMO-crops would not file as compensable damage.
- 31 According to art. 6:178 liability on the basis of art. 6:175-177 is excluded, inter alia, in the following situations:
- a) the damage is the result of armed conflict, civil war, revolt, riots, insurrection or mutiny;

5 See *Notitie Ministerie van Justitie – Aansprakelijkheid voor schade in het kader van coëxistentie van gg-gewassen en conventionele en biologische gewassen*, in: *Coëxistentie Primaire Sector - Rapportage van de tijdelijke commissie onder voorzitterschap van J. van Dijk; commissiepartijen: Biologica, LTO Nederland, Plantum NL en Platform Aarde Boer Consument.*, The Hague November 2004, p. B57.

- b) the damage is the result of a natural event of a exceptional, unavoidable and irresistible nature;
- c) the damage is solely caused by following an order or regulation of the government;
- d) the damage is intentionally caused by a third party;
- e) the damage is (the result of) a nuisance, pollution or any other consequence for which no liability would have existed on the basis of the general principles of tort law if the defendant would have caused it intentionally (so the damage is considered an ordinary burden that one has to carry).

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 32 According to art. 5:37 Civil Code, an owner of a piece of land is not allowed to cause nuisance like noise, vibrations, foul odours, smoke etc. in a way that would cause a wrongful act in accordance with art. 6:162 Civil Code. This article has two aspects. First, it is not permitted for an owner of a piece of land to use his property in a way that causes wrongful nuisance to neighbours (the offensive function). This is a limitation of his property rights. On the other hand, the owner of a piece of land does not have to put up with wrongful nuisance from any neighbour (the defensive function). However, article 5:37 is not considered to hold a strict liability. In fact, nuisance can only be considered to be wrongful in accordance with the requirements laid down in art. 6:162 Civil Code. In other words, either an infringement of a subjective right or an act or omission violating a statutory duty, which is imputable to the actor can be a source of tortious liability for nuisance. According to a steady line of case law, liability depends on factors such as: the extent of the risks, the possibility and cost of taking precautionary measures, the nature and extent of the use of the land, prior use of land, et cetera.⁶
- 33 Thus, the presence of GMOs in crops owned by a neighbouring farmer may under specific circumstances amount to a wrongful act. Then the presence of GMOs by a neighbouring farmer can indeed be seen as wrongful nuisance. With regard to the position of the claimant, nuisance can only lead to a claim for compensation if the nuisance was in fact an imputable tortious act of the respondent.

⁶ See also See *Notitie Ministerie van Justitie – Aansprakelijkheid voor schade in het kader van coëxistentie van gg-gewassen en conventionele en biologische gewassen*, in: *Coëxistentie Primaire Sector - Rapportage van de tijdelijke commissie onder voorzitterschap van J. van Dijk; commissiepartijen: Biologica, LTO Nederland, Plantum NL en Platform Aarde Boer Consument.*, The Hague November 2004, p. B57 ff.

4. Damage and remedies

(a) How is damage defined and measured (thereby focusing specifically on the kind of losses covered by this study)? In what way is pure economic loss handled differently to other types of losses, if at all?

- 34 According to article 6:95 Civil Code, damage consists of patrimonial damage and non-patrimonial damage. Patrimonial damage includes loss suffered and loss of profit (article 6:96 Civil Code).
- 35 The victim of the wrongful act has a right to compensation for patrimonial damage when the evidence of a wrongful act is established. Furthermore, there must be a causal link between the damage and the wrongful act (article 6:98 Civil Code); only damage which is related to the event giving rise to the liability of the debtor in such a way that it can be imputed to the debtor as a result of this event is claimable. For non-patrimonial damage (non-pecuniary loss), there is an extra condition: the injured party may only claim non-patrimonial damage in one of the situations mentioned in article 6:106 Civil Code.
- 36 As such, pure economic loss is not special under Dutch law (see *supra*, introduction). If the conduct of the respondent is held to be wrongful and all the requirements laid down in article 6:162 BW have been met, then there is liability. Liability may include pure economic loss. No specific thresholds apply with regard to pure economic loss. Having said that, it may well be possible that the court may consider the respondent not to have acted tortiously vis-à-vis the claimant on the basis that the claimant's interest was of a purely economic category. This depends on the case at hand.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?

- 37 Although there are no court decisions on this matter, we feel that the loss of a farmer whose customers only fear is that his products are no longer GMO free will not easily be compensated under tort law. We think that a court would prefer the proof of a wrongful act or omission leading to admixture. Having said that, it is theoretically speaking possible that a GMO-farmer can be held liable for, e.g. not informing neighbouring farmers of his GMO-activities – thus depriving them of the possibility to take precautionary measures. In that case, the liability can also cover pure economic losses such as sudden drop in turnover. Dutch law does not set actual admixture or interference as a formal prerequisite for liability, so in effect the adjudication of compensation for pure economic loss is feasible. Whether compensation is granted may depend on the specific facts of the case.

(c) *Where does your legal system draw the line between compensable and non-compensable losses? Are, for example, the losses of farmers in a region covered where the crops of only one of them have been contaminated, but where consumers fear that the entire region is affected?*

- 38 There is no clear cut answer to this question, as much will depend on the specific case at hand. Dutch law does not work with pre-set circles of meritorious claims. According to art. 6:98 Civil Code a causal link between the damage and the act of the debtor is required. This causal link is established if the damage is related to the debtor's act giving rise to his liability in such a way that it can be imputed to him. In the example only one of the crops in a region is actually contaminated, but consumers fear that the entire region is affected. This fact can be of influence with the establishment of the causal link, but it cannot directly determine whether damage is compensable or not. Hence, Dutch law leaves much leeway to the courts to cater for the specific needs of the case at hand.

(d) *Which are the criteria for determining the amount of compensation in general, and how would this apply to the kind of cases covered by this study?*

- 39 To determine the amount of compensation in pure economic loss cases, the courts are inclined to calculate the *real* costs incurred and the *plausible* drop in profits. In the so-called 'cable case' the Supreme Court decided that the claimant had to prove the extent of his damage by proving the actual and irreversible drop in turnover.⁷ The claimant could not claim the profit he usually made on the production over the five hours he was cut of from energy supplies, but he had to show that the interruption was not redressed afterwards (e.g., by working overtime).

(e) *Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?*

- 40 In principle, compensation is *in full*. Reduction of the amount can be based on contributory negligence of the claimant (art. 6: 101 Civil Code).⁸
- 41 Apart from contributory negligence, there are two ways to limit the statutory obligation to pay damage compensation. First, there is art. 6:109 Civil Code. Art. 6: 109 BW reads:

7 See HR 18-4-1986, Nederlandse Jurisprudentie 1986, no. 567. For further details, see, e.g., W.H. van Boom, Pure economic loss in the Netherlands - the case study. In Busani, Mauro & Palmer, V.V. (eds.), Pure Economic Loss in Europe . (CSICL, 3, pp. 171-522). Cambridge 2003: Cambridge University Press, with further references.

8 On art. 6:101 Civil Code, see, e.g., W.H. van Boom, Contributory Negligence under Dutch Law. In Magnus, U. & Martin-Casals, M. (Ed.), Unification of Tort Law: Contributory Negligence. (pp. 129-148). The Hague : Kluwer Law International 2004.

1. The judge may reduce the obligation to repair damage if awarding full reparation would lead to clearly unacceptable results in the given circumstances, including the nature of the liability, the legal relationship between the parties, and their respective financial capacities.
 2. The reduction may not exceed the amount for which the debtor has covered his liability by insurance or was obliged to maintain such a cover.
 3. Any stipulation derogating from paragraph 1 is null and void.
- 42 According to art. 6:109 Civil Code the court may reduce the statutory obligation to pay compensation. This discretionary power can be used in the unlikely event that full compensation would lead to a clearly unacceptable outcome. This discretionary power is hardly ever used, but it may be used, e.g. if unabated compensation would render the respondent insolvent. It is assumed that the decision to reduce the amount due is based not only on the concrete financial consequences of full liability, but also on the degree of blameworthiness, the nature of the liability (fault-based or strict liability?), and the possibility of a cascade of claims.⁹
- 43 Second, maximum liability amounts (ceilings, caps) can be set by legislation (art. 6:110 Civil Code). This is done to avoid the situation when the damage compensation exceeds the amount that can be covered by insurance. There is no legislation imposing a limitation with regard to GMO liability. Hence, in a given case only the court can reduce the amount of compensation in accordance with art. 6:109 Civil Code.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 44 There is no general or specific statutory duty on ‘operators’ to take out liability insurance, although specific public law legislation does enable local authorities to oblige some operators to take out some form of insurance or a bank guarantee for clean-up cost related to ultrahazardous activities.¹⁰ In practice, this does not seem to apply to GMO-farmers.

(g) Which procedures apply to obtain redress in such cases?

- 45 Not applicable.

⁹ See A.S. Hartkamp, *Verbintenissenrecht; deel I – De verbintenis in het algemeen* [Mr. C. Asser’s handleiding tot de beoefening van het Nederlands Burgerlijk recht], 11th ed., Deventer 2000, no. 494.

¹⁰ Besluit financiële zekerheid milieubeheer, in: Staatsblad 2003 nr. 71, based on art. 8.15 Wet milieubeheer.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

46 Not applicable.

II. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

47 No, there are no specific rules concerning the covering of sampling and testing costs. Costs associated with sampling and testing of GMO presence in other products are seen as patrimonial damage, see art 6:96 Civil Code subsection 2 under b. These costs are made to assess damage and liability. As a result of this, sampling and testing of GMO presence in products are covered by damage compensation. As a condition there must be a causal link between the act and the eventual damage.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

48 According to good Dutch tradition, stakeholders are usually stimulated to solve their problems and reconcile their opposing interests with private agreement (covenants) rather than by lobbying for legislative intervention. In principle, covenants are private law agreement between the parties involved. Recently, the „Covenant Coëxistentie“ was signed, on the basis of which some GMO-crop tests are currently being performed.

49 Generally speaking, the covenant intends to bring all stakeholders concerned together with the goal of arranging a compensation scheme outside the tort system and based on mutual agreement. The gist of the arrangement – which has not yet been elaborated into concrete rules – is that all parties concerned will try to set up an information and damage mitigating system (including monitoring and mitigation of admixture and nuisance) and that compliance with the voluntary regime should suffice (in other words: compliance should render immunity from liability). Parties have in principle agreed that some sort of fund should be set up to compensate residual damage. Note that these words have not yet been transposed into action.

50 Although covenants do not have the status of law, acts or omissions in contravention of covenants may amount to wrongful behaviour if the covenant has been accepted throughout the agricultural industry. In that case the covenant may amount to a standard of behaviour seeming in that part of society (which

is relevant for the application of article 6:162 Civil Code). This strongly depends on the specific facts of the case and the level of compliance within the industry with the covenant.¹¹

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 51 Such costs are recoverable under tort law, even if the test does not prove actual GMO presence. In this case although there is no admixture damage, the costs can still be recovered provided that liability of the GMO farmer is established. For example: a farmer has used some GMO in his crops in breach of a statutory ban, and consequently the GMO-crop is suspected of having contaminated other crops of an adjacent farmer. The farmer pays for testing his crop and he claims the cost of these tests from the GMO-farmer. The test reveals that no admixture has occurred and customers have kept on purchasing the products of the claimant. Hence, the farmer does not suffer any damage, but the GMO farmer is still liable for breach of a statutory provision. If the test proves GMO presence but no admixture the respondent GMO farmer can be held liable for the expenses incurred in connection with the test. The basis for this claim is article 6:96 Civil Code: the claimant is to be reimbursed for the reasonable cost of assessing liability and possible damage even if the wrongful act turns out not to have caused damage.¹²

III. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 52 No, there are no special jurisdictional or conflict of laws rules in force or planned in the Dutch jurisdiction.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 53 This is to be answered according to the general rules for jurisdiction and applicable law in tortious liability. According to the general rules of private in-

¹¹ See *Notitie Ministerie van Justitie – Aansprakelijkheid voor schade in het kader van coëxistentie van gg-gewassen en conventionele en biologische gewassen*, in: *Coëxistentie Primaire Sector - Rapportage van de tijdelijke commissie onder voorzitterschap van J. van Dijk; commissiepartijen: Biologica, LTO Nederland, Plantum NL en Platform Aarde Boer Consument.*, The Hague November 2004, p. B56 ff.

¹² See *Hoge Raad* 11 July 2003, *Nederlandse Jurisprudentie* 2005, no. 50.

ternational law (notably the Brussels I regulation art. 1, 2 subsection 1 and art. 59 or 60) and dependant on whether the defendant is a natural person or a juristic person, the courts of the country where the respondent has his permanent address usually is competent. As far as the applicable law is concerned, usually the second question can be answered by the Wet Conflictenrecht Onrechtmatige daad (wrongful act conflicting law-act). According to the general principles of private international law, the *lex loci delicti* will apply.¹³

¹³ See, generally, Wet Conflictenrecht Onrechtmatige daad (Statute on the private international law aspects of tortious liability) art. 3 subsection 1.

19. NORWAY

Bjarne Askeland

I. Special Liability or Compensation Regimes

1. Introduction

- 1 As of ultimo December 2006 there is no commercial production of genetic modified crops in Norway. One has, however, already in 1993 enacted a special act concerning genetic technology, the Norwegian Act on Genetic Technology (*Lov om framstilling og bruk av genmodifiserte organismer [genteknologil.]* 2. April 1993 nr. 38). This act comprises a number of regulatory provisions designed to safeguard that the production and use of genetic modified organisms is exercised in an ethical manner that is prudent in the light of societal interests. In addition the act features a general liability clause in its § 23. A translation of the clause reads as follows:

„One who is responsible for activity under the scope of this statute, is liable without fault when the activity by placing or emitting genetic modified organisms into the environment causes damage, inconvenience or loss. In addition the rules enacted in the pollution act (*forurl.*) chapter 8 on liability for pollution applies as far as they are appropriate.”
- 2 This provision will cover a situation where non-GM crops are being infected by GM crops. As one can see, there is strict liability for the kind of damage that is described in the questionnaire. The requisites concerning causation and damage are formulated in a simple way, with no special designed rules to meet the special problems connected to GMO. In accordance with the general method of interpretation in Norwegian law, the mentioned requisites have to be interpreted in the light of general tort law principles. Because of this, the questions in part I of this questionnaire will to a certain extent be answered by reference to the outline of the general tort law regime that is given as an answer to part II of the questionnaire.
- 3 One should particularly notice the last sentence in the cited statutes, which refers to *Forurensingsloven (forurl.)* 13 March 1981 no 6 (the Norwegian Pollution Act) and makes the rules in this act applicable to GMO cases. In the Pollution Act there is strict liability for the owner of premises or industrial facilities which cause pollution damage, cf. *forurl.* § 56. With regard to GMO cases this basis of liability will be overlapped by – or consumed by – *genteknologil.* § 23. But the special regulation of multiple polluters in § 59

will be applicable to GMO cases via the mentioned reference to *forurl.* in *genteknologil* § 23.

- 4 The rules mentioned above form together a sort of special regulation of the GMO cases. But the rules are not so detailed or especially designed that it would be fair to say that Norwegian law has a special „liability regime” for GMO cases.
- 5 The liability clause in *genteknologil.* § 23 is currently being examined both by The Ministry of Environmental Issues and The Ministry of Justice with regard to the need for more precise liability rules. As of medio December the ministries have not yet decided whether they want to initiate new statutory provisions at this point. The ministries are also contemplating whether there is a need for establishing a special fund covering damage that stems from GMO crops.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 6 The wording of *genteknologil.* § 23 requires that „the activity” („virksomheten”) ... causes damage („volder skade”). This will be interpreted as a reference to the general conditions of causality within tort law. Hence the ordinary criteria of *conditio sine qua non* supplemented with the qualification of a „substantial cause”, a sort of adequacy test, would apply.¹
- 7 There are no special rules concerning the costs of testing. This question will be governed by the general rules on the subject which is described in no. 47-50 below.

(b) How is the burden of proof distributed?

- 8 There are no special rules concerning the burden of proof. The different sources of adventitious presence of GMOs are not taken into account. These problems must be solved by the general rules cf. part II below.

(c) How are problems of multiple causes handled by the regime?

- 9 As mentioned above, the reference from *genteknol.* § 23 to *forurl.* makes the special rule concerning multiple potential tortfeasors in *forurl.* § 59 applicable to GMO cases. According to this provision it is sufficient for liability that an actor *may* have caused pollution damage. The actor is only exonerated where the actor can prove that he is *not* the cause. Moreover, § 59 reads that the two

¹ The general conditions of causality are more precisely explained in no. 39-40 below.

or more actors are jointly held liable unless they prove that they have not been engaged in activity that pollutes the environment. This solution is specifically articulated in the preparatory works of the act. It also follows from an adequate interpretation of § 59 *forurl.*:

„One who causes pollution which alone or together with other harmful causes may have caused the pollution damage, is considered to have caused the damage unless it is proved that another cause is more likely to have caused the damage.”

- 10 As one can observe, the burden of proof is reversed. While the general rule is that the claimant has to prove that the alleged polluter actually has caused the damage, the polluter according to § 59 has to prove that there is no causal connection between his actions and the harm done. This reversal of the burden of proof will be applicable to GMO cases.
- 11 In general Norwegian tort law does not recognize potential or uncertain causation. To deem someone liable requires that it is proved beyond 50 % certainty that the alleged tortfeasor has caused the harm. The wording in *forurl.* represents, however, a rare modification in this respect. As cited in no. 9 above, the rule states that an actor that *may* have polluted has to prove his innocence. In practical life it may be very difficult to prove that one has not caused the damage, and this difficulty is particularly evident when it comes to GMO-infection. Because of this, the rule in *forurl.* § 59 cf. *genteknologil.* § 23 may be looked upon as a rule that states liability for potential causation.
- 12 By the wording „[d]en som er ansvarlig for virksomheten ...” („the one who is responsible for the activity”), the liability is channelled to the owner of the GM-crop or/and the person who runs the activity of farming. At this point *genteknologil.* § 23 (because of the link between the acts mentioned in no. 4 above) is likely to be supplemented by *forurl.* § 56 second sentence. *Forurl.* § 56 is a strict liability clause that applies to pollution damage. The second sentence of the paragraph states that the one who „in fact runs” („faktisk driver”) the polluting activity is liable.

3. Type of regime

(a) *If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?*

- 13 As mentioned in no. 1 the Norwegian solution with regard to GMO is not a fault-based regime.

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 14 The way that the liability clause is formulated there are no defences available to the actor.

(c) If it is no liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

- 15 No compensation mechanism is yet designed.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 16 There is no such differentiation within the current regulations.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 17 Within the Norwegian procedural system of civil litigation one is free to base a claim on any material legal basis one may choose. Hence one is entitled to claim compensation based on general tort law simultaneously. The judge, however, has the competence to decide which rules he or she will apply in the case at hand. In this respect the judge is likely to choose the special rule in *genteknologil* § 23 on account of the principle of *lex specialis*.

- 18 One is, however, barred from *subsequently* bringing a lawsuit on basis of general tort law rules due to the Norwegian rules on litigation, namely the rule of claim preclusion (litispence).² A claim based on general tort law will probably in the context of civil litigation be regarded as the same claim as a claim based on *genteknologil*. § 23, therefore the rules of claim preclusion (litispence) will apply.

4. Damage and remedies

- 19 By the word „skade”, which means „damage”, the provision refers to the general tort law concept of damage under Norwegian law. The scope of this concept is described in part II below. In the special liability clause in § 23 pure economic loss is not given any special treatment, and one therefore has to lean on the general regulation of such damage described in part II below.

² Cf. *Twistemålsloven* 13 August 1915 (The Norwegian Act on Litigation, *tvistel.*) § 163.

5. Compensation funds

- 20 Currently no compensation funds are planned.

6. Comparison to other specific liability or compensation regimes

- 21 The strict liability rule described above is quite comparable to other liability regimes under Norwegian law. Both product liability and environmental liability are based on rules of strict liability or close to strict liability.³ The strict liability rule in *genteknologil.* § 23 fits very well into the broader system of liability for acts that endanger the environment, cf. the strict liability rule in *forurl.* § 55.

II. General Liability or other Compensation Schemes

1. Introduction

- 22 The general liability rules would apply. The GMO-infection of the initially non-GMO crop would be regarded as damage to the crop. The compensation would reflect the loss of value stemming from the change from non-GMO crop to GMO crop.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 23 The ordinary criteria of *conditio sine qua non* supplemented with the qualification of a substantial cause would apply. Thus, Norway has, like many other countries, adopted a bifurcated approach to the question of causation. The first step is a logical one, usually depending on the „but for” test. In Norway one has traditionally built upon the theories of John Stuart Mill, which especially were introduced into Norwegian tort law by the influential writer Stang.⁴ In Norway this means that there is broad consensus that one should use the theory of equivalence as a starting point when analyzing the causal requirements.
- 24 The second criterion of qualification is a normative one, putting weight on how dominating the tortfeasor’s act is compared to other causal factors. One should note that the tortfeasor’s contribution to the damage does not have to be the overall dominating factor as compared to all causal factors. It is sufficient that the factor is „so substantial that one naturally could attach liability to the factor”, Rt. 1992, 64 ff., 70. This second criterion is not quite the same

3 Cf. Produktansvarsloven 23 December 1988 no. 104 (the Norwegian product liability act, pal.) § 2-1 and *forurl.* § 55.

4 *F. Stang*, *Erstatningsretten* (1919), 65-68.

as the adequacy test. Only when the two mentioned criteria are met, one moves on to the question of adequate causation.

(b) How is the burden of proof distributed?

- 25 At the outset the ordinary principle that the claimant must prove that he has been exposed to harm by the defendant, will apply. But according to Norwegian Supreme Court practice, the judge within certain limits has the competence to shift the burden of proof on a discretionary basis.⁵ The fact that 1) the neighbour uses GM crop and 2) that the claimant has got GM-infection in his crop *may* be sufficient for the judges to reverse the burden of proof so that the neighbouring GM crop holder must prove that the infection was *not* caused by him. But whether or not the judges will use their competence in this manner is not easy to tell in advance.

(c) How are problems of multiple causes handled by the general regime?

- 26 When it comes to *alternative* causes the traditional view has been that one can not state liability without sufficient proof that the defendant actually was the cause of the harm.⁶ A citizen can in other words not be deemed liable unless it is proved that it is more probable than not that he is the cause of the damage. This will in fact lead to non-liability where two alternative factors are both likely to have caused the harm. This question has traditionally been elaborated in the light of a text-book example: Two persons independently of one another pushes a rock from a cliff down to a deep valley. Later it is discovered that a grazing horse is killed by a rock, but it is not possible to establish which of the possible tortfeasors that in fact pushed the killing rock. F. Stang maintains that none of the possible tortfeasors can be liable in such a case.⁷ H. Hartmann holds on the other hand that both of them must be liable *in solidum*.⁸ Also N. Nygaard is sympathetic to this solution.⁹
- 27 In an article published in 2005, A. Stenvik, inspired by the solution PEPL art. 4:103, has challenged the traditional view. The author holds that Norway should embark on the solution suggested in PEPL 4:103; rebuttable solidary liability.¹⁰
- 28 Apart from this the special rule in the Norwegian act on pollution *forurl.* § 59 will apply, see no 9-10 above, where the rule also is cited.

5 Cf. N. Nygaard, *Skade og ansvar* (5th. ed. 2000) 338.

6 F. Stang *Skade voldt av flere* (1918) 61-66.

7 Stang (fn. 6) 67-68

8 H. Hartmann, *Bevismangel som ansvarsgrunn*, TFR 1950, 232-241, 239.

9 Nygaard (fn. 5), 341.

10 A. Stenvik, *Erstatningsrettens internasjonalisering* (The Internationalizing of Tort Law), *Tidsskrift for Erstatningsrett* (TfE) 2005, 33-61

- 29 As mentioned above, in general Norwegian tort law does not recognize potential or uncertain causation. To deem someone liable requires that it is proved beyond 50 % certainty that the alleged tortfeasor has caused the harm. As explained in no. 11 above, the wording in *forurl.* 59, however, represents a modification in this respect.
- 30 Where there is some kind of cooperation or common enterprise involved in the interaction between the polluters or other harming actors, they will quite readily be deemed as acting together with the consequence of joint and several liability. The more precise threshold of required cooperation is hard to describe in general terms. This is a rule based on very scarce court practice.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 31 Fault-based liability comprises parameters that very much resemble the Learned Hand formula. One has to evaluate the quality of the risk and compare it to the burdens of avoiding the risk. The burden of proof is governed by the same regime that is presented in no 28 above. If there are established statutory rules for a certain area of life, this will in general make a great difference. The interpretation of the rule of culpa under Norwegian tort law has traditionally to a large extent leaned on statutory or administrative provisions that states how the defendant should act or perform.¹¹ Hence one would have put heavy weight on statutory rules defining the required conduct for GMO agriculture.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

- 32 The Norwegian general rule on strict liability applies when one can establish that there has been a „continuous”, „typical” and „extraordinary” risk that has resulted in the harm. This rule is developed as a consequence of the industrial revolution in the second half of the 19th century. It was initially related to dangerous factories but has in time been expanded to a great variety of risk sources such as cars, elevators and defective drugs. This basis of liability may very well come into play in connection with the GMO-damage. This is, however, not very likely as long there is a special liability clause in *genteknol.* § 23.

¹¹ *Nygaard* (fn.5) 199 ff.

- 33 Hence it is far more likely that the statutory basis of strict liability in *genteknologi*. § 23 and perhaps also *forurl*. § 55 will apply. The requisites of these rules are simply that the activity of GMO farming has caused the damage.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 34 In Norway one has enacted a special act on the relationship between neighbours, *granneloven* (the Neighbour Act, *grannel*).¹² This act comprises liability rules for emissions transferred from one property to another and other forms of impact the activity on one property of land has on neighbouring land. The main requisite is formulated quite broadly, cf. *grannel*. § 2:

„No one must have, do or initiate something that unreasonably or unnecessarily constitutes harm or nuisance to neighbouring land.”

- 35 Based on practice and general theoretical opinion this rule will probably apply to cases of the kind covered by this study.

4. Damage and remedies

(a) How is damage defined and measured?

- 36 Damage is in general divided into three categories; damage to persons, things and pure economic loss.¹³ The GMO infection on the non-GM crops may very well be looked upon as a kind of damage to the non-GM crop. Any alteration of a thing in a negative direction in terms of economic value will qualify as damage. As long as the crop is produced for sale, one will presumably look to the market value of the damaged goods.¹⁴ The measuring of the damage (the assessment) will simply be done by subtracting the value of the GMO-infected crop from the stipulated value of a non-GM crop. When applying this approach there will not really be a question of pure economic loss.
- 37 Pure economic loss is in general considered to be a head of damage that has a particularly weak standing.¹⁵ This kind of damage will not always be regarded as relevant to tort law compensation. The question of compensation will depend on the concrete merits of the case. There are, however, many examples within Norwegian tort law practice where claims of pure economic loss have

¹² Granneloven av 4. desember 1961.

¹³ Cf. Skadeserstatningsloven no. 26/1969 § 4-1 and § 3-1.

¹⁴ *Nygaard* (fn. 5), 76.

¹⁵ *P. Lødrup*, *Lærebok i erstatningsrett* 5. ed. (2005), 53, *V. Hagstrøm* (in co-operation with *M. Aarbakke*), *Obligasjonsrett* (2003), 450, see also the Supreme Court statement in Rt. 1991, 1335, 1342.

succeed. One example is the case referred in Rt. 1955,1132. A commissioner for „Norsk Tipping”(the national company for betting on soccer games) failed to register a customer’s betting, with the consequence that the customer did not win in spite of the fact that he had an all-correct forecast. The commissioner had to pay damages equivalent to the award the customer would have won had the commissioner registered the claimant’s forecast.

- 38 One might say that the difference between pure economic loss and other kinds of damage is that pure economic loss has to pass a normative qualification which is unnecessary when it comes to damage to things or personal injuries.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 39 This is regarded as pure economic loss. The question will be whether or not this kind of negative effect is within the scope of the requisite of „skade” damage according to *genteknologil.* § 23. The methodical approach is in this respect to interpret the special rule in § 23 in the light of the general concept of damage within Norwegian tort law.

- 40 In this case the damage is pure economic loss due to possible customers’ unfounded fear of GMO existence. As mentioned above, pure economic loss in general has a weak standing. However, if the mentioned wrong belief was caused by a malicious campaign from a tortfeasor, the loss might have been compensated. Therefore it is not the nature of the loss in itself that makes it difficult to recognize this kind of claims. The question would rather be whether one would interpret the strict liability rule so widely that it even comprises negative economic effects based on wrong belief. I very much doubt that a judge would have interpreted the scope of the special strict liability rule that widely. But this reductive interpretation of the liability clause would presumably have taken place by applying an adequacy test. The reasoning would then be that there is no adequate causation between the defendants holding of a GM crop and the loss that stems from unfounded fear of GMO infections on the crop for sale.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 41 In general one would not regard the loss of the not contaminated farmers as compensable. As suggested above, under the Norwegian tort law regime there is some room for normative qualifications under the requisite of adequacy. One would probably not regard a causal connection that comprises unfounded fear as adequate.

(d) Which are the criteria for determining the amount of compensation in general?

- 42 The measuring of the damage (the assessment) will probably be guided by „the principle of difference”: Through compensation the claimant shall obtain the same economical situation as he found himself in before the damage occurred. The application of this principle will simply be done by subtracting the value of the GMO-infected crop from the stipulated value of a non-GM crop. Under Norwegian law there is a long tradition for leaving a margin of discretion to the judges when it comes to the assessment of damages. Hence the judges will have the possibility to stipulate a reasonable award base on rough presuppositions regarding amounts of crop and its value.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 43 On principle there is no financial limit to liability. Once liability is established the general reduction clause in *Skadeserstatningsloven* (Compensation for damage act, *skl.*) § 5-2 may, however, come into play. If the liability is „unreasonably burdening” to the defendant, the award may be reduced to a manageable level. The question of if and how much the award should be reduced depend on the defendant’s financial position, the gravity of the tortious act and „other circumstances”.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 44 There is currently no general duty to obtain liability insurance.

(g) Which procedures apply to obtain redress in such cases?

- 45 If there is liability insurance (bought on a voluntary basis), the claimant has the right to claim compensation from (or sue) the liability insurer directly, cf. *Forsikringsavtaleloven* 16 June 1989 no. 69 (Insurance contract act) § 7-6.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

- 46 No general compensation schemes are applicable in such cases.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 47 In *genteknologil*. § 22 there is legal basis for the public entities to claim a fee from a crop-owner where the public entity has taken measures in order to supervise that the crop-owner complies with regulations or administrative orders. The statutory provision delegates to governmental ministries the authority to make administrative provisions on the mentioned fees. However, no such provisions are yet in force.
- 48 Apart from the mentioned *genteknologil*. § 22 there are currently no specific rules regarding costs associated with sampling and testing of GMO presence. Neither are there any rules on covering the costs of general monitoring.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 49 To my knowledge there are no industry-based rules. The general tort law rules will, however, apply. It is in tort law practice common to regard sampling and testing costs related to confirm that damage has occurred as relevant expenses within the concept of damage.¹⁶

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 50 The general rules are only applicable where the tests are positive so that occurrence of damage is confirmed. Damage is only recoverable provided that the defendant is deemed liable. Hence the general rule will not cover expenses related to the mere monitoring of the crop.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 51 There are no special jurisdictional or conflict of law rules in force or planned, except for a general rule concerning damage covered by *forurl.*, namely *fo-*

¹⁶ *Nygaard* (fn. 5), 78.

rurl. § 54. This provision states that *forurl.* applies to pollution damage that occurs on Norwegian territory, *forurl.* § 54 para. 1 lit. a. Moreover, it may apply to pollution damage outside Norway provided that the activity that causes the damages has taken place in Norway. The claimant is entitled to claim that the question of compensation shall be decided in the country where the polluting activity took place, cf. *forurl.* § 54, para. 4. Because of the link between *genteknol.* § 23 and *forurl.* mentioned in no. 3, the said provisions will apply to GMO-cases.

- 52 In addition there is relevant regulation within the Nordic Convention on the Protection of the Environment.¹⁷ This convention has been incorporated in Norwegian law by *Lov om gjennomføring i norsk rett av miljøvernkonvensjon mellom Norge, Danmark, Finland og Sverige* (the Act on Implementation of the Nordic Convention between Norway, Denmark, Sweden and Finland, signed 19. February 1974), an act of 9 April 1976 no. 21. Article 3 in said convention reads that a claimant that has been exposed to pollution damage in his own country has the right to sue or apply administrative remedies against the tortfeasor in the country where the polluting activity took place. The claimant is entitled to a compensation regime that is as much to his advantage as the compensation regime in the country where the polluting activity took place.
- 53 Except for the general principle of *lex loci delicti* there is no other specific provisions designed for cross-border cases. *Lex loci delicti* provides, however, obviously not any good answers for cross border cases because it is doubtful whether *lex loci delicti* is the place where the damaging activity took place (*lex loci actus*) or where the damage occurred (*lex loci iniuriae*).

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 54 When it comes to rules of jurisdiction, *tvistel.* § 29 reads that a lawsuit can be filed where the direct effect of the damaging activity has occurred. This would lead to the solution that GMO contamination that stems from other countries may be the cause of a lawsuit for Norwegian courts. The mentioned rule is however modified by case law, which has constituted a principle that says that the damaging act must have a certain degree of connection to Norway. This principle was particularly important in the case referred in Rt. 1998, 1647. This case concerned an airplane accident in Svalbard (Spitzbergen). The accident had no connection to Norway other than the fact that the plane fell down on Norwegian territory. The passengers were foreigners and so was the com-

¹⁷ Convention 19 February 1974, Miljøvernkonvensjon mellom Danmark, Finland, Norge og Sverige av 19. februar 1974.

pany who owned the aircraft. Hence the claimants were not allowed to file a lawsuit in Norway.¹⁸

- 55 Norwegian international private law has with regard to the choice of law been open to different solutions in cross border cases.¹⁹ Hence it is uncertain whether *lex loci actus* or *lex loci iniuriae* would prevail. The general opinion among theorists within Norwegian international private law, however, seems, to be that the rules of country where the damage occurs (*lex loci iniuriae*) apply.²⁰
- 56 On a practical level the claimant most often will have the opportunity of *lex loci actus* according to the Nordic Convention on the Protection of the Environment mentioned in no. 52 above. This goes for cross border cases involving Sweden, Finland and (less practical) Denmark. Norway has, however, also a borderline against Russia, and for cross border cases in this area the convention will not apply. Consequently cases involving Russia probably will be solved by applying the *lex loci iniuriae*- principle, cf. no. 55 above.²¹

18 See *B. Konow*, Erstatningsverneting i saker utenfor kontraktsforhold, in *G.Holgersen/K. Krüger/K. Lilleholt* (eds.), *Nybrott og odling, Festskrift for Nils Nygaard* (2002), 181 ff, 184-186.

19 *H. Thue*, Internasjonal obligasjonsrett, Erstatning utenfor kontraktsforhold, *Institutt for privatretts stensilserie* (1986) nr. 111, 25 f..

20 *H. Thue* (fn. 19), 28 f..

21 The same goes for Iceland, who is not a party to the mentioned Nordic convention. Cross border cases involving Iceland are, however, not practical.

20. POLAND

Ewa Bagińska

I. Special Liability or Compensation Regimes

1. Introduction

- 1 In the Law of 22 June 2001 on Genetically Modified Organisms (Journal of Laws 2001, no 76, item 811, with amendments) there is a special provision of art. 57 (Chapter 7 of the Law) addressing civil liability of GMO users.
- 2 According to art. 57 section 1 a GMO „user” is liable according to civil law for damage to person, damage to property and damage to the environment caused by the carrying out of a contained use of GMOs or of a deliberate release of GMOs into the environment, including the placing of GMOs on the market.
- 3 The liability is strict, i.e. it is based on the principle of risk. There are three exonerations from this liability: 1) *force majeure* (*vis maior*), 2) the exclusive fault of the injured, 3) the exclusive fault of a third person for whom the GMO user is not liable. The fact that the activity that caused damage was carried out on the basis and within the scope of an administrative decision does not exempt the user from the liability envisaged in art. 57 section 1 of the Law (art. 57 section 3 of the Law).
- 4 In the case of environmental damage the claim for compensation may be brought by the State Treasury, a local authority or an ecological organization (art. 57 section 2 of the Law).
- 5 The same rules of liability apply accordingly to the transit of GMO products through the territory of Poland. The liability is imposed on the person obliged to obtain a licence according to art. 51 of the Law.
- 6 The liability is linked with all activities involving production or release of GMOs. Thus, art. 57 section 1 does not exclude any risks posed by the GMOs that have been released into the environment. At present, it also covers the risks described in the introduction to this questionnaire.
- 7 There is a draft bill aiming to replace the Act of 2001 with a new *law on GMOs*. It slightly changes the provisions on liability for damage, although it does not change the principle of risk as the basis of the claim. According to art. 189 of the draft a „user” (any person who undertakes any GMO activity

regulated by the law, also a farmer) is liable according to civil law for damage to person, damage to property and damage to the environment caused by a contained use, a deliberate release or placing on the market of a GMO as a product or in a product and by a cultivation of GMO crops, unless the damage is attributed to *force majeure (vis maior)*, the exclusive fault of the injured or the exclusive fault of a third person for whom the user is not liable.

- 8 The draft act provides that in the case of damage to the environment the claim for compensation may be brought by the State Treasury or a local authority. However, in this case any awarded compensation is to be transferred for the benefit of the National Fund of Environmental Protection and Water Management.
- 9 In comparison to the current law the bill explicitly covers the risks described in the introduction to this questionnaire, hence damage stemming from the cultivation of GMO crops.
- 10 In addition, art. 189 section 3 of the draft act introduces joint and several liability of users whose conduct/activity caused the damage.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 11 There are no special rules in the Law on GMOs that would change the applicability of the general test of causation.
- 12 In the field of liability for damage Polish law generally accepts the theory of adequate causal link. Art. 361 § 1 civil code provides that a person obliged to pay damages is liable only for the normal consequences of the action or omission from which the damage resulted. In some cases proof of high probability of the causal connection between the fact and the inflicted loss will suffice.
- 13 The said provision does not introduce a (legal) causal link that would be different from that existing in reality. The law, however, links liability only with the ordinary consequences of phenomena that make up its basis. First of all, there must be a *conditio sine qua non* relation between the cause and its result. However, the tortfeasor is not responsible for all consequences of his action (inaction), but only for those which can be assessed as ordinary (normal). The courts thus examine whether a given fact, which is presented as the alleged cause of the damage, is its *conditio sine qua non*. If the answer is affirmative, the courts will then consider whether the given result is a normal consequence of the phenomenon that led to the damage.

- 14 It is believed that adequate causation may be both direct and indirect. Thus, there is a causal link between damage and an event if the event indirectly created the favourable conditions or facilitated another event or a chain of events, the last of which became the direct cause of the damage. Thus, in the case of indirect causation there is a causal dependency between the parts of the multi-element chain and each part separately is subject to the causality test¹.
- 15 The criterion of adequacy (normality) is subject to different interpretations. According to the view prevailing in the doctrine and case law a „normal consequence” of a fact means one which typically occurs in the regular course of events; it is not required that it would always happen. The Supreme Court has explained the category of „normal consequences” in several judgments, using the objective criteria that flow from life experience and science². With some exceptional cases the case law rejects the subjective factor of foreseeability of consequences, because predictability is considered a category of fault and not of causality.
- 16 In the cases covered by this study, due to the lack of experience in cultivation of GMO crops in Poland, the courts will have to, at least initially, rely on scientific data. Geographical conditions, such as the distance between the crops as well as the type of seed are examples of objective criteria that should also be taken into account when establishing adequate causation.

(b) How is the burden of proof distributed? Is there a reversed burden of proof, in the sense that the damage is presumed to be the consequence of the presence of a certain GM crop? How are the different sources of adventitious presence of GMOs (e.g. seed impurities, out-crossing with neighbouring crops, volunteers, transport, storage) being taken into account, if at all?

- 17 The general provisions of civil law on the burden of proof apply. The rule of art. 6 civil code imposes the burden of proving causation on the injured person („The burden of proof relating to a fact rests on the person who attributes legal consequences to that fact”.)
- 18 There is no formal reversal of the burden of proof in the discussed regime. There are, however, some special rules which relate to the means of proving causation. According to art. 57 section 5 of the GMO Law anyone who is entitled to claim damages based on this regime and has filed a court action may demand that the court oblige the person whose activity is the source of the claim to discharge information necessary to establish the scope of this per-

1 The Supreme Court [SN] 10 Dec. 1952, C 584/52, *Panstwo I Prawo* 1953/8-9, 366, SN 21 June 1960, 1 CR 592/59, *Decisions of the Supreme Court* [OSN] 1962/III, at 84.

2 SN 2 June 1956, 3 CR 515/56, OSN1957/1, at 24, SN 7 June 2001, III CKN 1536/00, *LEX DATABASE* 52595, SN 14 March 2002, IV CKN 826/00, *LEX DATABASE* 74400.

son's liability. The cost of the preparation of such information is born by the defendant unless the action has shown to be frivolous. This rule is deleted in the planned law on GMOs.

- 19 In the studied cases presumptions of facts may be used in order to establish the causal link between the consequences of the presence of GMOs in non-GMO crops. We may also find some further directions in the case law. The Supreme Court³ held that the causal link between a certain disease of the victim and the operation of an industrial enterprise which emits harmful substances (in this case liability is based on risk) should be considered to be established as soon as it is proven that the victim was *exposed* to the damaging pollution released by such enterprise if his disease may be a normal consequence thereof. The Court held that the law imposes the obligation to measure the density of polluting gases on the enterprises which emit such gases, because such measurements are complicated, costly and time-consuming. Thus, the defendant enterprise should bear the burden of proving that the harmful dust it had discharged had no impact on the damage suffered by the plaintiff.
- 20 The user is strictly liable, regardless of whether he met his statutory duties linked with transport, storage or out-crossing with neighbouring crops.

(c) How are problems of multiple causes handled by the regime? Are there any specific rules for recourse between those liable?
- 21 The Law channels the liability to the user of GMOs.
- 22 There are no special rules on alternative, potential or uncertain causation in the Law. General rule of art. 361 § 1 civil code (hence – the adequate causation test) will apply as the civil code contains no special rules on alternative, potential or uncertain causation, either.
- 23 There are no special rules in the Law on GMOs that would change the applicability of the general rules of civil law governing joint and several liability of multiple tortfeasors. No collective liability is foreseen in the regime, and nor is there any rule on recourse between the persons liable.
- 24 However, art. 189 section 3 of the draft act introduces joint and several liability of users whose conduct/activity caused the damage. No further conditions – other than causation – apply. No recourse rules are provided, either. Thus, the general rules on joint and several obligations and of joint and several liability *ex delicto* will apply accordingly.
- 25 On the general regime of joint and several liability see below 20.II.2(c).

3 SN 6 Oct. 1976, IV CR 380/76, OSN 1977/5-6, at 93.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 26 The liability is strict, i.e. it is based on the principle of risk. There are three exonerations from this liability: 1) *force majeure* (*vis maior*), 2) the exclusive fault of the injured, 3) the exclusive fault of a third person for whom the GMO user is not liable.

(c) If it is not a liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 27 Under both current law *and draft law* the same criteria apply to both crop production and seed production.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 28 The liability regime is placed outside the civil code, but there is no obstacle to basing the claims on general tort law. However, the Law on GMOs provides for a more favourable basis of the liability than the general fault liability (art. 415 civil code).

- 29 Currently, the regime overlaps with special rules of liability for environmental damage contained in the Environmental Protection Law of 2001 (see below at 6 in more details). However, a draft act on prevention and remedying of environmental damage, implementing Directive 2004/35 of 21 April 2004, aims to create coherence between the two systems. This new act would add to the Law on GMOs, a referral to the provisions of the draft law with respect to the prevention and reparation of damage to the environment caused by a contained use of GMOs or by a deliberate release of GMOs into the environment.

4. Damage and remedies

(a) *How is damage defined and measured under the system(s) you described?*

- 30 There is no definition of damage in the Law on GMOs, hence the general rules of civil law apply. In particular, art. 57 of the Law refers to the liability „as provided by civil law”.
- 31 There is no legal definition of damage in the civil code. Traditionally, it is considered as every wrong upon an interest protected by law, be it property or personality interests. The notion of property damage is determined in the case law. Both case law and doctrine accept the theory of difference. Hence, the damage to property makes up the difference between the present property standing of the injured party and the standing which would have existed if the event causing the damage had not occurred.
- 32 Thus, all kinds of damage: to person and to property, pecuniary and non-pecuniary must be compensated. Damages comprise both losses – *damnum emergens* and lost profits – *lucrum cessans*. Full compensation is the principle. This also means that the amount of damages may not exceed the scope of damage or enrich the injured party. The adequate causation test (art. 361 § 1 civil code) relates to both types of damage. When dealing with claims for the loss of earnings or other material benefits Polish courts qualify them as belonging to the category of *lucrum cessans*. Two elements must be compared: a hypothetical situation in which the injured would have got a certain material profit with an actual situation where gaining the profit is unfeasible. Gaining *lucrum cessans* (profit) must be objectively feasible and real. It should be established that the injured lost a profit which was to be obtained with certainty or at least with a high degree of probability.
- 33 In Polish law *pure economic loss* is not compensated, unless it falls within the category of lost profits. The proof of high probability of lost income is required, as well as a normal causal relation between the tort and the scope of the economic loss claimed by the plaintiff.
- 34 In the case of *personal injury* the redress of damage covers pecuniary and non-pecuniary damage. The first one includes all resulting costs, like medical expenses, or if the victim lost his ability to work, an appropriate annuity, even a temporary one if at the time of the delivery of the judgment the damage cannot be accurately assessed. Moreover, persons related to the deceased, who are indirectly injured by his death may demand an annuity or a single-payment indemnity (art. 446 § 2 i § 3 c.c.). Their claims are independent of any rights of the directly injured and of his received compensation of pecuniary and non-pecuniary loss (art. 444 and 445 c.c.).

- 35 The principle of *compensatio lucri cum damno* is applied in a traditional way, i.e. the deduction may occur only with respect to the gains flowing from the same event. Moreover, gains obtained from the tortfeasor are to be taken into account when determining the amount of damages. In several decisions the Supreme Court has related to collateral sources such as the relation between damages sought from the tortfeasor and insurance benefits.
- 36 With respect to the notion „*damage to the environment*”, account should be taken of the provisions of Environmental Protection Law. Although the latter does not define „*damage to the environment*”, the general doctrinal view is rather coherent with the draft law on prevention and reparation of environmental damage, implementing Directive 2004/35 of 21 April 2004 (where such a definition exist). The reparation of damage to the environment is regulated in the environmental law. About the remedies and scope of damages – see section 6 below. Damages will in general comprise the costs of prevention and restitution.
- (b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?*
- 37 Lacking any special rules, the question should be answered according to the general civil liability rules.
- 38 In Polish law the general criterion in assessing damages is an adequate causal relation between a tort and damage. Art. 361 § 2 civil code stipulates that within the limits of a normal causal link, in the absence of contrary provisions of the contract or law, redressing of the damage includes losses which the injured incurred and profits which he could have gained if the damage had not occurred. This is particularly important in determining damages in the case of indirect causation.
- 39 Hence, proof of actual damage or of a high probability of the loss of profits resulting therefrom is required. Usually, the loss of expected profits is more difficult to evaluate because here a hypothetical situation must be taken into consideration. The plaintiff must show that the loss of profits has been actually brought about. Subjective expectations and hopes of the plaintiff will not meet with this requirement.
- 40 Whether pure fear of admixture or only actual admixture and the loss of a farmer meet the adequate causation test is for the courts to decide.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 41 There is no special provision in the regime of liability for GMOs regarding this issue.
- 42 In general, it is accepted that compensable is the damage inflicted by the direct victim. By way of exception indirect victims in personal injury cases are entitled to their own claims for compensation. In cases of economic damage, only those persons towards whom the conduct of the tortfeasor was directed are considered the injured persons. In other words, the conduct of the tortfeasor must violate someone's subjective right.
- 43 The subjective right doctrine does not operate in the case of damage to the environment, since it is not yet accepted whether there is a subjective right to environment. Hence the environment is protected as a common good. For what damage is compensable in this case, one should look to the environmental law and the draft law on prevention and reparation of damage to natural environment, implementing Directive 2004/35.
- 44 *Prejudice eventuel* (loss of chance) is not compensable in the case of property damage and is compensable in the case of damage to person, provided the probability of the loss is not negligible and may be established.
- 45 All the farmers in a given region have a clear pecuniary interest in the commercial value of their crops. They suffer loss if the price of their crops has dropped because of the fear of consumers relating to the spread of GMOs in the whole region. The loss might also stem from the test undertaken to reaffirm that the crops in question have not been contaminated. Here again, adequate causation plays a role in the determination of damages.

(d) What are the criteria for determining the amount of compensation?

- 46 No specific criteria apply to the determining of the farmers' damages.
- 47 General rule codified in Art. 363 § 2 Civil Code provides as follows: „If the redress of damage is to be in money, the amount of the indemnity shall be fixed in accordance with the prices on the day on which the indemnity is fixed, unless extraordinary circumstances require that prices existing at a different moment be taken as the basis.” Hence, damages are to be determined as of the assessment date, which is strictly speaking the date of judgment. By way of exception a different date is taken as a basis. This rule is intended to give the injured party full compensation in situations where his injury becomes worse as a result of the passage of time during the period prior to judgment. As the Polish Supreme Court wrote in its judgment of 13 Sept. 1989 (III PZP 44/89, OSNC 9/1990, item 109): „The assessment of damages

according to the prices existing on the date of adjudication has great importance in a situation where the change of prices occurred between the day of the infliction of the damage and the issuing of the award ... Taking into account prices other than those existing on the date of adjudication happens only in exceptional cases and provided that it is justified by extraordinary circumstances.”

- 48 The „extraordinary circumstances” that are required to depart from the normal rule are those where using the date of adjudication would not result in full compensation to the injured party, or where the injured party would receive an unjust enrichment. An example of the type of „extraordinary circumstances” that would justify departure from the ordinary rule would be where damages are claimed for loss of crops in a particular year, which are normally sold after harvest in a ready and available market for a price that is known and accepted; in such a case, the date of expected sale is used, rather than the date of adjudication, because in such circumstances it is clear that the plaintiff would not have remained in possession of the crops to and until the date of adjudication but would have sold them for a verifiable price⁴.
- 49 In my opinion only the depreciation of the non-GMO product would be compensated (if the product is marketed and sold). The court will base its judgment on objective criteria (provided most probably in an expert opinion). Any indirect costs, such as increased overhead costs due to the need to find a new market for products, will be compensated as long as they remain in an adequate causal relation.
- 50 When awarding damages for harm arising from a tort, a court has freedom to determine the amount of damages. By virtue of art. 322 civil procedure code „If in the case of claim for damages [...] a court shall deem that it is not possible or extremely difficult to prove accurately the amount of the claim, the court may adjudicate a relevant amount of money in accordance with its evaluation, based on the consideration of all circumstances of the case.”

(e) Is there a financial limit to liability?

- 51 There is no financial limit to the liability.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 52 According to art. 25 – 30 and 36 of the Law on GMOs a decision allowing for the release of GMOs may establish a security to cover claims arising from po-

⁴ SN 24 Jan. 1983, OSN 1983, at 123.

tential losses, in particular in the case where a significant public interest related to the protection of health or environment, and especially to the risk where deterioration of the environment calls for such security. The form and scope of such security is determined by the licensing organ in the decision. The security may be provided in the form of a deposit on a special banking account set up by the licensing organ, a bank guarantee or insurance policy.

- 53 No specific criteria are prescribed by the law with respect to the scope of the security in the relation to the particular risk of cultivation of GMOs. Hence, the minister for the environment enjoys a wide margin of discretion.

(g) Which procedures apply to obtain redress?

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 54 Generally, in order to obtain redress for damage to person or property a regular lawsuit must be filed in the court of common jurisdiction.
- 55 A possibility to obtain injunctive relief is governed by the provisions of the civil procedure code.
- 56 There is, however, a specific administrative remedy provided for in the Law on GMOs. The above mentioned (point (f)) bank guarantee or insurance policy should contain a clause to the effect that in the case of a negative outcome in the environment caused by the non-fulfilment of duties imposed in the licence for an GMO activity, the bank or insurer will cover the execution of the obligations for the benefit of the licensing organ. The minister for the environment may decide to use the necessary part of the security to cover the expenses of eliminating the negative effects in the environment caused through the licensed activity in the case where such effects have not been eliminated in the prescribed time. The said rules presuppose that the security is used after the admixture has happened.
- 57 According to art. 28 of the law on GMOs the minister for the environment revokes the security if the licence expires or is withdrawn and the negative effects in the environment caused through the licensed activity have been eliminated.
- 58 The above procedure is also used in the case of insolvency or liquidation of a GMO user.
- 59 The draft law on GMOs does not provide for a specific security in the case of cultivation of GMO crops.

- 60 According to the draft law a regional inspector for environmental protection may impose certain duties and orders on the user who cultivates GMOs in violation of the law. In particular, the inspector may order the user, at his expense, to employ certain field activities, to destroy the crops, to undertake constant monitoring of crops in order to discover the presence of GMOs among the non-GMOs crops and to inform the inspector of such presence. The inspector may determine that his decision is immediately enforceable. Considering a possible reduction of the chance of spreading of GMOs onto non-GMOs crops, he may also issue a cease and desist order regarding the cultivation of certain crops or seeds on a given territory.

5. Compensation funds

- 61 –

6. Comparison to other specific liability or compensation regimes

- 62 Beside the Law on GMOs, the channelling of liability is to be found in Polish atomic law. According to Title 12 (art. 100 – 108) Polish Atomic Law, Act of 29 November 2000 (Dz. U. 2001, no. 2 at 18 with amendments) a nuclear operator (e.g. of nuclear reactor) is exclusively liable for nuclear damage caused by a nuclear accident within a nuclear device or caused in connection with a nuclear device, unless the damage resulted directly from acts of war (art. 101 subs. 1). During the transportation of a nuclear material, the liability is borne by the operator who dispatched the material, unless the contract with the consignee stipulates otherwise (art. 101 subs. 2). This liability is almost absolute. Therefore, a nuclear operator must provide compulsory liability insurance. The financial limit to this liability is SDR 150 million. If claims exceed the limit, a special fund must be created. The establishment and distribution of the fund is carried out pursuant to the rules of the Maritime Code relating to the limitation of liability for maritime claims. In addition, the State covers the compensation for damage to persons above the sum guaranteed in the insurance policy.
- 63 Environmental Protection Law (2001), in art. 322 – 328, provides for special rules of liability for environmental damage. The rules in the civil code apply unless the statute stipulates otherwise. With the exception of the sea, the environment (air, water, soil, forest) is protected by general tort provisions of art. 435 civil code and art. 415 civil code. According to art. 324 environmental protection law, if the damage is caused by an enterprise operating at an aggravated or major risk, art. 435 civil code (i.e. strict liability) is applicable even if the enterprise is run without the use of natural forces. The fact that the detrimental to the environment operation of an enterprise has its basis in an administrative decision does not constitute a defence to the liability for damage.

- 64 Art. 323 Environmental Protection Law provides that anyone who is exposed to risk of damage or who incurred damage through another's illegal influence on the environment may demand from the person liable that he restores the lawful state and takes preventive measures, such as through installing safety appliance or machines. Where the preventive action is impossible or unreasonably difficult, the claimant may demand that the actor abstains from the infringement. The State Treasury, a local government or an environmental organization has legal standing if an infringement or exposure to damage relates to the environment as a common value (art. 323 sec. 2). The plaintiff has a right to ask the court to oblige the defendant to supply all the information necessary to establish the scope of his liability. The person who repaired the damage has a right of indemnity towards the actor who caused it, however it is limited to the reasonable expenses of the restoration of the previous state (art. 326).
- 65 With regard to products liability, the Polish system is based on the European Directive 374/85, thus providing for strict liability of the producer and importer.
- 66 Hence, the strict liability of a GMO user fits into a broader system where liability attaches to objects and activities that create certain risk. The following factors are considered to justify strict liability: danger created by an activity (activities of an enterprise set into motion by natural forces, driving a car), benefits coming from such activity (*cuius commodum, eius damnum*), the need to protect victims (particularly in the field of products liability). The Polish Civil Code and other statutory provisions turn away from the criterion of a formal title of the person liable (such as ownership) and give a decisive value to the actual control (usually by a possessor) over the risk.
- 67 The channelling of liability to one person, who acts in accordance with terms set in a licence would call for the establishment of a fast and efficient system of compensation, for example a fund or a (compulsory) civil liability insurance, which would help to overcome causation problems. Account should be taken, however, of the fact that that possible economic damage to non-GMOs farmers may not be compared with a possible scope of nuclear damage or maritime damage.

II. General Liability or other Compensation Schemes

1. Introduction

- 68 The general clause of liability for one's own act is expressed in Art. 415 civil code. It provides that „whoever by his fault caused a damage to another person shall be obliged to redress it”. The duty established under Art. 415 is a general duty to refrain from injuring other persons. While liability under that rule remains subject to the principle of adequate causation, there is no re-

quirement that the tortfeasor and the injured party have any specific pre-existing relationship, such as a contractual relationship.

- 69 In the regime of liability *ex delicto* the legal norms introducing strict liability have priority over fault rules, so there is no problem of concurrence.
- 70 The possible general basis of strict liability (art. 435 civil code) will find little application to the cases of damage caused by the GMO presence in non-GMO crops (see below Section 3 (b)).
- 71 Liability based on equity will not apply to the economic damage of non-GMO producers.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

(b) How is the burden of proof distributed?

See 20.I.2.

- 72 In the general regime the information relating to the scope of the defendant's liability (and at his cost) may not be demanded by the plaintiff in the court proceedings. The same is true as concerns the drafted provision on liability in the planned GMO law.

(c) How are problems of multiple causes handled by the general regime?

- 73 Art. 441 § 1 civil code provides: „If several persons are liable for damage caused by a tort, their liability is joint and several”.
- 74 According to case law in a situation where two different persons could be strictly liable for the plaintiff's damage and there is no base to determine its actual source, both defendants are jointly and severally liable (art. 441 § 1 civil code) since neither is able to establish any of the available defences to strict liability (art. 434 and 435 civil code).
- 75 Where multiple parties are in fact responsible for the damage, it does not matter whether the actions of one party were direct or indirect or whether one party is more responsible or blameworthy than the other. Rather, it is considered a principle under Polish law that in cases where more than one person has caused the damage, the degree of liability of individual persons is not to be identified or differentiated.

- 76 In Polish civil law there are no special rules concerning alternative, potential or uncertain causation. These problems are solved through the application of the general principle of adequate causation (explained above). Polish positive law does not recognize the so-called alternate concurrent causality. It is disputable in the legal writing whether in such a situation the liability of concurrent actors should be joint and several⁵.
- 77 In the case law it is established that the fact that the damage could arise only in the case of aggravation of harmful substances emitted by a different industrial enterprise does not defeat strict liability of the only defendant enterprise (art. 435 civil code). The liability arises whenever an undertaking should be aware of the fact that any additional source of harmful pollution worsens living conditions in a given area and as a result of the accumulation of different effluences it may cause certain harms, even though the emissions originating in that enterprise did not themselves exceed the environmental standards prescribed in the relevant legal provisions. A defendant enterprise is responsible for the whole damage, if it cannot provide any counter evidence supporting the conclusion that its activities did not cause the plaintiff's harm or caused only a small part of it.
- 78 The rule of joint and several liability is applied to a situation where the damage flowing from one event is increased by a consecutive cause that is adequately linked with the first one. Thus, all tortfeasors will be liable jointly and severally for the common inflicting of the damage. According to the Supreme Court⁶ „a joint infliction of damage is established when there are doubts as to who and in what extent contributed to the occurrence of the damage; it is a question of an objective joining of acts, regardless of the wrongdoers' subjective evaluation of their acts”.
- 79 The Polish Civil Code and case law do not provide for assessing the contribution of each of the tortfeasors in the inflicting of damage and it is of no relevance that one tortfeasor may have contributed more to the damage than the other. Such a fact may have significance only in the action for contribution claims (recourse) between the joint tortfeasors. Pursuant to Art. 441 § 2 civil code „If the damage resulted from an action or omission of several persons, the one who paid the damages may request a refund of an adequate share from the others according to the circumstances and particularly according to the fault of the given person and the degree to which he contributed to the infliction of the damage”.
- 80 Collective liability (through the contributions to special funds) is foreseen in the maritime law.

5 See W. Czachórski, (in:) System prawa cywilnego, t.III, cz. 1, Ossolineum, Wrocław Warszawa 1981, s. 264.

6 SN 17 Jan. 1950, Na C. 204/49, Państwo i Prawo 1950/ 11, p. 184.

3. Standard of liability

(a) In the case of fault-based liability, what are the parameters for determining fault and how is the burden of proof being distributed?

- 81 As used in Art. 415 civil code, the term „fault” refers to a deviation from the required standard of care. The standard of care is addressed in Art. 355, which states generally that a person is obligated to display the diligence generally required in relations of a given type (due diligence). However, the civil code also provides, in subsection 2 of Art. 355, that: „The due diligence of the debtor within the scope of his economic activity shall be assessed with the consideration of the professional nature of that activity”. This means that the duty of care required of a person engaged in a business is higher than the duty required of ordinary person outside the profession.
- 82 The standard against which a professional tortfeasor’s conduct is measured is objective, i.e., the comparison is with the conduct that would be expected of a professional of the given type, not with the conduct that would be expected of the individual tortfeasor himself. If there are clearly established statutory rules defining the required conduct for GMO agriculture, their violation proves negligence and is sufficient to establish liability (unless there some defences available).
- 83 The departure from the required standard of care does not need to be egregious in order for liability to be imposed. Any degree of departure – even the slightest fault – is enough for liability to be found. Under Art. 415 civil code, the fault may be intentional or unintentional (negligence), but must always be proven by the victim.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, etc.)?

- 84 Only art. 435 civil code might be taken into account – „Anyone who runs his own enterprise or business set into motion by natural forces (steam, gas, electricity, liquid fuel, etc.) is liable for any damage to persons and property to whomever caused through the operation of the enterprise or business, unless the damage occurred due to force majeure or exclusively through the fault of the injured party or of a third person for whom he is not responsible”. However, in the cases of GMOs cultivation it is not feasible that a GMO user runs a business set into motion by natural forces. Even though the statutes concerning strict liability are interpreted extensively by courts, such an interpretation is not necessary here, since the Law on GMOs provides for a strict liability of a GMO user.

- 85 Illegality of activities is not a premise for strict liability in tort. Courts interpret art. 435 civil code so as not to preclude strict liability for activities that cause pollution up to the level authorised in an administrative decision, if they exceed the average level stemming from the socio-economic purpose of the immovable and local conditions (art. 144 civil code – see below at (c)). The regional conditions are to be taken into account. However, as stated above, this legal basis is not very useful to the cases of the kind covered by this study.
- 86 Typically, there are three exonerations from strict liability: 1) force majeure (vis maior); 2) the exclusive fault of the person suffering damage, 3) the exclusive fault of a third person. Faulty conduct of the victim or of a third person must create a sole cause of the loss. It is not sufficient to point at an anonymous third person at fault.
- 87 Polish law contains no specific regulation on the assumption of risk. As a rule consent of the injured person will not always exclude strict liability.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 88 The rules applicable to cases of neighbourhood problems belong to property law. Pursuant to art. 144 civil code „An owner of immovable property should in exercise of his rights therein refrain from activities which might interfere with the use of neighbouring immovables and which are in excess of the average level stemming from its socio-economic purpose and local conditions”. An owner is entitled to restoration of the legal position and the cessation of infringement. „A neighbouring real immovable” is understood very broadly, thus including not only the adjoining real estate, but any real estate upon which the influence is exerted as a result of the activities taking place on a given immovable.
- 89 The above rules could find application to the cases covered by this study. Damage is not a pre-condition for these claims. If damage occurs, claims for compensation are to be based on tort law (art. 415 civil code, art. 435 civil code, special rules in the law on protection of the environment).

4. Damage and remedies

- 90 With regard to the general system of liability see the answers in 20.I.4.

(b) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 91 According to art. 440 CC, „in relations between natural persons, the extent of the duty to redress damage may be appropriately limited, if due to the finan-

cial situation of the injured person or the person liable for the damage the principles of social co-existence require such limitation". Polish courts rarely use this opportunity, mainly because it concerns physical persons only. Applying the provision by analogy to cases where one of the parties is a legal person has not been approved by courts. The judge may reduce the award taking into account all factors, including the economic position of the parties and the degree of the torfeasor's fault. The general condition for the reduction is a bad economic situation of the liable person (its assessment to be made on the basis both of the actual income, and of the earning capacity of the liable person). The fulfillment of this requirement alone is not sufficient, though, and must be defended by the principles of social co-existence (fairness). The provision of art. 440 CC permits only reduction of the amount of damages, and not a total release of the liable person from the legal obligation to repair damage.⁷ There are some limitations to the rule. It will not be applied in cases: i) of intentional fault, gross negligence or personal injury, since then the reduction would be contrary to the principle of fairness, ii) when the person liable has a liability insurance cover.⁸

(c) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

92 No such general duty exists. For atomic law – see 20.I.6.

(d) Which procedures apply to obtain redress in such cases?

93 In order to obtain redress a regular lawsuit must be filed in the court of common jurisdiction.

(e) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

94 There are no such compensation systems that may be applicable to the studied cases.

⁷ SN 4 Feb. 1970, OSN 1970, at 202.

⁸ SN 18 Dec. 1969, OSN 1969, at 207.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 95 Current law does not provide for specific and precise rules on allocating GMO testing, sampling and monitoring costs. In the case of justified suspicion of GMO presence in traditional products, as well as in the case of general monitoring, the GMO user is – under current law – obliged to reassess the risk of the use of GMOs. It may entail the costs of testing of GMO presence in other products. As a rule, such costs are born by the user. If the user does not fulfil this statutory obligation, his licence may be withdrawn.
- 96 The draft law provides for the obligation of a user to monitor the cultivation of GMO crops (art. 168 draft act). Any costs associated with it are born by the user.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 97 The reporter has no information of any industry-based rules.
- 98 Under general rules, the expenses associated with sampling and testing of GMO presence in other products which have been born by a non-GMO user should be considered as intended to prevent or reduce the scope of the damage and thus should be compensated on the basis of the theory of difference. Such costs should be recoverable even without the proof of actual GMO presence, as long as the non-user suffered actual financial loss, resulting for example from the decrease in the prices of products due to the contamination of some parts of the crops in the region.
- 99 However, if the sampling and testing is done in order to ensure that certain conditions for products produced under quality schemes (or laid down in contracts with retailers) are met, the expenses should not be treated as a compensable loss if no admixture is found, since they are within the business risk of the producer who is to show due diligence in performing his contractual duties.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

100 No specific rules on jurisdiction and conflict of laws are in force or planned.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

101 The general rules regarding the claims for compensation of damage caused through a tort refer to the place of the tort. Pursuant to art. 31 § 1 of the Act on international private law, the law applicable to a non-contractual obligation is the law of the state where the event creating the obligation occurred. This rule applies *inter alia* to an obligation to compensate damage arising out of a tort. Tort is understood very widely in Polish law, including the infliction of damage through a legal activity (when the liability is based on risk and there is no condition of wrongfulness).

21. PORTUGAL

Maria Manuel Veloso Gomes

I. Special Liability or Compensation Regimes

1. Introduction

- 1 The economic loss suffered by conventional farmers due to their crops being admixed with genetically modified crops raises, first of all, the problematic issue of the existence of damage. The admixture may result from the absence or inadequacy of segregation measures, therefore an unlawful act. Nevertheless, even in case of infringement of technical rules or rules of protection, remains the question whether the effect of the infringement can be qualified as a recoverable head of damage.
- 2 In the Portuguese tort law system, damage is a different requirement from unlawfulness and it has to be described in its actual features. The devaluation of the agricultural products of the affected crop, because they are compulsory labelled as GMO products¹, that is, products containing or consisting of GMO, might represent a harm, but cross-pollination as such cannot be „labelled ‘damage *per se*’. Still, noxious effects of contamination on health, ecosystems and property are likely to happen.
- 3 These effects might be direct effects, caused on human health and the environment as the result of the GMO itself and which do not occur through a causal chain of events or indirect events, occurring through a causal chain of events. Probably the most complex category (amongst those defined in Annex II Principles for the environmental risk assessment in the Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organism and repealing Council Directive 90/220/EEC and Law Decree 72/2003, 10 April 2003, the law of transposition²) is that of cumulative long-term effects (*efeitos cumulativos a longo prazo*). It refers to the accumulated effects of consents on human health and the environment, including *inter alia* flora and fauna, soil fertility, soil degradation of organic material, the feed³/food

1 There is a threshold of 0.9% below which the presence of GMO in food or feed does not require labelling (see Regulamentations 1829/2003 and 1830/2003).

2 Law Decree 72/2003, 10 April 2003, DR 85, Série-A 10 April 2003.

3 Law Decree 144/2005, 26 August, Diário da Republica (DR) 164 Série I-A, 26 August, (transposition of Directive 2004/17/CE of the Council (*Regula a produção, o controlo e*

chain⁴, biological diversity, animal health and resistance problems in relation to antibiotics”.

- 4 In fact, the latter situation (resistance problems in relation to antibiotics) involves additional costs for conventional farmers and might lead to the destruction of the crops (physical destruction) or to the impossibility to distribute seeds or final agricultural products, due to the kind of antibiotics used aiming to save the products.
- 5 In Portugal, there is no special liability regime for biotechnology claims due to cross-pollination. Nevertheless, it should be questioned if environmental protection rules or others can be invoked as far as economic damage of a person is concerned.
- 6 In *considerando* 16 the Directive 2001/18/EC⁵ states that „the provisions of this Directive should be without prejudice to national legislation in the field of environmental liability, while Community legislation in this field needs to be complemented by rules covering liability for different types of environmental damage in all areas of the European Union”.⁶ The most important statutes after 2001 are the already mentioned Law-Decree 72/2003 and Law-Decree 160/2005, 21 September 2005⁷, but they do not deal with GMO-liability cases.

a certificação de sementes de espécies agrícolas e de espécies hortícolas destinadas à comercialização).

- 4 Law Decree 154/2005, 6 September 2005, DR 171 Série-A 6 September 2005 (*actualiza o regime fitossanitário que cria e define as medidas de protecção fito sanitária destinadas a evitar a introdução e dispersão no território nacional e comunitário de organismos prejudiciais aos vegetais e produtos vegetais*): transposition of Directives 2002/89/CE, of Council 28 November, 2004/102/CE of Commission, 15 October, 2004/103/CE, Commission, 15 October, 2005/15/CE of Council 28 February, 2005/16/EC, Commission, 2 March, 2005/18/EC, Commission, 2 March.
- 5 On the main differences between the Directive 90/220/EEC and Directive 2001/18/EC, J. N. Fernandes, “Enquadramento legal e institucional dos microrganismos e organismos geneticamente modificados (MGM/OGM) em Portugal e na União Europeia II, *Boletim de Biotecnologia*, 2002, 5-8.
- 6 J. N. Fernandes, “Enquadramento legal e institucional dos microrganismos e organismos geneticamente modificados (MGM/OGM) em Portugal e na União Europeia I, *Boletim de Biotecnologia*, 2001, 70, 33. Until 2001, there were two notifications of clinical trials with *Penicillium chrysogenum* (for cheese production) and *Saccharomyces cerevisiae* (Microorganismos). Only in 2002, the notifications reached the number of twelve. On the administrative rules of consent, see STA 10 April 2002, about “Elgina corn”, www.dgsi.pt.
- 7 Law-Decree 160/2005, 21 September 2005, DR 182, I- Série A. According to art. 26-A of Law Decree 164/2004, 3 July, DR 155, I Série A, 3 July 2004, a specific ruling would have to be approved about the measures to prevent release of GMO, including measures of coexistence between traditional methods of cultivation and GMO cultivation. This last

- 7 The Frame Law on Environment Protection, Law 11/87, 7 April 1987⁸ (amended by Law 13/2002 19 February 2002⁹) states in its art 41, 1 that anyone who causes serious damages to the environment, in a particularly dangerous action, being established causation between the behaviour and damage, is strictly liable for the damages caused.
- 8 Although literally the scope of application only covers damage to the environment itself (*danos ecológicos*), many commentators are of the opinion that it also applies to *danos ambientais*, damage caused to the health of a person or the right of use of a thing, through the impairment of the environment¹⁰. There are no relevant differences between these two heads of damages¹¹. Moreover, according to this viewpoint, it makes no sense to have two grounds of liability if frequently damages caused to the environment flow directly from the infringement of property rights.¹²
- 9 Another argument that may be referred to is the fact that since Portugal signed the Lugano Convention (on Civil liability for damage resulting from activities dangerous to the environment) environmental rulings should be read in the light of its dispositions. And in fact, the Convention covers both types of damages.
- 10 In practice, the absence of a rule extending the scope of application to damages to personality or property rights is irrelevant, since the majority of the legal scholarship considers that art. 41 is not in force.¹³ Due to its vagueness, art. 41 needs further regulation (as the legislature also states in the article, as far as the amounts of compensation are concerned).
- 11 Law 83/95 31 August 1995 (*Lei da Acção Popular*; class actions Law) also imposes strict liability where an activity dangerous to the environment causes
- statute amended partially Law Decree 72/2003 10 April 2003 (transposed the Directive 2001/18/EC of the European Parliament and the Council). Previously Decree law 129/93 20 April was the law of transposition of Directives 90/219/EEC and 90/220/EEC, of 23 April.
- 8 DR 81, I Série-A, 7 April 1987.
- 9 DR 42, I Série-A, 19 February 2002.
- 10 See, for all, the distinction about the two concepts, J.S.C.Sendim, *Responsabilidade civil por danos ecológicos: da reparação do dano através da restauração natural*, Coimbra Editora, 1998, 129.
- 11 In general terms. But requirements might be different and the rules of compensation might present slight differences.
- 12 F.R. Condeso, *Direito do Ambiente*, Almedina, Coimbra, 2001, 101; J. M. Leitão, “Instrumentos de Direito privado para. protecção do ambiente”, *Revista Jurídica do Urbanismo e Ambiente*, 1997, 7, 26-65., L. M. Leitão, “A tutela civil do ambiente”, *Revista Direito Ordenamento do Território*, 1999, 4- 5, 11.
- 13 Contra, V. Pereira da Silva, *Verde Cor do Direito-Lições de Direito do Ambiente*, Almedina, Coimbra, 2002, 265 et seq.. The Supreme Court, however, follows the prevailing view, STJ (Supremo Tribunal de Justiça 10 May 2005), www.dgsi.pt.

substantial harm and it could be read as a law developing environmental law. In spite of having a similar scope of protection it is worth mentioning that Law 83/95 protects homogeneous individual interests, which is not a requirement of the application of the Environmental Law. The prevailing view refuses to see in Law 83/95 a developing regulation.¹⁴ To some others, the legislature cannot impose strict liability¹⁵ without a rigorous definition of its requirements. And general clauses as „substantial harm” or „activity dangerous to the environment” should be explained. Since the Lugano Convention describes what is considered to be a dangerous activity (and imposes strict liability on the operator who controls the dangerous activity), this *lacuna* (on the content of the expression „dangerous activities¹⁶) can *also* be filled by the criteria of the Convention. But also the framework of judicial and doctrinal definitions of dangerous activities (for the purpose of applying a special fault-liability ruling) must be taken into consideration. Thus, if an activity by nature or by the means it convokes is likely to cause frequent or severe damages it is deemed „dangerous”.

- 12 The line taken by the Frame Law on the Environment was already subject to some criticism. It has been suggested, for instance, that not only significant damages should be recoverable, in particular if there are damages to health or property. Therefore, the definition of risk should be based exclusively on the dangerousness of the activity to the environment¹⁷. However, Lugano Convention expressly provides for strict liability in the case of significant damages (art. 8 d).
- 13 Another hypothetical liability regime is the one that is adopted by the Environmental Liability Directive” 2004/35/EC April 2004. It applies to GMO (art 18, 3 b¹⁸ and also n.11 of Annex III)¹⁹. Nevertheless, economic losses suffered by individuals do not fall within the scope of the Directive (*considerando* 14).
 - 14 M.T. S. Gomes, “A responsabilidade civil na tutela do ambiente- Panorâmica do Direito português”, in *Textos-Ambiente e Consumo*, Centro de Estudos Judiciários, II, Lisboa, 1996, 401 e ss.; J.S. C. Sendim, “Nota introdutória à Convenção do Conselho da Europa sobre responsabilidade civil pelos danos causados por actividades perigosas para o ambiente”, *Revista Jurídica do Urbanismo e do Ambiente*, 1995, 3, 147 et seq..
 - 15 According to art. 483, 2 Código Civil Português, strict liability depends upon a legal rule.
 - 16 To J. P. R. Marques, “A comercialização de organismos geneticamente modificados e os direitos dos consumidores: alguns aspectos substanciais, procedimentais e processuais”, *Estudos de Direito do Consumidor*, 1999, 1, 237, after the Directive of 1990 the Member States were forced to deal with GMO as a potentially dangerous substance.
 - 17 M. Ferreira, “Responsabilidade civil ambiental em Portugal: Legislação e Jurisprudência” in *Textos- Ambiente e Consumo*, Centro de Estudos Judiciários, II, Lisboa, 1996, 381.
 - 18 L. Bergkamp, “An international liability regime for living modified organisms?”, *ELM*, 2004, 16.
 - 19 In the White Paper on the Environmental Liability, the Commission had included damages to personal rights and goods.

However the injured person can always claim damages to protected species, to natural habitats, to water falling or to land that represents a significant risk to human health caused by the release of GMOs.

- 14 Scrutinising the Cartagena Protocol on Biosafety to the Convention on Biological diversity 24 May 2000²⁰ and the Decree-Law 7/2004, 17 April 2004 (which ratified it)²¹, we arrive at a similar outcome: property damage is not expressly included unless it is encompassed by damage to biological diversity. The same results from Regulation (EC) No 1946/2003 of the European Parliament and of the Council of 15 July 2003 on Transboundary Movements of GMO (and corresponding Law Decree 36/2006, 20 February 2006, DR 36 Série-A 20 February 2006, adopting the Protocol).
- 15 Economic loss stemming from the release of GMOs can be framed, apart from the general fault liability rule (art. 483, 1 *Código Civil Português* [CCP]), in the special liability regime in the case of dangerous activities. According to art. 493, 2 CCP, the presumption of fault can be rebutted by proving that, in spite of performing a dangerous activity, the agent took all the measures to avoid the damage.
- 16 Another (general) basis of liability is art. 493, 1 CCP. The proprietor of a movable or an immovable good with a special duty to supervise the good is liable, unless he proves he did not act with fault or that the harm would have occurred even if his duties of care were fulfilled.
- 17 Since the Portuguese Constitution (CRP) recognizes the right on the environment²² (art. 66 CRP), civil law rules are commonly read in the light of the Constitution. This is more evident in the regulation of nuisance. These rules are actually seen as environmental protection-oriented rules²³. This regulation entitles a landowner (or the proprietor of an immovable) to claim compensation in the case of emissions from another property that cause a substantial impairment to the use of the immovable or that cannot be considered as a consequence of the normal use or current use of that property. No fault is required. The Portuguese Courts apply the regime, combining it with the constitutional protection of the right to environment and the right to personality (mainly the „right to rest” or rather physical integrity)

20 *Revista portuguesa de instituições internacionais e comunitárias*, 61 ss..

21 DR I Série-A, 27 December 1994, 298, 730.

22 J.J. G. Canotilho, “Procedimento administrativo e defesa do ambiente”, *Revista de legislação e de jurisprudência*, 124, N.3802, 9.

23 L. M. M. Leitão (supra fn 12) 20-28. See also A. M. Cordeiro, “Anotação ao Acórdão do Supremo Tribunal de Justiça de 2 de Julho de 1996”, *ROA (Revista da Ordem dos Advogados)* 1996, 683.

- 18 This personality rights approach (with the legal ground on art. 70 CCP)²⁴ was particularly evident in the 80's and 90's. It led inclusively to extreme reactions against noise or other kinds of emissions, even with the sacrifice of enterprises and workers. Nowadays, the idea of a pure conflict of rights is overcome by the balancing of rights, according to the three faces of the Proportionality Principle: necessity, adequacy and proportionality *stricto sensu*. Henceforth, prohibition of the activity shall remain as the last remedy. Also compensation (for future damages) depends on if it is possible or not to harmonize emissions and the use of the property.
- 19 The Portuguese Courts have succeeded to solve many environmental conflicts (particularly those related to *danos ambientais*, not to the environment itself) applying either nuisance rules or personality rules (or both). It is obvious that economic damage resulting from GMO presence is closer to the first solution. But if it is feasible in abstract to apply such regime, it is probably difficult to convince the courts that GMO use is not a current use (unless of course there was a failure in the consent process, but then probably fault liability would apply). The other basis to raise an actionable nuisance claim is to prove a substantial impairment of the use of land, which sounds as a solid ground for GMO-liability claims. There are no decisions on this kind of claim, but it is foreseeable that the grounds of these decisions would be nuisance regulations and the environmental liability regulation (if, and only if, the court accepts the coming into force of art. 41 and the broad interpretation of the same article in order to include damages to property).
- 20 A weak support is on the contrary offered by Product Liability regulations. The main objection cannot consist anymore of the fact that the Directive and the national acts do not cover damages caused by agricultural products. In fact, after the amendment of Law-Decree 383/89 6 November that took place with Law 131/2001 24 April (which amended Law Decree 383/89 6 November), these products are also encompassed. The Product Liability Act regulates that a producer is liable for damages caused by a defendant in his product. A product is defective if it does not provide the safety a person is entitled to expect.
- 21 Here comes probably the first difficulty. Can the farmer prove the defectiveness of the product (the presence of GMO)? It should also be noted that the „defect” would occur in the productive process. The second difficulty *rectius* objection to the application of this ruling regards its own scope of application. In fact, only damages caused to property intended or used for private use²⁵ or for consumption²⁶ are encompassed. Finally, it is questionable if we should

24 R. Capelo de Sousa, *O direito geral de personalidade*, Coimbra, 1995, 295.

25 J. C. Silva, *Responsabilidade civil do produtor*, Almedina, 1999, 697-700.

26 Objective and subjective criteria are used to ascertain private use. The damaged asset must by his nature be destined to private use and the owner must use it that way. For fur-

accept in this field the state-of-the art defence. According to art. 5, e) Law-Decree 383/89, when the scientific and technical knowledge of the time when the offence took place can not be conclusive about the unsafety of a product (development risk), the producer can be exempted from liability.

- 22 Even if there is no special liability regime, the existence of special duties of care might be helpful when establishing unlawfulness or causation. In fact, in Portugal, a judicial presumption of fault is accepted where there is infringement of a protective rule, whose aim is to protect against the harm actually inflicted and to protect the person in question. Therefore, the infringement of special duties of care probably facilitates the proof of some requirements. That is the case, for instance, of:

A) the duty of information²⁷ (in particular to neighbours of the intent to plant GMOs, according to art. 4, 1 e Decree-Law 160/2005).

B) the monitoring duty; according to art. 6, 2 (v) and art. 20 Directive 2001/18/EC, the notification should include a plan for monitoring.

C) the technical rules on cultivation, such as the imposition of buffer zones and isolation distances, following Recommendation 2003/556/EEC. To illustrate with an example, Decree law 160/2005, Annex I, A, 2 1 imposes a distance between traditional corn cultivation and corn with GMOs of 200m.²⁸

- 23 Since there is no special liability regime that deals with the deliberate release of GMOs (the intentional introduction into the environment of a combination of GMOs for which no specific containment measures are used to limit their contact with and to provide a high level of safety for the general population and the environment, according to the definition in art. 2 3, directive 2001, corresponding to art. Decree law 2003), some proposals have come to light. The clear extension of strict liability to *danos ambientais*, the relaxation of the burden of proof of causation and the creation of a financial guarantee for operators performing dangerous activities are some of the measures to be adopted.

- 24 In conclusion, we can say that although there is no special liability regime, several grounds of liability can be invoked. Moreover, the most commonly used one is the nuisance regime, in spite of its general application (even to cases that escape from the protection of the environment). Probably the most

ther explanation about the restrictions as to the damages to property, J. C. Silva (supra fn. 25), 698.

²⁷ Law -Decree 19/2006 12 June transposition of directive 2003/4/CE 28 January.

²⁸ It might be difficult to implement since the North of the country is full of small parcels of cultivated land. According to Portaria 904/2006 4 September 2006, free-GMO parcels of land must have a minimum of 3000 ha all together.

adequate regime to deal with these issues is the one found in the rules of Environmental Law on liability, adjusted to some solutions of the Lugano Convention (until now not ratified). On one side, the concept of dangerous activity and the acceptance of two heads of damages as explained *supra* should be followed. On the other side, the solutions held in the Convention about defences cannot be accepted undoubtedly in Portugal as it will be explained *infra*.

- 25 The following answers presuppose that art. 41 is in force (what corresponds to a minority view in the Portuguese legal Scholarship) and that it also applies to *danos ambientais* (damage caused to health or property, in particular).
- 26 Personally, we feel we should reject in principle the establishment of strict liability regimes without the determination of caps (in this case expressly mentioned by law). We are more prone to accept that the same rules might apply to different types of damages deriving from an impairment of the environment.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 27 The general rules apply, since there is no specific provision dealing with the establishment of causation. The adverse effect on human health and the environment or property must be a foreseeable effect of the action (art. 563 CCP).
- 28 The legal scholarship accepts the theory of adequate causation. According to the positive formulation of that theory²⁹, the act of the agent is a cause of the damage if, in abstract, it was apt to produce it, in accordance with the normal course of events and the specific knowledge of the agent. Although the negative formulation is said to be the decisive one, some authors hold that in the case of strict liability the positive formulation should be exclusively applied. It was alleged that a different solution might lead to an undesired extension of (strict) liability.
- 29 In order to complement such theory, and to avoid its weak points, the judge shall examine the scope of the infringed rule and he must determine what are the interests and the persons the law wants to protect (and what is the extent of that protection). If the damage falls in the circle of the protected interests, then there is causation. The theory is presented as a doctrinal construction;

²⁹ M. J. A. Costa, *Direito das Obrigações*, 8 ed., Almedina, Coimbra, 2000, 694-704 and F. P. Coelho, *O problema da causa virtual*, Almedina Coimbra, 1973, 28; also in "A causalidade na responsabilidade civil em direito português", *Revista de Direito e Estudos Sociais*, 1976, 4, 3.

differently to what happens with adequate causation that has its legal basis (in art. 563 CCP).

- 30 There are no specific regulations allocating the costs of testing.
- 31 In the Lugano Convention, however, the cost of preventive measures and of impairments due to the adoption of preventive measures are an autonomous head of damage (art 2.º, 7, a – c) and 9).

(b) How is the burden of proof distributed?

- 32 According to the general rules, the burden of the proving liability requirements lies with the victim, the person who has to prove the factual elements of the rules he wants to invoke (art. 334 CCP).
- 33 Due to special difficulties for the victim to prove causation, the judge is more prone to accept *prima facie* proof.³⁰
- 34 Although there are special rules on transportation of GMO-products, they do not change the distribution of the burden of proof.

(c) How are problems of multiple causes handled by the regime? Does it include special rules on alternative, potential or uncertain causation? Is liability channelled to a particular person, and if so, how? Is joint and several or other collective liability foreseen, and under which conditions? Are there any specific rules for recourse between those liable?

- 35 The general rule on tort liability applies. Art. 497 CCP can be found in the section of liability for unlawful acts, but according to art. 499 CCP, rules of that section can also be extended to strict liability cases.
- 36 In tort liability, the injurers are jointly liable, even if they acted separately. Since there is no fault, the right of redress depends only on each other's contribution to the harm (art. 497, 2 CCP). If one of the agents is found guilty, he will have to sustain all damage.
- 37 There are no rules on alternative, potential or uncertain causation, but recourse to the idea of *one* unlawful act, perpetrated by several agents that infringed a rule of protection might³¹ bypass that absence. Still, it would probably be seen as a strained solution by the courts. In cases of potential claimants, the judge most probably will exempt the „potential” tortfeasor, since his act was not a

30 J. P. R. Marques (supra fn. 16) 294.

31 H. S. Antunes, “Ambiente e responsabilidade civil”, *Estudos de Direito do Ambiente*, Universidade Católica, Porto, 2003, 177.

conditio sine qua non of the damage (the first step of the adequate causation theory).

- 38 According to the Products Liability Act (art. 6, 2), the act of a third person does not exempt the producer. Therefore, according to the general rules, both are liable. However, the right of redress shall not be assessed according to art. 5, 2 of that statute, but to the general rule. The only difference is that in the Products Liability Act, apart from the degree of fault and the contribution to the damage, also the personal creation of risk is taken into consideration.

3. Type of regime

(a) *If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?*

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(b) *If it is a strict liability regime, is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, contributory negligence etc.)?*

- 39 The Environmental law does not mention defences. Act of God is regarded as a *general* defence for strict-liability cases, in spite of being stipulated only in the ruling of damages caused in traffic accidents (art. 505).
- 40 A faulty act of a third person usually excludes compensation. According to the evolving treatment of contributory negligence in recent statutes, it might be said that contributory negligence only exempts the agent if the victim acted with intentional fault (or at least with gross negligence) and if the act of the victim was the exclusive cause of the accident. If the risk factor played its role, in spite of contributory negligence, the liability shall not be excluded.
- 41 Some statutes provide solutions of diminishing compensation in the case of coexistence of risk and contributory negligence, but it is up to the courts to decide if these solutions are applied by analogy to environmental issues. If this is not the case, then environmental strict liability would appear as an absolute strict liability regime, which is unusual. Still, the defence of Act of God would be possible, according to an unwritten rule or probably the idea that in this situation there was no factual behaviour of the agent since he was dominated by stronger elements, that he could not foresee or control, even if predictable.
- 42 As to the regulatory (or permit defence), we should enhance the fact that according to the Environmental liability Directive (art. 8, 4 a), Member States can introduce it. This and other defences were mandatory in the Proposal for a Directive of the Commission in 2002. Also the Lugano Convention introduces

as a defence, proof that the damage was caused though there was compliance with the orders, conditions or measures of the public authorities.

- 43 In *R v Secretary of State for the Environment and MAFF, ex part Watson*³², an application for judicial review was brought by a organic farmer in respect of a decision granting consent for.... The consent was invalid since it failed to address the likeliness of cross-pollination and its degree. The claim was rejected; the Court of Appeal held that the regulatory regime does not require a guarantee that there will be no cross-pollination.
- 44 In Portuguese Law, in general an operator cannot exempt himself by proving he has complied with the authorities' requirements (as in the case above-mentioned, there is no general guarantee that no harm will be produced). Still, licences³³ (consents) might have an *efeito justificativo-preclusivo*, that is, the effect of preventing actions against the owner of the licence, since licences are deemed as justification of his behaviour. That effect only occurs when it is expressly prescribed by a justification rule, respecting fundamental rights.³⁴
- 45 This legitimising effect in principle does not exclude compensation (it only affects injunctive measures)³⁵. The solution has substantial support in art. 1347 CC (see *infra* 21.II.3(c)).
- 46 Also the main provision on liability, art 41, 1 of the Environmental Law, states undoubtedly that compensation takes place even if the agent obeys the rules.
- 47 The case law disregards completely the existence of a licence. Either to ask preventive measures, or to claim compensation, this defence is seldom accepted. In the Supreme Court decision of 22 September 2005³⁶, the plaintiff sustained that the noise produced (under the maximum level) represented an

32 M. Lee/R. Burrell, "Liability for the escape of GM seeds: pursuing the victim?", *Modern Law Review*, 2002, 65,528

33 J. G. Canotilho, "Actos autorizativos jurídico-públicos e responsabilidade por danos ambientais", *Boletim da Faculdade de Direito*, 1993, 69, 1-69 and R. Carvalho, "Licença ambiental como procedimento autorizativo", *Estudos de Direito do Ambiente*, Universidade Católica, Porto, 2003, 242-243 and 246-255.

34 Also F. Calvão, "Direito ao ambiente e tutela processual das relações de vizinhança", *Estudos de Direito do Ambiente*, Universidade Católica, Porto, 2003, 226-229, admitting the liability of the administration (but subsidiary), with the right of redress of the State (but according to law Decree 48051. 9, only particular and uncommon damages are recoverable). See the decisions of Tribunale I grado, Sez. II, 10 March 2004, *Malagutti-Vezinhet SA v. Commissione delle Comunità Europee*

35 J. P. R. Marques (*supra* fn. 16) 282 and G., "Il principio di precauzione quale baluardo della sicurezza alimentare: spunti problematici su coordinamento tra l'attività della Commissione e gli obblighi delle autorità nazionali", *Resp. civ. Prev.*, 2005, 2, 365.

36 STJ 22 September 2005, www.dgsi.pt.

impairment of his right of personality or/and of his right of property. The court accepted the claim.

(c) If it is no liability regime as such, but any other variety of compensation mechanism (including, but not limited to, administrative law measures, private and/or state funding), please describe its nature and functioning.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 48 No differentiation is made between liability regarding damages to crop production or to seed production.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 49 A fault liability regime coexists with the strict liability regime. Claims can be brought subsidiary, if the plaintiff is afraid of being unable to prove the specific requirements of tortious liability.
- 50 The rule of coexistence of liability regimes is expressly stated in the Product liability Act (art. 13).
- 51 Also two strict liability regimes can coexist. Neighbour law can for instance be the basis of a subsidiary claim, where an impairment of the environment did not reach the threshold of „significant damage”.

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described (thereby focusing specifically on the kind of losses covered by this study)? In what way is pure economic loss handled differently to other types of losses, if at all?

- 52 Damage consists of the infringement of a legally protected interest.
- 53 Compensation covers actual positive damage and loss of profit (art. 564 CC). Also future damages are recoverable if predictable.
- 54 Pure economic loss³⁷ is not recoverable in tort liability unless there is a rule providing for its compensation.

³⁷ J. Sinde Monteiro, *Responsabilidade por conselhos, recomendações e informações*, Almedina, Coimbra, 1989, 187 et seq., 269 and 281-286.

- 55 According to Art. 48, 3 Environmental Law if reconstitution is not possible³⁸, the agents have to pay a special compensation (that shall be determined by Law) and to bear the costs in order to minimize the effects. This rule is deemed to represent the general regime on compensation of environmental damage (for all grounds of liability).
- 56 According to general rules of compensation (art 566, 1 CCP), payment in money occurs if reconstitution is not possible, too demanding for the tortfeasor or if it only covers partially the damage caused. It seems there is a clear preference for *restitutio*³⁹ in Environmental Law, since only one condition (impossibility) allows the payment in money.
- (b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?*
- 57 Fear may justify preventive measures, but it cannot be deemed as actual damage. According to art 7.4 Lugano Convention, if there is an imminent risk of contamination due to the infringement of technical rules, the authorities can order the total or partial destruction of the GMO cultivated fields.
- 58 This solution is also grounded on the fact that according to the legislature GMO-cultivation, following the administrative proceedings, should not have restrictions. That idea is stated in *considerando* 4 of the Preamble of Law - Decree 160/2005.
- 59 Art 3 1 a) Environmental Directive Liability also applies if there is an imminent threat of environmental damage.
- (c) Where does the scheme draw the line between compensable and non-compensable losses?*
- 60 There are no special rules on the issue. A Portuguese judge would most probably deny compensation. If the producer cannot sell his products, because there is an unjustified fear that all products of the same region are contaminated, he cannot recover loss of profits. There is no causal link between the direct injury (to the contaminated crop) and the „damage” sustained by the farmer.

38 J.S.C. Sendim (supra fn. 10) 181.

39 M. T. S. Gomes “ A responsabilidade civil na tutela do ambiente. Panorâmica do direito português.”, 1

(d) Which are the criteria for determining the amount of compensation?

- 61 Since, at the moment, there is a market-advantage for non-GM products (especially if organic), damage must be assessed taking into account the depreciation of the products, according to market-prices.
- 62 The Directive 2001/18/EC regards the spread of the GMO(s) in the environment as a „potential adverse effect” (Annex II) and suggests that there should be a „comparison of the characteristics of the GMOs with those of the non-modified organism”.
- 63 Costs in order to regain a certain producer status (publicity) would most probably not be covered.

(e) Is there a financial limit to liability?

- 64 Art 41, 2 of the Environmental Law states that the amount of liability will be regulated in a special statute (which did not occur until presently). That is precisely the reason alleged to consider that art. 41 is not in force.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 65 The Frame Law on Environment (art. 43) provides that those who perform activities with a high degree of risk (as such qualified) shall take out liability insurance.
- 66 The ruling is not in force, according to the majority of legal commentators. Regulation on the coverage, caps and the characterization of the activities of the environmental operators are still missing⁴⁰. Therefore, it would be inappropriate to impose such a vague duty.

(g) Which procedures apply to obtain redress?

- 67 There are no special rules. An ordinary action takes place.
- 68 The claimants are exempt from the payment of preparatory judicial costs if there is an infringement of the rules prescribed (art. 44).

40 J. P. Reis, *Lei de bases do Ambiente (Anotada e comentada)*, Almedina, Coimbra, 1992, 93 et seq..

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 69 According to Directive 2001/18/EC (art. 23), where a member State considers that a GMO, which has been properly detailed and has been given written consent, might constitute a risk to human health or the environment, the member State may provisionally restrict or prohibit its use and or sale. In cases where there is a severe risk, suspension and termination measures shall be available.
- 70 Suspension can also be obtained by individuals, according to art. 42⁴¹. Also preventive measures thought to protect collective interests can have the same effect⁴². The Frame-Law of Environmental Administrative Penalties, Law 50/2006, 29 August 2006 (DR, I- Série, 166, 29 August 2006), allows the suspension as a provisional measure (art. 41) and as an accessory sanction (with the limit of three years, and if there was a serious and clear infringement of the agents' duties or if he abused his functions due to a special blameworthy act, according to art. 30)

5. Compensation funds

- 71 According to art. 14 law Decree 160/2005, the government must create a fund to cover economic loss⁴³, flowing from accidental contamination, financed by producers and private entities involved in the production process.
- 72 The Act providing for the Compensation Fund was approved by the Council of Ministers on 8 June 2006, but it has not yet been ratified and published. According to the corresponding Draft, the Fund is targeted to compensate

41 J. E. F. Dias, "As providências cautelares na acção popular civil ambiental e o relevo do princípio da proporcionalidade", *RevCEDOUA*, 2002, 1, 133. R. de Andrade, *A acção popular no Direito Administrativo português*, Coimbra Editora, 1967.

42 J. E. F. Dias (supra fn. 41) 142-143. See also M. A. S. Aragão, *O princípio do Poluidor pagador*, and J.J. G. CANOTILHO, "A responsabilidade por danos ambientais – aproximação juspublicística" in *Direito do Ambiente*, INA, Oeiras, 1994, 397-399.

43 The ecologist party "Os Verdes" submitted the Proposals of the Government on this field to harsh criticism. It criticized the fact that the Fund only covers certain economic losses. Apart from non-pecuniary loss, also some pecuniary losses were forgotten. The costs of depreciation of the products, the costs of preventive measures, the loss of clients and the shortening of productivity should have also be encompassed by the compensation. Moreover, the limit of 0,9% shall not be immediately adapted as a limit for compensation, since it was thought specifically for labelling products. Finally, the requirements of such compensations should not depend of an ad hoc Commission and even the legal requirements cannot be accepted. Contaminations may occur from one campaign to the other, situation set apart by the legislature. Some minor critics targeted the limitation period of the Fund (five years) and the fact that the Fund is based on the taxes on seeds' packages, clearly insufficient.

eventual economic damages, due to accidental contamination (art. 1, 1). It entitles farmers, private or legal persons, to claim compensation if the contamination of GMO in their products is over 0.9%. More recently, another special Fund was created, the *Fundo de Intervenção Ambiental*. According to Law 50/2006, 29 August 2006, this Fund covers the expenses for the prevention and compensation of damages deriving from acts harmful to the environment, namely where the agents cannot give compensation in due time (art. 70). There are no references on the field of application of this Fund in comparison to the specific GMO-Fund. A regulation shall be enacted by the Government within 120 days (art. 69, 2).

- 73 In order to claim compensation for the damages caused to the products „in the first phase of marketing (art. 2), the person entitled must prove that:
- a) the contamination had occurred in the same cultivation campaign and in a species sexually compatible with GMOs cultivated in the country;
 - b) the contamination had actually occurred, namely through the identification and measurement of the actual GMO (based on reliable laboratorial results); and
 - c) the seed used had been certified.
- (b) *How are these funds financed?*
- 74 Green taxes⁴⁴ play an important role when it comes to financing funds.
- 75 The (Draft of the) Law-Decree states that the fund is based on the annual taxes on seeds' packages of GMOs⁴⁵ and of any income and goods of the Fund (art. 6, 1). Producers and private enterprises as part of the correspondent productive process should support this fund, according to art. 14 Decree-Law 160/2005.
- 76 The *Fundo de Intervenção ambiental* is financed by part of the amounts obtained by the administrative measures (art. 70 Law 50/2006) against whoever commits an unlawful and faulty act, by breaching the legal rules and other regulations on the environment that recognize rights or prescribe duties (art. 1, 2 Law 50/2006).

44 Introduced, in this field of GMO, by Law Decree 63/99, 2 March; C. SOARES, "The use of tax instruments to deal with air pollution in Portugal", *RevCEDOUA*, 2003, 1. T. M. Leitão, *Civil liability for environmental damage*, EUI, , Florence, 1995. Fixing the most recent amounts, Portaria 384/2006 19 April, DR 77 Série I-B 19 April.

45 C. Soares, "A inevitabilidade da tributação ambiental", 23-48 in *Estudos de Direito do Ambiente*, Universidade Católica, 2003, Porto ed. M. M. ROCHA..

(c) Is there any contribution granted by the national or regional authorities?

- 77 There are no references to special contributions by the national or regional authorities.

(d) Is the contribution to the fund mandatory or voluntary?

- 78 See b).

(e) Is a balance established between the money paid into the fund and expenses of the fund? If so, at which time intervals are levies adapted to the actual expenses?

(f) How are the funds operated?

- 79 The *Direcção-Geral de Protecção das Culturas* (DGPC) is in charge of managing the Fund.

- 80 The *Grupo de Avaliação* (Avaliation Group) is the body in charge of deciding about justified claims. Representatives of the Ministry of Agriculture, Rural Development and Fishing, and of associations of farmers, producers, sellers and other industries in the field are part of the GA.

- 81 The Group must also assess the amount of compensation, and the decision must be approved by the Minister of Agriculture, Rural Development and Fishing.

(g) Are there any provisions for recourse against those responsible for the actual cause of the loss?

- 82 According to art. 8, 2, compensation claims based on the infringement of technical rules (prescribed by Law-Decree) are excluded from the application of the Law-Decree on the Compensation Fund. The legislature, in the same article, states that these claims shall be ruled by Law-Decree 160/2005 and the general ruling on tort liability. The first Statute does not regulate civil liability claims, although it prescribes administrative sanctions in case of breaching the duties. The remission to „the general ruling on tort liability” is contestable if meant in a strict sense. A literal reading draws the conclusion that only the general rule of fault liability, based on the proof of fault (art. 483 CCP) would apply. The conclusion cannot be accepted. As explained before, there are in Portugal other regimes of compensation, based on strict liability (Environmental Law) or on presumptions of fault (art. 493 CCP). Therefore, it seems that the rules on civil liability apply (not only the *general* rule). Nevertheless, the legislature seems to accept that the Fund might pay if there is a faulty act of the farmer, but in this case there is recourse (art. 12, 6).

6. Comparison to other specific liability or compensation regimes

- 83 The „specific” liability regime described does not regard GMOs exclusively. Environmental liability does not depend on fault nor does the product liability regime. Both are regarded as exceptional, since the general rule of liability is based on proof of fault.
- 84 In spite of detailed regulation, the Product Liability Act is scarcely applied. Proving the defect (when possible) corresponds to proof of fault in many cases. Therefore, the action is usually actionable on the basis of general tortious liability.
- 85 Contrary to that, Environmental Law provides just a few rules on liability. The paucity of regulation was also the cause of the doubts of whether the Law was or was not in force.
- 86 Both regimes are confined with other rulings that take what could be their natural space. Rules on consumer protection replace product liability solutions. Neighbourhood regulations offer an extensive protection and fulfil the role of a basilar system of environmental protection (in civil law).

II. General Liability or other Compensation Schemes

1. Introduction

- 87 As it was mentioned in the Introduction, several regimes can be applied to economic damages resulting from GMO presence in traditional crops.
- 88 First of all, the victim can claim compensation for the damages caused by the unlawful act of a third person who acted with intentional or non-intentional fault (art. 483, 1 CCP). The unlawfulness might consist of:
- A) infringement of an absolute right, such as property.
- B) infringement of a protective rule, as some technical rules in GMO-Directives and Regulations. In case of infringement of a *Schutznorm*, the courts will presume fault.⁴⁶
- C) infringement of bonus mores (art. 334 CCP).

⁴⁶ According to J. P. R. Marques, *Biotechnologia(s) e Propriedade Intelectual*, I, (unpublished), Coimbra, 2005, 813, fn. 2232, the classification of Decree law 72/2003, 10 April /2003 (previous to 2005) as a rule of protection is questionable. On rules of protection, J.S. Monteiro (supra fn. 37) 383 and A. M. Cordeiro, *Da responsabilidade civil dos administradores*, Almedina, Coimbra, 1998, 404.

- 89 As explained previously, two presumptions of fault are also a possible ground for liability. Either because the GMO-farmer has a special duty to supervise his own land and prevent damages to other persons or because he is operating with dangerous activities, his fault is presumed, according respectively to art. 493, 1 and art. 493, 2 CCP.
- 90 Finally, it should be mentioned that the regime on private nuisance seems quite satisfactory due to its extent of protection (any damage is covered: patrimonial, non-patrimonial, ecological damages and damages caused directly to individuals.)

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 91 Art. 563 CCP represents the general rule⁴⁷ for establishing causation, regardless of the type of liability.
- 92 See supra 21.I.2(a).

(b) How is the burden of proof distributed?

- 93 See supra 21.I.2(b).
- 94 It has been held that fault presumptions also cover causation matters. That position remained isolated in the legal scholarship and in the case law. On the contrary in the case of a presumption of fault, the proof of a special link between the dangerousness of the activity and the damage caused is also required.
- 95 Illustrating with a (real) example: an enterprise was working on a bridge, recovering some parts of the structure. Due to the lack of signs informing that such work was taking place, there was a car accident. The owner of the car alleged that since the building is a dangerous activity, the burden of the proof lies on the plaintiff. The Court decided however that the damages could not be imputable to the particular dangerousness of the activity. Even if the enterprise was planting flowers, the cause of the accident would remain the same: the lack of signs.

47 L. M. Leitão, *Direito das Obrigações*, I, Almedina, 2000, 302-308.

(c) How are problems of multiple causes handled by the general regime?

- 96 Several agents are jointly liable for the damage caused (art. 497 CCP). As to the right of redress, it depends on the contribution to the damage and the degree of fault of the demandants.
- 97 See also supra 21.I.2(c).

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 98 The Portuguese tort law adopted an objective standard of fault. There is fault if the agent did not act, as, according to the circumstances of the case, a reasonable person would act (art. 487 CCP).
- 99 In the case of professionals, that rule means that the professional must act as a good and competent professional in his area of knowledge. The existence of statutory behavioural rules helps the judge to ascertain the correct behaviour that ought to have been taken.
- 100 According to art. 493, 2 CCP, the agent can rebut the presumption of fault by proving he took all the measures to avoid the damage. Some legal commentators saw in the wording of the article („adopt all measures) a more demanding criterion than the general one. The case law, however, never accepted the „alleged” difference between this article and rules on presumption of fault, except as far as virtual cause is concerned. The agent, in the case of dangerous activities, cannot be exempt from liability by proving that the damage would have occurred even in the case of due care.
- 101 In the case of an infringement of established statutory rules defining the required conduct for GMO agriculture, fault is presumed, if the damage falls within the circle of interests protected by the rule.
- 102 If, on the contrary, the rules were obeyed, but that did not prevent the occurrence of damage, GMO farmers might be responsible because of the impairment of property or health.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, etc.)?

- 103 See next question.

(c) Does your jurisdiction provide for special rules applicable to cases of the landowner or similar neighbourhood problems?

- 104 The main rules applicable to cases of neighbourhood problems are art. 1346 and art. 1347 CCP. According to the first article, the proprietor of an immovable has the right of opposition against emissions of smoke, heat, noise or other analogous substances if the emission causes substantial harm to the use of the immovable or if it does not correspond to the normal use of the immovable. The remedy provided is not only the termination of the emission (*actio negatoria*) or even the change of conditions, but also compensation. In spite of the silence of the law, no one doubted that „liability measures” were also a consequence of such emissions.
- 105 The landowner can claim for damages caused by the construction or the conservation of works or stores of dangerous substances, if there is the fear that they might be noxious to neighbours (art. 1347, 1 CCP⁴⁸). If the works or stores had been approved or if there was abidance to administrative measures, only when actual damage occurs is it possible to ask for their destruction (art. 1347, 2 CCP). Fear is therefore only relevant when there is actual damage. Before that, administrative rules seem to legitimize the action.
- 106 In any case, either if there was abidance or licence or not, the victim can claim compensation, without having to prove the fault of the other landowner.
- 107 As already said in the Introduction, the nuisance regime is now read as an environmental rule, although there are still some limitations, as to the fact it requires a property right. An extension of the protection to lessees⁴⁹ and also to persons that cannot properly be called neighbours (because they live too far) is desirable.⁵⁰

4. Damage and remedies

(a) How is damage defined and measured (thereby focusing specifically on the kind of losses covered by this study)?

- 108 According to M. Leitão, „traditional concepts of harm and injury may need to be revisited, in circumstances where questions of *variability* rather than traditional *impairment* are in issue”.⁵¹ The traditional definition (see *supra*

48 In this article, emissions not covered by the previous article are encompassed, F. Pires de Lima/J. A. Varela, with the collaboration of H. Mesquita, *Código Civil Anotado*, III, 2 ed., Coimbra Editora, 1987, 180.

49 F. Calvão (*supra* fn. 34) 201-203.

50 F. Pires de Lima/J. A. Varela, with the collaboration of H. Mesquita (*supra* fn. 48) 178.

51 M. Forster/D. Lawrence, “The Cartagena Protocol: moves towards establishing an international liability regime for living modified organisms” *ELM* 2003, 15, 7.

21.I.4(a)) would be replaced by a new formula, where damage is identified as the frustration of a utility protected by the law.

- 109 Pecuniary damages and non pecuniary damages entail compensation.
- 110 Pure economic loss is recoverable if there is a rule protecting „patrimonial integrity per se”. Usually, it occurs in the field of obligation of information or disclose.
- 111 Some commentators believe that in particularly when there was a faulty act causing damage to the environment, compensation should entail the loss obtained.⁵² *De iure condendo*, the solution would have a decisive preventive effect.
- (b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?*
- 112 See supra 21.I.4(b).
- (c) Where does your legal system draw the line between compensable and non-compensable losses?*
- 113 See supra 21.I.4(c).
- (d) Which are the criteria for determining the amount of compensation in general, and how would this apply to the kind of cases covered by this study?*
- 114 In general, *Differenztheorie* applies (art 566, 2 CCP). Future damages and loss of profits are also recoverable.
- 115 As Environmental Law also applies to fault liability cases, the rules described in 21.I.4(d) shall also be taken into consideration. A clear preference for *re-constitutio in integrum* is a conclusion that can be drawn by the reading of the mentioned Law.
- 116 It is probably interesting to mention the evolution of the compensation rules in the case of water pollution. Art. 73 Law- Decree 236/98, 1 August 1998, prescribed that when it was not possible to quantify the damage with accuracy, the court shall decide on equity, taking into consideration the impairment of

⁵² H. S. Antunes (supra fn. 31) 153.

the environment as such, the predictable cost of reconstitution and the economic advantages stemming from the infringement⁵³.

117 The law was revised by Lei n 58/2005, 29 December 2005⁵⁴. Art. 95 replaces the above-mentioned rule, stating that him who causes an impairment in the state of water...must bear the total costs of the necessary measures to recover the previous situation.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

118 A financial limit to liability does not exist if there is fault-liability. In the case of strict liability (Products liability Act), the caps were abolished by Law Decree 131/2001 24 April (which amended Law Decree 383/89 6 November).

119 If there is contributory negligence of the victim, *vis-à-vis* fault of the agent, compensation may be reduced or even excluded (art. 570 CCP). Where the agent is liable due to a presumption of fault, contributory negligence of the victim exempts the agent (art. 570, 1 CCP)

120 Art. 494 CCP states that where the damage was caused with non-intentional fault the judge might diminish compensation, taking into account the degree of fault of the agent, his and the victim's economical means and other circumstances of the case⁵⁵. According to the traditional view, the article does not apply to strict liability.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

121 See 21.I.4(f).

(g) Which procedures apply to obtain redress in such cases?

122 See 21.I.4(g).

53 DR 176/98 Série I-A 1 August 1998. On the scope of the article, see H. S. Antunes (supra fn. 31), p.153, fn. 14 and L.M. M. Leitão (supra fn. 12) 37.

54 DR 249, Série I- A 29 December 2005, Law of water.

55 J. A. Varela, *Das Obrigações*, I, 10ed., Almedina, Coimbra, 2000, 913-914.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

123 There are no specific regulatory rules that apply generally. The 2006 Draft on Compensation Funds prescribes, however, that the costs arising from sampling and testing shall be borne by the claimant (art. 9, 5).

124 In the case of general monitoring, the farmer who is obliged to monitor the environmental impact⁵⁶ supports the costs.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

125 Usually there are no agreements shifting the costs to other farmers. As far as the procedure for granting consent for the deliberate release and placing on the market of GMOs is concerned, sampling and testing costs are supported by the person interested in releasing or distributing the GMO.

126 In the case of actual damage (see *infra* question 3), general tort rules apply. Portuguese case law gives a stringent rule on costs incurred to prove damages. Usually costs are not encompassed in the amount of compensation.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

127 Recoverability, in abstract, depends on the existence of actual GMO presence.

128 Where there is no actual GMO presence, it is doubtful if there is causation and damages.

129 Costs of destruction in the case of contamination due to the infringement of technical rules, according to art. 7, 4 Lugano Convention, are supported by agents who do not obey such rules. Also the Frame Law on Environmental Administrative Measures, Law 50/2006, 29 August 2006, includes in the costs of the proceedings, the costs of testing and expertise (art. 58, 1, g).

⁵⁶ M.M. Rocha, *A avaliação do impacto ambiental como princípio do Direito do Ambiente nos quadros internacionais e europeus*, Universidade Católica, Porto, 2000 and “O Princípio da avaliação de impacto ambiental”, 143 in *Estudos de Direito do Ambiente*, Universidade Católica, Porto, 2003 (ed. M. M. Rocha).

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 130 There are no special conflict of laws rules.
- 131 As to (internal) jurisdictional rules, the initial version of art. 45 of the Environment Frame Law (Lei 11/87, 7 April) gave competence to judicial courts (*jurisdição comum*), setting apart administrative courts. The solution however was deemed unreasonable and hardly compatible with the constitutional recognition of administrative jurisdiction. Therefore, in the case of environmental damages caused by public authorities, the case law was clearly against the solution of excluding administrative courts.
- 132 With the reform of art. 45 by Law 13/2002, 19 February (*Reforma do Contencioso administrativo*) and the new Statute of administrative courts (approved by the same law), the administrative jurisdiction depends on the fact that environmental damages were caused by a public authority.
- 133 Some commentators have enhanced the fact that administrative law is „better positioned”⁵⁷ to solve environmental conflicts. Thus, the fact that the tortfeasor is not a public authority should not exclude immediately an administrative action.
- 134 Recourse to private law is the solution where damages to the environment were not caused by administrative rules on environmental issues⁵⁸ or were out of the scope of protection of the infringed rule.
- 135 But the infringement of administrative rules might also extend the civil protection. Nuisance rules require a right *erga omnes*. The proprietor of the fields where the crops were affected might claim damages according to these rules, but the same does not apply to the lessee or other claimants. In such a case, administrative reaction (even parallel to private reaction based on personality rights, such as the right of personal physical integrity, or based on the rules on

57 M. A. Almeida, “Tutela jurisdicional em matéria ambiental”, *Estudos de Direito do Ambiente*, Universidade Católica, 2003, Porto ed. M. M. Rocha, 81. See also A. M. Cordeiro, “Tutela do ambiente e Direito civil”, in *Direito do Ambiente*, Oeiras, 1994, 379.

58 Law Decree on noise pollution 146/2006, 31 July DR, I Série- A 146.

possession) is regarded as possible, according to some parts of the legal scholarship.⁵⁹

- 136 In practice, it seems that only preventive measures can be required in administrative courts. Amongst them is the right of *inibitoria action*, which forces the agent to stop the noxious action. The legal basis is: art. 40, 4 Environmental Frame Law and art. 70, 2 CCP (in the special case of a personality-based action).

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 137 International jurisdiction depends the occurrence of one of the following circumstances:
- a) if the plaintiff or some of the plaintiffs live in Portugal, except if there is a claim over immovables, located abroad;
 - b) if there is territorial competence over the subject of the action;
 - c) if one of the acts was committed in Portugal;
 - d) if it would be too demanding to force the plaintiff to present a claim abroad or if efficacy could not be assured.
- 138 Portuguese courts are exclusively competent to decide actions over immovables located in Portugal (art. 65- A *Código de Processo civil*- Civil Procedure Code).
- 139 The Brussels convention (1992) was applied on the matter of international jurisdiction. Now the follow-up regime of Regulation (EC) 44 (2001) governs.
- 140 According to the legal basis found (personality/nuisance/tort), the corresponding rule of law applies. The prevailing legal characterization consists of reporting the mentioned cases as tort law cases.
- 141 Therefore, according to art. 45, 1 of CCP, tort actions are dealt with under the law of the State where the main conduct that caused the damage took place. In the case of omissions, the law of the State where the action should have been held would apply.

⁵⁹ If, of course, administrative rules were also infringed; M. A. Almeida (supra fn. 57), p.84, fn.11.

- 142 If, however the Law of the State where the damage took place considers there is liability, in spite of the opposite solution of the law of the country where the conduct was held, the first law applies if the agent could have foreseen that the damage might have occurred and that it might have occurred in that country (art. 45, 2 CCP).
- 143 Where the defendant and the plaintiff have the same nationality or at least live in the same country, national law or the law of his domiciliary apply, if they are occasionally abroad.
- 144 The option of *lex loci delicti commissi* was grounded for several reasons. First of all, it might be associated with the punitive function of tort liability. Furthermore, the solution clearly favours the recognition of judicial decisions. Finally, some other rules are inadequate (v.g. *lex patriae*). Still, the solution of *lex patriae* rules was accepted although as a subsidiary solution.
- 145 The concern for foreseeability, even if it has less importance in strict liability cases, also justifies the solution presented.⁶⁰
- 146 According to art 46, 1 CCP, the law applicable to property is the law of the country where the movables or immovables are located.
- 147 As to personality rights, national law (personal law) prevails, according to art. 27 CCP.

60 J. B. Machado, *Lições de Direito Internacional Privado*, 4ed., Almedina, Coimbra, 1990, 369-373 and, more recently, N.C.-B. Bastos, "Das obrigações em regras de conflitos do Código civil", in *Comemorações dos 35 anos do Código Civil e dos 25 anos da reforma de 1977*, Coimbra Editora, 2006, 667-679.

22. SLOVAKIA

Anton Dulak

I. Special Liability or Compensation Regimes

1. Introduction

- 1 The rights and duties concerning users/operators of genetic technologies and GMOs are regulated by Act No. 151/2002¹, which came into effect on April 1, 2002, and was amended by Act No. 77/2005. For its implementation, Decree of the Ministry of Environment of the Slovak Republic No. 252/2002 has been adopted. While Act No. 184/2006 on genetically modified agricultural production contains no special liability provision, reference is made to the general rules of Tort Law in the Civil and the Commercial Code.
- 2 No special compensation regime for the damage resulting from the operation/use of genetic technologies and GMOs has been included in these statutory rules. GMOs used in restricted facilities and their deliberate release must be considered to be operations under § 420a of the Civil Code. Liability under § 420a is a special type of objective liability existing in any type of activity of the nature of a business operation (see explanation below).
- 3 The law only partially removed some uncertainty concerning liability for damage resulting from the use of GMOs. There are still some doubts, for example, of how to determine a claim where damage has been caused by an activity beyond those referred to as „deliberate release”, or liability for damage occurring in „other than contained facilities”.
- 4 Thus, compensation manifestly caused by genetic technologies and GMOs is governed also by some other rules and regulations.
- 5 The system of private law in the Slovak Republic, distinguishing between civil and commercial relations, makes similar distinctions between liability rules arising from these relations. In the absence of relevant provisions in the Commercial Code, the provisions of the Civil Code will apply.
- 6 As far as I know, there are no other liability rules for damage caused by genetic technologies and GMOs other than those governed by the provisions of private law. In 2004, the law in support of environmental protection was

1 V úplnom znení zákon č. 151/2002 Z.z. o používaní genetických technológií a geneticky modifikovaných organizmov.

adopted, under which a special Environmental Fund was established within the framework of governmental support, and its resources can also be used for the elimination of harmful events threatening or damaging the environment (§ 4 (1) (e)).

- 7 The Environmental Fund resources are limited to cases enumerated in § 4. of the Act. There are no statutory provisions for compensation of economic loss resulting from the use of GMOs, even though the fines imposed for a breached duty under the GMO law are paid to the Environmental Fund².
- 8 Environmental Fund resources used for elimination of the results of calamities threatening and damaging the environment are considered to be an auxiliary measure. The law stipulates also additional conditions for the use of these resources – which cannot be used, e.g. in cases where the originator of a calamity is known. (§ 4 para. 6).

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 9 The *conditio sine qua non* test is recognized as a standard test in establishing liability for damage in Slovakia. Even though the Slovak Civil Code does not contain provisions explicitly dealing with causality, theory and jurisprudence agree that in order to establish liability, there must be a causal relationship between the wrongful act/omission and damage objectively proven (and in cases of fault-based liability, fault has to be shown). The *conditio sine qua non* test cannot be taken as the sole applicable criteria in establishing causality.
- 10 Considering the foregoing, it is improbable that proof of expenses incurred in relation to the testing of any contaminated product will constitute sufficient proof of a causal relationship.

(b) How is the burden of proof distributed?

- 11 Liability for damage resulting from genetic technologies and GMOs in cases of contained facilities or deliberate releases is a special type of liability (strict liability). For liability to arise, the injured party/plaintiff must prove that the damage resulted from the defendant's business operations, showing the exact extent of the damage and producing evidence of a causal relationship between the defendant's operation and the actual damage caused by such operation. All

² Pozri novelizované ustanovenia § 29 ods. 5 zákona č. 151/2002 Z.z. o GMO.

of these elements of liability must be established; their existence cannot be presumed.

- 12 The injured party may benefit from the application of § 420a of the Civil Code, as the law specifically defines what can be considered to be damage caused by the operation of a business. Under § 420a para. 2 it will be sufficient to prove that the damage has been caused by an activity of the nature of a business operation or is an instrument of a business operation. It will also suffice to prove that damage was caused to the surrounding environment by the physical, chemical or biological effects of the defendant's operations.
- 13 There can be multiple wrongdoers liable for the damage according to various liability regimes. The basic principle for liability of multiple wrongdoers is laid down in § 438 of the Civil Code. Such wrongdoers are liable jointly and severally. As an exemption – in justified cases only, the court may decide that those who caused the damage have individual liability by contributing to the damage. In such case the judge is obliged to explain positively why any of the multiple wrongdoers is liable individually.
- 14 Joint liability means that the damage has been caused either by joint activities of multiple wrongdoers or by their coincidental conduct (omissions). Joint activities mean that without the joint acts of all the wrongdoers, the damage would not have occurred. Coincidental means that any single wrongdoer could have caused the same damage independently of other wrongdoers.

(c) How are problems of multiple causes handled by the regime?

- 15 Under Slovak law it is insignificant whether the liable persons are multiple wrongdoers or a single wrongdoer. The wrongdoer must be identified. In the case of multiple wrongdoers, the Civil Code establishes joint liability, and only rarely allows division of the damage³.
- 16 According to the Supreme Court decision in a criminal matter⁴, each effect is the result of many causes and the real cause of the effect is the conduct in absence of which there would not be such effect. Any conduct or any circumstance may be a cause although there may be other causes and circumstances that bring about an effect.
- 17 According to another decision⁵ in a criminal case, if the damage resulted from several causes, any such cause should be assessed with regard to its impact on the resulting effect, and its relation to other constituent causes.

³ See: § 438 CC.

⁴ The Supreme Court of the SSR, Rt 37/1975.

⁵ The Supreme Court of the SSR, Rt 72/1971.

- 18 Obviously the courts must always assess every cause as to its importance to the resulting effect. In such cases Luby⁶ suggests the establishment of concurrent and separate liability of each wrongdoer of the damage. The injured party can claim compensation from any of the wrongdoers – only once, of course (otherwise it would be unjust enrichment).
- 19 As defined in Civil Code (§ 438 sec. 1), where the damage is caused by multiple wrongdoers, their liability is joint and several. In justified cases, the court can rule that a wrongdoer is liable only in proportion to his/her fault.
- 20 Joint liability applies in cases of multiple wrongdoers. It is of no importance whether their contributory conduct/solidarity is based on fault-solidarity or objective-solidarity in causing damage. The main point is that an act or omission of several persons caused the damage.

3. Type of regime

(a) If its is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 21 In cases of fault-based liability, the wrongdoer's fault is presumed and it does not have to be proved.

(b) If its is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 22 In cases of liability for damage caused by a business operation, the defendant can be released from liability by establishing grounds specifically set by law. The defendant must prove that the damage was caused by irreversible circumstance not originating from the business operation, or that the damage was caused by the conduct of the injured party.

(c) If it is no liability regime as such, but any other variety of compensation mechanism (including, but not limited to, administrative law measures, private and/or state funding), please describe its nature and functioning.

- 23 See explanation above.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 24 No.

⁶ See fn. 11, 382.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime?

- 25 It is expressly provided by the GMO law that the special liability regime (§420a of the Civil Code) applies only in cases of damage resulting from the use of genetic technologies and GMOs in contained facilities and in cases of deliberate releases (see the above examples). In other cases, the general provisions of liability for damage will apply. A claim for compensation could be based also on the provisions of § 415 of the Civil Code, under which every person is obligated to act in a manner by which no harm to other person's health, property and no damage to nature and the environment may be caused (so called general prevention). By violating this provision, fault-based liability can arise.
- 26 In cases of damage caused in contained facilities or by deliberate releases, it may be more advantageous for the injured party to seek the application of §420a of the Civil Code, since this establishes a strict liability protection. It will be sufficient for the injured party to prove that the damage resulted from the defendant's business operation; it will be difficult to eliminate liability because of reduced number of reasons for liability release (see above).
- 27 The injured party can bring a concurrent or a resulting action also upon e.g. violation of § 415 of the GMO Act. The motive can be e.g. uncertainty in establishing the fact that the damage is causally related to the operation of genetic technologies and GMOs in contained facilities or their deliberate releases. The defendant can be relieved of liability if he can show that he/she did not caused any damage.

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described (thereby focusing specifically on the kind of losses covered by this study)? In what way is pure economic loss handled differently to other types of losses, if at all?

- 28 Slovak private law makes a distinction between material and immaterial (moral) loss. As interpreted in judicial practice, material loss of the injured party can be objectively given in monetary value (cf. R 55/1971). The intended remedy for such loss is in the form of restitution or compensation.
- 29 Immaterial/non-monetary/moral loss means personal harm of the injured party. The remedy for such loss aims to reach a fair settlement /satisfaction.
- 30 Material loss can be actual damage/loss (damnum emergens) or lost profit (lucrum cessans). The Civil Code does not define the so-called moral loss or the difference between direct and indirect/remote losses.

- 31 According to established judicial practice, actual loss/damage means material loss of monetary value based on the decrease in value (reduction, destruction) of the existing property of the injured party, represented by monetary amounts necessary to restore the property to its original conditions, or to compensate, in monetary terms, the consequences in cases where such restoration would be impossible or unreasonable (cf. R 27/1977, R 5/1978). The actual loss includes also the costs associated with the removal of the harmful consequences and safety arrangements.
- 32 A lost profit means material loss given in money, which, as opposed to the actual loss, rests upon the fact that property of the injured person has not been increased by the amounts that could have been reasonably expected with regard to the usual course of business.
- (b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?*
- 33 A loss can either be actual loss or lost profit. One of the elements of liability is proving the fault. The injured person (a farmer) must present the calculation of such loss. A loss representing the difference between the selling prices of non-contaminated and contaminated production could also be considered a loss. The reasons for such price differences can be the consumers' fear of contamination. The loss exists because of the decline in the existing property (actual loss), or failure to achieve the expected expansion of property (other loss).
- (c) Where does the scheme draw the line between compensable and non-compensable losses?*
- 34 Compensation for material loss is possible if calculable in monetary terms (see above). The injured party must prove that as a result of a business operation his/her property has declined/decreased in value, or that the gains expected from the usual course of business have not been achieved. Most of all, proving a causal relationship between the loss and the defendant's business operation or breach of statutory duty can be quite difficult/problematic.
- (d) Which are the criteria for determining the amount of compensation?*
- 35 A loss means any reduction (decrease) of property value or any failure to achieve expected growth/increase in the value of property. A loss represents monetary values that must be sustained to restore the matter to its original condition or to compensation, by moneys, for resulting consequences in cases where such restoration would be impossible or unreasonable. The failure to achieve an expected gain is also a loss. There is not enough experience in the judicial practice for the expansion of the term 'material/monetary loss'. It may

be practically quite difficult for the injured party to prove that costs associated his/her contaminated GMO production (e.g. looking for new markets) have been incurred.

(e) Is there a financial limit to liability?

- 36 There is no maximum limit for compensation of the material loss. Setting limits in compensation for damage is exceptional in the Slovak private law.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 37 Current legislation imposes no duty on GMO operators to be covered by insurance or to contribute to funds from which the damage caused could be covered.

- 38 Insurance of farmers covering possible harm is not a mandatory duty set by law.

(g) Which procedures apply to obtain redress?

- 39 Insurance terms and conditions are governed by the relevant contract of insurance.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 40 Relief depends on the terms and conditions of insurance contract.

5. Compensation funds

(a) Are there any compensation funds already set up or planned in your country, whether public or private or a combination of both, that would provide for at least some compensation of losses of the kind covered by this study?

- 41 There is no statutory obligations to create a special fund to cover the damage caused by GMOs. The only exception is the Environmental Fund set up by law (see above) the primary task of which is to protect the environment, and not to cover economic losses resulting from GMOs.

(b) How are these funds financed?

- 42 Fines imposed in cases of violations of the laws on the protection of the environment form the income of the Environmental Fund.

6. Comparison to other specific liability or compensation regimes

- 43 There are no special rules governing liability for damage caused by GMO operators/users. By reference to the relevant provisions of the Civil Code, some doubts in the application of the actual liability regime may be eliminated. Liability for damage caused by specified activities of GMO operators/users is not different from liability of other business operations (§ 420a of the Civil Code).
- 44 When compared to liability rules in damage caused by defective products, the fundamental difference is in the fact that liability for defective products represents a complete statutory regulation, containing specific rules concerning liable persons, damage, limitations of compensation, reasons for liability release, etc.

II. General Liability or other Compensation Schemes

1. Introduction

- 45 Compensation for damage caused by GMO is defined as a specific type of liability under § 420a of the Civil Code. This provision generally applies to all persons operating an activity in which there is an increased risk of causing possible damage.
- 46 Explanations concerning liability for damage under the general regime are given above. General liability means liability for fault-based conduct in which fault is presumed and need not be proved. One of the elements necessary for liability to arise is evidence proving that the wrongdoer breached a duty and that the damage resulting from his/her wrongful conduct is causally related with such wrongful conduct. The wrongdoer will be relieved of liability by proving he/she did not caused the damage.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 47 The *conditio sine qua non* test is recognized as the standard test in establishing liability for damage in Slovakia. See above.

(b) How is the burden of proof distributed?

48 See above.

(c) How are problems of multiple causes handled by the general regime?

49 See above.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed? Does it make any difference if there are clearly established statutory rules defining the required conduct for GMO agriculture?

50 The first requirement for liability to arise is conduct contrary to the law, that is, conduct in violation of a statutory duty or a contractual obligation. A violation of law includes e.g. conduct contrary to the provisions of § 415 of the Civil Code, under which every person is obligated to act in a manner averting any damage. Liability can be based upon intentional conduct or negligence; the injured party does not have to prove how the damage has been caused, it is the defendant/wrongdoer who must prove that he/she has not caused any damage.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

51 GMO operators have liability for any consequences that may arise from GMO usage. Strict/objective liability arises under § 420a upon the occurrence of harmful conduct resulting from the operations of a business. Such liability is based on the damage and the causal relation between the harmful conduct and the damage caused by it.

52 The key phrase is „operation of business“ and its definition. The GMO law expressly provides that GMOs used in contained facilities and their deliberate releases are considered operations of business under § 420a of the Civil Code. That means that in cases of damage resulting from such operations, liability must be determined under § 420a.

53 The provisions of § 420a of the Civil Code can apply also to other cases, in which the injured party can prove that the damage was caused by the defendant's business operations. In para. 2 of § 420a damage is considered to have

been caused while operating a business, if it resulted from a) an activity performed in the operation of a business, or by an instrument used in such activity, b) physical, chemical, or biological effects of a business operation in the surroundings, c) lawful performance or the arrangement of such performance by which damage is caused to another person's real property, or which substantially impedes or prevents the use of his/her real property.

- 54 Operation of a business can be more widely interpreted under Slovak law than it is defined by § 420a of the Civil Code. According to the established practice, the basis of an operation of business is any organized, purposeful activity; the type of activity is not important. It is important that the activity has the nature of an operation, i.e. an activity organized to achieve the fulfilment of a set purpose/aim. It is not necessary to operate extraordinary hazardous business (cf. § 432 of the Civil Code).
- 55 For a possible relief of liability under § 420a of the Civil Code to arise it must be established that the damage was caused by an unavoidable event not generated by the operation of the business, or by the conduct of the injured person himself/herself. The burden of proof will be on the wrongdoer.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 56 The Civil Code provides for the so-called 'neighbour relations' in § 127. The owner of a thing must refrain from any activities that may be unreasonably annoying to another person. The aim of this provision is to protect the rights of owners of neighbouring property and not the legal relationships resulting from any damage caused.

4. Damage and remedies

(a) How is damage defined and measured (thereby focusing specifically on the kind of losses covered by this study)? In what way is pure economic loss handled differently to other types of losses, if at all?

- 57 The Civil Code distinguishes between compensation of property loss and personal loss (see explanations above). The term 'pure economic loss', not specifically defined in Slovak law, is covered by claims of material loss.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?

- 58 Loss is quite precisely defined in Slovak law – a loss means a wrong that can be expressed in monetary value. It is possible to compensate only a loss occurring as a result of devaluation of existing property. A loss can also occur

when, due to contamination, for example, the expected proceeds/gains could not be realized.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

59 See above.

(d) Which are the criteria for determining the amount of compensation in general, and how would this apply to the kind of cases covered by this study?

60 See above.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

61 See above.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

62 No.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

63 There are no specific rules contained in the GMO law, or any other law concerning costs associated with the testing of GMO presence in any products.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

64 The law on GMO imposes an obligation on the reporters/applicants of GMO products (§ 32, § 33) to carry out applicable tests. In the absence of express rules, such costs of testing are presumed to be borne by the applicant,

65 The law imposes a duty on producers to keep detailed records of GMOs introduced into the surrounding environment (§ 20). In the absence of express statutory rules, the costs of testing are presumed to be borne by the applicant.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 66 The law does not deal with recovery of the costs relating to testing for the presence of GMO.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 67 At present there are no special rules governing cross-border disputes concerning compensation for damage caused by GMOs. Similarly, no legislative enactment is being prepared. In the case of a dispute containing an international element/element of conflict of laws, special provisions will apply (see the explanation below).

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 68 Under § 15 of the Act concerning private international law/conflict of laws⁷, claims for compensation of damage, other than breaches of contractual obligations and other acts of law, are governed by the law of the locality where the damage occurred or the place where any circumstances establishing the right for compensation arose.

⁷ Zákon č. 97/1963 Zb. o medzinárodnom práve súkromnom a procesnom v znení zákona č. 158/1969 Zb., zákona č. 234/1992 Zb., zákona č. 264/1992 Zb., zákona č. 48/1996 Z.z., zákona č. 589/2003 Z.z. a zákona č. 36/2005 Z.z.

23. SLOVENIA

Rok Lampe

I. Special Liability or Compensation Regimes

1. Introduction

- 1 The Slovenian legal system introduced a special Act on the treatment of genetically modified organisms in 2002.¹ This act was amended in 2004.² The Slovenian Parliament affirmed the official text in 2005.³ The Act on the treatment of genetically modified organisms regulates primarily administrative provisions and technical procedures regarding modifications of genetic materials.⁴ The main function of the Act is to regulate releases of GMOs to the environment as well as the presentation of GMOs and products made out of GMOs to the market.⁵
- 2 However the Act on the treatment of genetically modified organisms is not aimed to design a special compensation regime that would apply to liability for damage resulting from GMOs. Article 3 foresees as a general principle („liability principle”) that every legal entity as well as a private person who performs any activities with GMOs in a closed system and illegally transmits GMOs to the environment, or launches GMO products to the market shall be criminally or tortiously liable, if the damage is a result of their activities with GMOs.⁶ Hence this special Act only ties responsibility for damage arising out of activities with GMOs to general provisions of criminal and tort law.

1 Zakon o ravnanju z gensko spremenjenimi organizmi – ZRGSO, official gazette of the Republic of Slovenia, nr. 67/02.

2 Zakon o spremembah in dopolnitvah Zakona o ravnanju z gensko spremenjenimi organizmi – ZRGSO-A, official gazette of the Republic of Slovenia, nr. 73/04.

3 The act itself has its European source in Directives 98/81/EC, 90/219/EEC and 2001/18/EC.

4 According to article 2 does not regulate the following procedures of modifications of genetic materials: mutagenesis, cellular fusion of eukaryotic species cells, self-cloning.

5 Within this function, the act does not regulate mutagenesis and cellular fusion of vegetal cells. Beside that the act does not cover in terms of market regulations, medicaments for use in human and veterinary medicine (which include GMOs or their combinations).

6 “(7) Pravna ali fizična oseba, ki izvaja delo z GSO v zaprtem sistemu, namerno sprošča GSO v okolje ali daje izdelke na trg, je v primeru škode, ki je posledica njenega ravnanja z GSO, kazensko in odškodninsko odgovorna skladno z zakonom (načelo odgovornosti).”

- 3 The Act on the treatment of genetically modified organisms has its basis in the environmental protection clause set out in the Constitution. According to article 72, everyone has the right in accordance with the law to a healthy living environment. This article also establishes connection to the rules of liability for environmental damage: „The law shall establish under which conditions and to what extent a person who has damaged the living environment is obliged to provide compensation”. So, according to constitutional provisions and the silence of the Act on the treatment of genetically modified organisms on special compensation scheme, the Slovenian legal system regulates civil liability for damage resulting out of GMO activities with general tort law.
- 4 Beside the general liability principle, the Act also incorporates the polluter pays principle (article 3, paragraph 8) and so called general bioethical principle (article 3, paragraph 3). The Act, as already mentioned, regulates GMOs primarily with administrative legal tools and tries to prevent and reduce damaging impact to the environment, especially in respect to biodiversity and public health.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 5 The Act on the treatment of genetically modified organisms does not include any special causational provisions. The link to potential causational issues can be traced for example in the obligation of the interested party to prepare a plan for potential measures taken in cases of an accident. This plan has to include:
 - evaluation of the potential risk to the environment and public health and possible consequences of an accident,
 - list of potential measures that will be taken in order to suppress the hazard as well as short and long-term consequences of an accident,
 - list of subjects that will be taken in fulfilment of the mentioned measures,
 - methods and the extent of spreading information to the public and the responsible authorities in case of an accident.
- 6 Of course the costs of the risk evaluation plan have to be covered by an interested party. Therefore it can be presumed that in cases where the party performing the genetic modification in a closed system does not follow the foreseen plan they could be held liable for the damage occurred. The relevant link is to be traced between the duty of care, set by the plan and failure of the defendant to meet these obligations. However I have to outline that this is only a

possibility that can be traced out of general tort law provisions and is not actually confirmed by court practice.

(b) How is the burden of proof distributed?

- 7 The regime according to the Act is silent on this subject matter. There are general tort law provisions in the Code of Obligations which set the standard of the reversed burden of proving fault as a general principle. The Slovenian legal system perhaps has the advantage that the reversed or shifted burden of proof is a part of the continuous legal practice since the federal Act on Obligational relations from 1978. The reversed burden of proving fault system will be precisely discussed in the second part of the study.

(c) How are problems of multiple causes handled by the regime? Are there any specific rules for recourse between those liable?

- 8 The only link to the liability issue is the special clause (article 13) on the subsidiary liability of the State. This provision points out that the State is responsible for assuring measures to minimize and prevent the consequences of a damaging impact, that result from GMO activities in a closed system, or an intentional release of the GMOs into the environment, or transmission to the market. The State has two main responsibilities. The first one is to regulate and to monitor activities with GMOs and the second is to warn the public in cases where the presence of GMOs in the environment could have damaging impact. If the State fails to meet its obligations, then the State could be held subsidiarily liable. Otherwise the Act does not include any specific rules on either causation or liability.

3. Type of regime

(a) If its is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 9 It can be argued that the main scope is a fault based liability regime. However there are no special provisions regarding it. Therefore the general tort law regime is applicable.

(b) If its is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 10 Due to the fact that the Act on the treatment of genetically modified organisms does not define the liability regime, it might be foreseen that in some cases the strict liability theory could be applicable, especially if activities with GMOs can be regarded as dangerous or hazardous. In this case the general

provisions of tort law set the strict liability regime, which will be discussed in the second part.

(c) If it is no liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

- 11 The main idea of the Act is to design a strict preventive mechanism that would enable GMOs to be spread with out any control. The main monitoring body is an independent Commission on the treatment of GMOs. It consists of 17 members that ought to be professionals in natural and social sciences. The functions of the Commission are:
 - to monitor the state and development regarding the treatment of GMOs,
 - to adopt standpoints and views on the use of technology as well ethical and moral dilemmas on GMO issues,
 - to advise the government on GMO issues,
 - to inform the public on GMO developments as well as to inform the public on their own views,
 - to co-operate with related institutions.
- 12 Beside the Commission, the Act also establishes two boards – the Board for activities with GMOs in closed systems and the Board for intentional spreading of GMOs into the environment and the launching of GMO products to the market. Both of the boards are expert groups, consisting of 7 members. Their function is to give expert opinions on administrative issues regarding activities with GMOs and to give expert opinions on GMO regulative.
- 13 Activities with GMOs can be classified into 3 groups:
 - treatment with GMOs in a closed system,
 - intentional spreading of GMOs into the environment,
 - launching of GMO products to the market.
- 14 All of these 3 categories follow the same structure. The interested party has to get State permission to work with GMOs. In order to get the administrative permission, the interested party has to prepare a risk assessment on his activities. This study also includes the potential impact as well as the possible consequences and proper measures for its control. The Act of course foresees detailed circumstances which an interested party has to meet in order to receive the permission on activities with GMOs. The monitoring regime, once the

party received the governmental permit to work with GMOs is again administrative. Inspection services (Market Inspection of the Republic of Slovenia) are authorized to monitor the safety of activities with GMOs in a closed system, as well in the two other categories – presence of GMOs in the environment as well as in the market. In all 3 categories inspection services control all the safety requirements of the GMO operator. Due to their violation, inspection services can prohibit further activities with GMOs. Penalties (set in article 56 and 56a) for violation of safety measures and administrative requirements by legal entities are relatively high. They differ from 1.000.000 € up to 4.000.000 €.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 15 The Act does not distinguish between the products.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 16 The liability regime is in the frame of general tort law provisions. As mentioned, the Act on the treatment of genetically modified organisms does not provide any special liability regime.

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

- 17 Only general tort law provisions are relevant in Slovenian law on this subject matter.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 18 It can be argued that that in this case proof of actual admixture is required. However neither the general nor the special regime set any special rules.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 19 The Act on the treatment of genetically modified organisms is silent on this question.

(d) Which are the criteria for determining the amount of compensation?

- 20 Due to insufficiency of legal practice on this subject matter it is impossible to answer this question. There are parallel or similar cases according to which conclusions could be drawn. Beside that on the treatment of genetically modified organisms does not give any answers.

(e) Is there a financial limit to liability?

- 21 There is no financial limit to liability, either in the general or in the special regime.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 22 Mandatory insurance is not prescribed by the Act. It seems that the legislator leaves the civil part of the potential damage to the parties. The party working with GMOs could insure his liability, although there is no insurance company to my knowledge in Slovenia that would cover this type of a risk.

(g) Which procedures apply to obtain redress?

- 23 The main one is the classical civil procedure which would be lead according to the general compensational scheme.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 24 Yes, article 133 of the Code of Obligations foresees injunctive relief if the applicant shows that the activity of the defendant presents an increased risk to him, a group of persons or to the environment. In this case the defendant has to remove the source of hazard or he has to restrain from further activities that cause increased risk. This claim for injunctive relief was also used in court practice (however very rarely) as an environmental class action. Therefore I would argue that this tool can be used also in cases before or after admixtures has been realized.

5. Compensation funds

Are there any compensation funds already set up or planned in your country?

- 25 Not until now. But there were some public calls that the State should prepare a compensational model similar to the US superfund system established by CERCLA.

6. Comparison to other specific liability or compensation regimes

- 26 It can be argued that the regime, if we can speak at all about a special regime according to the Act on the treatment of genetically modified organisms, is a part of the general compensation scheme set out by tort law. Damage resulting out of activities with GMOs would fall also under a product liability scheme, which is also regulated by general tort law provisions. This goes especially for the 3rd category – launch of GMO products to the market. In this case the product liability rules from the Code of Obligations could be applicable. Under this regime, the producer is liable for a hazardous product if he did not take all the appropriate measures to prevent the damage with a warning, safe packaging or some other appropriate measure.

II. General Liability or other Compensation Schemes

1. Introduction

- 27 Although Slovenian legal practice is a *tabula rasa* concerning liability for economic damage resulting from GMO presence in traditional crops, it can be foreseen that the general frame of the existing tort law provisions would apply to such cases.
- 28 The crucial legal source for the compensation scheme is the Slovenian Code of Obligations (*Obligacijski zakonik*).⁷ It came into force on January 1 2002. The New Code of Obligations is the primary legal source in Slovenia that covers tort law generally, although of course not perfectly, some special tort law provisions are to be found in special acts. The fundament principle of tort law is „*neminem laedere*”. The tort law provisions are set in the general part of the Code, precisely, 2nd Division of the Chapter nr. II (articles. 131-189). The liability arising out of contractual relations is defined in the 1st Division of the Chapter nr. III (Arts. 239-246). The fundamental issue of the liability arising out of torts is responsibility based on fault⁸ (fault liability) with reversed burden of proof. The Code of Obligations does not define the concept of „fault”. It defines, though, that „fault” exists if the tortfeasor causes the damage intentionally or negligently.⁹ Beside the fault based theory, the Code also defines a strict liability regime for operating a hazardous activity or being responsible for a dangerous/hazardous object. Beside the general scheme,

7 Official gazette of the Republic of Slovenia, nr. 83/2001, enacted on October 25 2001, according to art. 1062 entered into force on January 1st 2003. Until the then, the Yugoslav Act on Obligation Relations from the year 1978 served as the primary legal source that regulated the Law of Obligations (contracts and torts).

8 On the fundamental theoretical distinctions between „responsibility” and „liability” R. Lampe, Theoretical Aspects of Transboundary Environmental Impacts – Dilemmas imposed and Critical Review, [2001] *Regional Contact* (RC) 15, 135 *et seq.*

9 Art. 131 sec. 1 and art. 135 *Obligacijski zakonik* (Slovenian Code of Obligations, OZ).

some other provisions would also be applicable, especially the product liability regime set out in the Code. Besides that are some other acts, for example the Consumer Protection Act in connection with GMO presence in the products on the market.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 29 Slovenian tort law, like most continental legal systems, does not define or regulate causation – causality, causal link, causal connection, causal nexus *expressis verbis* in the Code of Obligations. Causation is rather a result of legal practice and legal doctrine. The dominant theory is the *conditio sine qua non* doctrine of causation.¹⁰ It can be argued that this theory would be the main one regarding the causation between the economic loss and the presence of GMOs in crops.
- 30 Due to the fact that the Slovenian Code of Obligations does not define causality or the relevant theory of causation (it only states that causality is one of the essential elements of tortious liability¹¹), legal practice addresses the issue of what the relevant theory of causality is on a case-by-case basis. Theory argues that the question whether a certain act caused another event or state which is legally recognised as damage is the crucial test of legal causation in general – this causality scheme would also be applicable in our special circumstances.¹²

(b) How is the burden of proof distributed?

- 31 The main applicable theory of liability arising out of a tort is fault based with a reversed burden of proof. So, Slovenian tort law rests on this atypical model. In this system not damage, but fault (*culpa levis*) is presumed. Beside damage, essential elements of the tortious liability, according to the Code of Obligations are: illegal act, a causal link between the illegal act and damage, and „fault responsibility” (*la faute*). If the legal action is brought because of an act based on fault, the plaintiff has to prove the illegal act, damage and the causal link between them. The defendant on the other hand has to prove that he met the required standard of the duty of care.

10 B. Strohsack, *Odškodninsko pravo*, Zbirka sodnih odločb in pregled literature (2nd ed. 1982) 114 ff.

11 131. člen (*Podlage za odgovornost*). (1) *Kdor povzroči drugemu škodo, jo je dolžan povrniti, če ne dokaže, da je škoda nastala brez njegove krivde.*

Art. 131 (Basis of liability) (1) A person, who causes damage to another one, ought to repair it, if he fails to prove that the damage was caused without his fault.

12 B. Strohsack, *Odškodninsko pravo*, Zbirka sodnih odločb in pregled literature (2nd ed. 1982) 33 ff.

(c) *How are problems of multiple causes handled by the general regime?*

- 32 The Slovenian Code of Obligations does not foresee any special rules on multiple causes. It defines liability of multiple tortfeasors in article 186. It sets that all participants are to be held jointly liable for damage if this damage was caused by multiple tortfeasors who acted together. An *ex lege* accomplice, inciter (instigator, agitator) or a person who assisted the tortfeasors is jointly liable for the damage. According to article 186, joint liability is also applicable in cases when:
- the tortfeasors acted independently of each other and their contributions to the damage cannot be exactly estimated;
 - there is no reasonable doubt that the damage was caused by at least one tortfeasor within a connected group of persons, although it cannot be determined by whom.

3. Standard of liability

(a) *In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?*

- 33 The Code of Obligations does not define the concept of „fault”. It defines, though, that „fault” exists if the tortfeasor causes the damage intentionally or negligently¹³. The secondary legal source concerning the negligence issue is the Criminal Code¹⁴, which defines both concepts. According to the Criminal Code, „intent” means that the tortfeasor was conscious about his action and wanted to execute it („direct intent” – *dolus directus*), whereas „indirect” intent (*eventualni naklep, dolus eventualis*) means that the tortfeasor was conscious that, because of his action, an illegal consequence could arise and he consented that such a consequence might arise. Beside rare decisions based on intentional fault, negligence is the other type of fault which is the *alpha and omega* of tort law. Slovenian tort law distinguishes between 3 categories of negligence which differentiate due to violation of the standard of care. The main standard of the duty of care is that of an „average, prudent person” or in Slovenian „*dober gospodar*”. This term could be translated as „prudent householder” (similar to Roman „*bonus pater familias*”). Violation of the burden of proof can be, as mentioned above, classified in *culpa levis, culpa lata* and *culpa levissima*, depending on the subjective relationship between the defendant’s behaviour towards the expected duty of care. This regime becomes stricter when professional conduct is at stake. In cases of professional duties of care, single professions set rules and standards which have to be ac-

13 Art. 131 sec. 1 and art. 135 *Obligacijski zakonik* (Slovenian Code of Obligations, OZ).

14 Official gazette of the Republic of Slovenia, no. 63/94.

completed by professionals. The abstract „pattern” is no longer that of an average prudent person, but a skilled professional in a certain profession.

- 34 As already explained, the reversed burden of proof is designed so that the defendant proves that he met all the required standards of conduct and that he consequently acted within the required duty of care. A shifted burden of proof is hence in favor of the applicant. He is not obliged to prove the actual fault of the tortfeasor (fault is namely presumed) – it is the burden of the defendant to prove that he was not at fault, so that he met the required duty of care.
- 35 Of course, it can be presumed, that this type of burden of proof would also be applicable even where there are statutory rules defining the required conduct for GMO activities. In this case the duty of care is defined in the application of the interested party, where he has to show that he meets with all the required safety standards, that he is in power of all preventive measures in case of an accident and that the used GMO will not have any damaging impact on the environment and to public health. These standards are then affirmed in the governmental permit on activities with GMOs. Subsequently, in cases when damage arises out of GMO activities, the operator will have to show that he met all the required standards and acted according to the owed duty of care. In hazardous activities like working with GMOs, administrative acts already try to prevent potential damage (therefore an interested party has to show that he meets all the required standards) therefore it is also much clearer stated what the required standards of care are. If our potential GMO operator fails to meet them, then he is liable for the damage that arose out of his activity.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, etc.)?

- 36 Strict liability, as liability for the damage caused by a dangerous/hazardous object or activity raising higher potential risk for the surroundings defined by the Code of Obligations, is regulated by the Code. It can be also regulated by special statutes.¹⁵ In a legal suit brought on the grounds of strict liability, the plaintiff has to prove that the damage is a result of a „dangerous/hazardous activity” or an activity arising out of a dangerous object. The causal link is presumed *ipso iure*. The defendant could exculpate himself by proving that the causal link between the dangerous thing and an activity does not exist. The next defenses are act of God, wrongful act of a third party and omission of the impaired person. The Code defines act of God as force majeure – an event which can not be foreseen due to the given facts.

¹⁵ Art. 131 sec. 2 and sec. 3 OZ

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 37 The issue of nuisance is regulated in Slovenian civil law by the Property code, supported by the Code of Obligations. According to legal practice both of the regimes must be used combined by solving nuisance disputes. Prohibition of „environmental nuisance” or literally prohibition of „emissions” is set in the Property code, chapter „legal relations between neighbours”. According to the relevant provision (art. 75, subs. 1), *the property owner ought to prevent any causes in the sphere of his property, that would aggravate use and enjoyment of other property „beyond such an extent” that is not customary (in a community) and to prevent any causes in the sphere of his property that (is hazardous and) could cause substantial damage.* Art. 75, subs. 2, prohibits any type of nuisance with „special devices” without special private or administrative permission. Administrative procedures for special emission permissions are set out in the Act on environmental protection and other relevant administrative laws.
- 38 In nuisance cases the defendant can exculpate himself by proving that his activity that is interfering with the use or enjoyment of other people’s property , is only to an extent which is customary in the community. For example in a rural community keeping stock or running a pig farm can not be considered as a nuisance, because such smells, violent noises etc. are customary – of course, depending on a rural community. In cases where the applicant demands removal of a potentially reasonable harmful risk, the defendant can exculpate himself and keep his activity by proving that the risk is not hazardous and can not cause substantial damage.
- 39 Therefore it can be argued that the nuisance regime is also applicable in cases where a GM crop would spread to a neighbours crop. It is well known that once GMOs are in the environment, they interbreed with „natural” crop.

4. Damage and remedies

(a) How is damage defined and measured?

- 40 The Code of Obligations defines the term „damage” as loss of property (*damnum emergens*) or prevention of an increase of property (*lucrum cessans*), bodily injury, emotional distress and fear. The Code has enlarged this „traditional” definition and defines damage also as loss of reputation of a legal entity. Most likely in the discussed study the damage would be either one of the mentioned categories or a combination of them. Pure economic loss has not been handled differently to other types of losses in our legal practice.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 41 It would be speculative to answer this question, because traditionally the applicant has to show factual damage. But perhaps there is a possibility through the new institute of damage – loss of reputation of a legal entity – for the impaired party to show for example, that he was growing organic crops for some time and customers were very satisfied with his products. Since his neighbour started with GMO crops, everyone fears that also his crop is „infected” and therefore he suffers some damage due to loss of his reputation.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 42 The answer was already touched on in the prior question. Loss of reputation of a legal entity could be presumably applicable in such a case. The crucial question is (it primary goes to the first part of the question) – what standard of proof would the court require. Due to the continuous legal practice the applicant has to prove actual damage. This means that not every loss is considered compensable. So called material loss has to be proven as *damnum emergens* or *lucrum cessans*. Loss of reputation of a legal entity on the other hand can be regarded as immaterial or personal damage. Here the applicant (in our case a farmer) would not be compensated on behalf of the actual (material) loss because of the contaminated crop, but because of the (immaterial, personal) loss of reputation.

(d) Which are the criteria for determining the amount of compensation in general?

- 43 In order to answer this question I have to sketch a hypothetical example. Let us assume that half of our applicant’s crops were contaminated. The „natural” part could be sold at market price. The price for the contaminated 50% is much less than this value. Presumably we know whose crop contaminated our farmer’s crop. The criteria according to our legislation would be that our farmer could be compensated only for the amount which is the difference between the market price of the „natural” crop and the price of the contaminated crop. It could be argued that in such a case only *damnum emergens* is the damage which can be compensated. The value in our hypothetical example was set by the market price in order to sketch the compensational basis. The value of the crop could be also defined by a private contract between our farmer and a buyer. In this case the amount of compensation would be the difference between the agreed price for „natural” crops and the decreased price for contaminated crops.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

44 There is no financial limit to liability.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

45 As mentioned in the first part, mandatory insurance is not prescribed by law.

(g) Which procedures apply to obtain redress in such cases?

46 The crucial one is of course the classical civil procedure. If the parties agree, arbitration is also a potential means for the settlement of disputes.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

47 The general compensation scheme is as already discussed in this part based either on fault liability or strict liability. Both systems include a reversed burden of proof rule. In fault liability cases the applicant has to show illegality of the defendant's act, actual damage and the causal link between them. The defender on the other hand has to prove that he acted accordingly to the required standards and that he met the duty of care imposed on him. The abstract model is a prudent person or a prudent professional. In cases of strict liability the applicant has to show actual damage and prove that the hazardous activity or hazardous object was in the defendant's control. The law presumes the causality between them. The defendant has to exculpate himself by proving that the damage was a result of a force majeure, or a result of a conduct of a third party, or as a result of contributory negligence.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

48 No, there are no special rules to my knowledge concerning costs associated with sampling and testing of GMO presence. Although there had to be. If we imagine a potential case where, for example, a consumer protection organization demands a certain product to be withdrawn from the market – presumably this product contains some GMOs. Who is going to pay the costs for sophisticated lab samplings? In my research I tried to get answer from the consumer protection alliance (NGO), governmental office for consumer protection as

well from ministries for health, the environment and agriculture. None of the mentioned institutions could provide me with a satisfactory explanation. It seems that a special regulation (sub legislative act) is being prepared which will also cover question of costs associated with samplings and testing.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 49 The costs would be barred primary by the interested party who applied for the permit. He would eventually have to show that GMOs in his product do not impose a safety risk to the environment and to public health. He can show a relevant result only through sampling and testing by an expert and independent institution. Costs for these activities are contractually set by the parties.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 50 I would presume that costs for sampling and testing could be recoverable if for example a consumer protection institution claimed that a certain product on the market includes GMO. This institution would also get relevant sampling and testing which would prove actual GMO presence. If the relevant authority – Office for Nutrition by the Ministry of Health – finds that this product presents a hazard to public health and consequently prohibits the future presence of this product on the market, then the consumer protection institution could recover the costs it spent on sampling and testing.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 51 The Act on the treatment of genetically modified organisms sets some administrative rules on cross-border issues. The ministry of the environment has, at latest, 30 days after it receives the application for the permit, to forward the summary of the application to the competent EU authority. In accordance with the Directive 2001/18/EC (article 11) a complete application has to be sent to the competent authority. In cases where the ministry receives a summary of an application for intentional release of GMOs into the environment in another Member State, it has to forward it to the ministry for agriculture and to the Board to get an expert opinion on the impact of particular GMOs. The ministry has then 30 days to prepare objections and observations to the competent EU authority. Regarding civil law, rules of international private law are applicable in cross-border impact.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 52 The Slovenian Act on International Private Law and Procedure covers the question of conflict of laws regarding tortious liability in article 30. It sets as a general rule that the law of the State where the act was committed is applicable. But, if the law is favourable for the defendant, then the law of the State where the damage occurred has to be used. So, if a legal entity performs some GMO activities in Slovenia and these activities have cross-border impact to a legal entity in Austria, then Slovenian jurisdiction demands (of course if the applicant files a civil action in Slovenia) that the applicable law is Slovenian, because the conduct was performed in Slovenia. In cases where Austrian law would be in favour of the defendant, then Austrian law would be relevant in Slovenian courts.

24. SPAIN

Miquel Martín-Casals/Albert Ruda

I. Special Liability or Compensation Regimes

1. Introduction

- 1 Under Spanish law, the legal regime on GMOs is provided by the Act 9/2003, of 25 April, on the legal regime of the confined utilization, voluntary release and commercialisation of genetically modified organisms.¹ This Act—popularly known as Biosecurity Act, hereafter GMO Act—has been developed by the Government through a so-called General Regulation which was passed in 30 January 2004.²
- 2 The statutory regime is based upon the principles of prevention and precaution. Accordingly, public authorities are required to adopt any adequate measures so as to avoid any risks and reduce possible damage to human health or the environment deriving from these activities (as provided for by Art. 1). The legal provisions establish the conditions under which activities related to GMOs have to be carried out; tax obligations derived from such activities, as well as duties of surveillance and control.³ The last Chapter of the Act (Art.

1 Ley 9/2003, de 25 abril, *de régimen jurídico de la utilización confinada, liberación voluntaria y comercialización de organismos modificados genéticamente* (BOE no. 100, 26 April 2003, p. 16214).

2 Real Decreto 178/2004, de 30 de enero, *por el que se aprueba el Reglamento general para el desarrollo y ejecución de la Ley 9/2003, de 25 abril, de régimen jurídico de la utilización confinada, liberación voluntaria y comercialización de organismos modificados genéticamente* (BOE no. 27, 31 January 2004, p. 4171).

3 For an overview of these provisions see P. R. Castro Simancas, Los organismos modificados genéticamente, [2005] *Gestión Ambiental* 7, 1-11, especially 5 et seq.; V. Manteca Valdelande, Sistema de regulación de los productos modificados genéticamente, [2006] *Noticias de la Unión Europea* (Noticias UE) 253, 19-28, in particular 24 et seq.; by the same author, La regulación de los transgénicos por la legislación alimentaria española, [2006] *La Ley* 6395, 9 January 2006; L. Mellado Ruiz, Seguridad alimentaria y alimentos transgénicos: nuevas vías de integración desde el enfoque de la gestión de riesgos, [2005] *Noticias UE* 251, 23-39, at 32 et seq.; and R. Herrera Campos/M. J. Cazorla González (eds.), *Aspectos legales de la agricultura transgénica* (2004). On the (essentially identical) previous legal regime 1994, see A. Fresno, Aspectos jurídicos y legislativos sobre transgénicos, in J. Gafo (ed.), *Aspectos científicos, jurídicos y éticos de los transgénicos* (2001), 69-84, and C. de Miguel Perales, *Derecho español del medio ambiente* (2nd. ed. 2002), 262-266. See also E. Marín Palma, Nueva regulación de organismos modificados genéticamente, [2002] *Vida*

34-38) has to do with the definition of conducts which amount to a violation of the law and sanctions applicable thereto. The last provision of the Chapter is devoted to the so-called „obligation to restore, coercive fines and subsidiary execution” (Art. 38).

- 3 According to such Article, a person who infringes the provisions of this Act is obliged to restore the state of affairs previous to the infraction, as well as to pay a sum in compensation for the damage caused. The amount of this sum is to be established by the Public Administration, without affecting the possibility that the Courts do so (Art. 38.1 1st par.). The Act lays down several criteria which have to be applied whenever damage is difficult to assess, namely, the theoretical cost of restitution and restoration, value of the damaged goods, cost of the project or activity which caused damage, and benefit derived from the infringing activity. These criteria may be applied as a whole or separately (Art. 38.1 2nd par). If the offender does not restore damage according to these provisions, the Public Administration is allowed to impose an economic fine (Art. 38.2) as well as to carry out the restoration on a subsidiary basis at the offender’s expenses (Art. 38.3).⁴ The aforementioned Regulation merely reproduces these provisions in a literal manner (Art. 64). This is in keeping with the provision of the Spanish Constitution according to which the public authorities have the duty to safeguard the rational utilization of the natural resources, with the aim of protecting and improving the quality of life as well as defending and restoring the environment (Art. 45.2). Accordingly, the Constitution adds, the legislature will establish an obligation to compensate for environmental damage (Art. 45.3).
- 4 However, neither the Act nor the Regulation grant private parties legal standing to claim compensation for damage suffered by them as a result of activities involving GMOs. Instead, a sort of public law system or mechanism is established, where only the Public Administration is entitled by this Act to proceed against the person who infringes the statutory regime. According to this approach, the main responsibility for controlling and avoiding technological risks seems to be borne mainly by the Public Administration through administrative inspections and audits.⁵
- 5 This position is in accordance with the approach generally adopted by Spanish environmental law, which usually entrusts to the Public Administration the

Rural 12, 38-40. Though, these authors pay very little attention, if any, to compensation issues.

4 Many other statutes lay down similar provisions with regard to protection of the environment. For further references see for instance M. Calvo Charro, *Sanciones medioambientales* (1999), 153.

5 See M. R. Corripio Gil-Delgado/M. del C. Fernández Díez, La evolución del marco jurídico e institucional europeo de la bioseguridad: principios y objetivos, [2005] *Noticias UE* 244, 9-26, at 21. Also, from a critical point of view, P. R. Castro Simancas (supra note 3), 11.

mission of safeguarding the environment and making the polluter pay. However, this approach entails the risk that the Public Administration adopts a passive stance with regard to damage and that its inactivity or slackness fosters further environmental degradation.⁶ Moreover, it has been criticised by some legal scholars that there is a shortage of specialised officers in the Public Administration with regard to environmental issues and that punitive administrative procedures usually have a tortuous processing which too often either end too late or give rise to derisively low sanctions—provided that they are not reversed on formality grounds by the courts.⁷ To prevent part of these problems from occurring, the Spanish Parliament has recently passed a new Act on the rights of access to information, public participation and access to justice in environmental matters,⁸ which incorporates the Convention on access to information, public participation in decision-making and access to justice in environmental matters, signed in Aarhus on 25 June 1998,⁹ into Spanish law. Pursuant to this Act, if an action or omission of the Administration infringes environmental regulations, any person will be entitled to ask for its judicial revision (Art. 3.3.b)).

- 6 As a matter of fact, there does not seem to be any case law concerning claims in tort for damage caused by GMOs. The most similar thing that the authors of this report could find are a couple of criminal decisions from minor courts relating to damage to a firm producing GMO caused by environmental activists in the course of a protest campaign.¹⁰ The activists—and „Greenpeace España”, organization of which they were members, on a subsidiary basis—were sentenced to pay compensation for damage caused to the facilities of the firm as well as for having had to stop its production. The courts rejected their argument that they were acting under a state of necessity—since, they argued, production of GM material puts biodiversity at risk and has unforeseeable effects on the ecosystems.
- 7 Interestingly, the Act does not distinguish between damage to private assets from damage to public property or other goods. The normative reference to the restoration of the state of affairs previous to damage seems rather impre-

6 As M. J. Santos Morón, *Notas a la Propuesta de Directiva sobre responsabilidad ambiental en relación con la prevención y reparación de daños ambientales*, [2002] *Gestión Ambiental* 47, 17-26, 24, rightly stresses.

7 See M. García Cobaleda, *Libro Verde sobre responsabilidad civil ambiental*, [2000] *Gestión Ambiental* 19, 14-20, 15 and 19, according to whom „the existing system of administrative sanctions is particularly inoperative”.

8 *Ley 27/2006, de 18 de Julio, por la que se regulan los derechos de acceso a la información, de participación pública y de acceso a la justicia en materia de medio ambiente* (BOE no. 171, of 18 July 2006).

9 It can be found in the website of the United Nations Economic Commission for Europe: <<http://unece.org/env/pp/treatytext.htm>>.

10 See *Sentencia de la Audiencia Provincial [SAP] Murcia, Section 5th, 3.5.2005 [JUR 2005\217705]* and *SAP Murcia, Section 5th, 10.12.2005 [JUR 2005\39086]*.

cise.¹¹ Moreover, although in theory sanctions and liability in tort are different inasmuch as they pursue different aims—punishment in one case, compensation in the other—in practice it is too often difficult to say where restoration of damaged goods finishes and economic sanctions begin.¹² Therefore, it could be questioned whether damage to private interests falls under the legal regime described or not. On the one hand, the scope of the liability regime would be seriously restricted if damage to private parties was excluded. On the other hand, in the lack of an explicit rule, claims by private parties should be the object of a private legal procedure, where the power to decide exerted by the Public Administration is out of place.¹³ As some authors have pointed out, the possibility that the Public Administration intervenes when compensation for damage to private parties is at stake could be objected to, since this would amount to an inadmissible „publicification” of relationships *inter privatos*.¹⁴ This could even amount to a violation of the Spanish Constitution (Art. 117.3), in as far as the principle of exclusivity of jurisdiction—according to which only the courts are allowed to define the content of private rights—would be ignored.¹⁵ At any rate, the statutory regime described above does not deprive private parties of the possibility of bringing a claim in tort against the person who causes damage to them.

- 8 Apart from the rules referred to above, the Spanish Government has tried to introduce a new legal regime on the so-called „coexistence”, i.e., the regulatory norm which is expected to define under which conditions genetically modified crops may coexist with non-modified ones. Initially, the Ministry of Agriculture presented two drafts,¹⁶ with the aim of providing a legal framework concerning GMO farming, but they were withdrawn after many ecologist and agricultural organizations fiercely criticized them. Among other arguments against the ministerial proposals, it was argued by its opponents that: a) the new regime would legalise transgenic pollution instead of protecting

11 Similarly, see L. Mellado Ruiz, *Derecho de la biotecnología vegetal* (2002), 339, with reference to the previous Act, but the same can be said about the present one.

12 As I. Pemán Gavín, *El sistema sancionador español* (2000), at 86, points out.

13 See E. García de Enterría/T.-R. Fernández, *Curso de Derecho administrativo*, II (9th ed. 2004), 201 and J. A. Santamaría Pastor, *Principios de Derecho administrativo*, II (3rd ed. 2002), 401.

14 See E. Cordero Lobato, La liquidación de daños entre particulares en el procedimiento administrativo, [2003] *InDret* 2, 5 <www.indret.com>; by the same author, Derecho de daños y medio ambiente, in L. Ortega Álvarez (ed.), *Lecciones de Derecho del medio ambiente* (2nd. ed. 2000), 450; see also S. González-Varas Ibáñez, *La reparación de los daños causados a la Administración* (1998), 335; J. Conde Antequera, *El deber jurídico de restauración ambiental* (2004), 85 and B. Lozano Cutanda, La responsabilidad por daños ambientales, [2005] *Justicia administrativa* 26, 5-33, 8.

15 So, J. Garberí Llobregat, *El procedimiento administrativo sancionador* (1994), 118.

16 Dated 25 February 2004 <www.tierra.org/transgenicos/pdf/Coexistencia-borrador04-02.pdf> and 14 December 2004 <www.tierra.org/transgenicos/pdf/Coexistencia-borrador04-12.pdf>.

ecological farming; therefore, it would fail to protect the right of traditional farmers not to suffer so-called „genetic pollution”, and b) no legal rules on the compensation issues were provided for. Thus, they added, the holders of an authorisation who released GMOs to the environment would not be accountable for „damage to the environment, social damage and economic damage”.¹⁷ Later, in July 2005, the Ministry of Agriculture, Fishing and Food and the Ministry of Environment jointly presented several new drafts of a Royal Decree on coexistence. Again, they established no rules on tort liability.¹⁸ The text which is presently being discussed—a draft of a Royal Decree on security fringes or coexistence between different kinds of crops, presented by both Ministries on 9 June 2006—seems to follow the same lines and also no liability in tort is foreseen. Therefore, ecologist groups and several agricultural organizations have raised their voices against it once again.¹⁹ Apparently, liability issues will be dealt with in a separate statute on seeds. In the meantime, it seems that traditional farmers affected by GMO pollution simply do not file any claims in tort although indeed serious pollution of this kind has taken place in some regions.²⁰

- 9 By contrast, liability rules could be found in a draft statute prepared by the Spanish Ministry of the Environment in 1999, under the title of bill draft of the Act on tort liability derived from activities with environmental impact. This draft was never officially published but only discussed in restricted meetings and presented to a conference on environmental law in Barcelona.²¹ It was allegedly based on the polluter-pays principle and attempted to adapt into Spanish Law the Convention of the Council of Europe on civil liability for damage resulting from activities dangerous to the environment, signed at Lugano in 21 June 1993.²² The draft laid down a strict liability rule (Art. 3.1) applicable to damage caused by any activities included in a list, among which activities of confined utilisation, voluntary release and commercialisation of GMOs were to be found (Annex, par. 6.9). Since the Ministry left aside this text after it realised that a European Community regime on environmental liability was going to be passed, this draft is not going to be analysed in this report. However, it can be underlined that damage discussed by the question-

17 See the manifesto published in the Internet by the Friends of the Earth (Amigos de la Tierra): <www.tierra.org/transgenicos/pdf/Coexistencia-criticaborrador04-05-25.pdf>.

18 It can be downloaded from: <www.tierra.org/transgenicos/pdf/Coexistencia-borrador05-07.pdf>.

19 See the piece of news published by *La Vanguardia* 24 June 2006, 36.

20 Especially in Aragon, according to information published online by the organization Greenpeace: <www.greenpeace.org>.

21 On the draft see [1996] *Información de Medio Ambiente* 46, 6-7; P. Poveda Gómez, La responsabilidad civil derivada de actividades con incidencia ambiental, [1997] *Revista de la Asociación de Derecho Ambiental Español* 1, 85-88; by the same author, La reparación de los daños ambientales mediante instrumentos de responsabilidad civil, [1998] *Información de Medio Ambiente* 68, 2-4.

22 The text can be found at <<http://conventions.coe.int/Treaty/EN/Treaties/Html/150.htm>>.

naire would be compensable according to the draft, since its definition of compensable damage was very broad. In particular, it included any damage caused to any person or public body as a result of an activity with environmental impact. Nonetheless, for liability to be established it was required that damage was caused through an „environmental element”, i.e., that the environment functioned as a transmitter means of the damaging effects of the behaviour of the liable party (Art. 2.b)).

- 10 In connection with this, there is still another text to be mentioned, namely, a bill draft prepared by the Spanish Ministry of the Environment to incorporate into Spanish law the Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage²³. Obviously, the bill draft follows the criteria set down by the Directive, which, as is well known, includes environmental damage caused by GMOs to some species and habitats, water and soil, under certain conditions (Art. 2), but does not grant private parties any right to claim compensation for the damage they suffer as a consequence of environmental influences (Art. 3.3) and allows the member states to lay down a development risk defence, which, since it could have important effects with regard to GMOs, has already been criticised by some legal scholars.²⁴ The most recent version dates from 19 October 2006 and has been approved by the Council of Ministers the day after.²⁵ Since the Economic and Social Council has already favourably assessed the text,²⁶ it is probable that the Government will bring it to the Parliament very soon. In spite of the fact that the Directive provides that its rules are a mere minimum and that the member States may go further by strengthening its provisions, the Spanish Ministry has not done so with regard to damage discussed by the present questionnaire and still implicitly leaves claims by traditional farmers outside its scope of application (Art. 5).

23 Official Journal L 143 of 30 April 2004.

24 See for instance B. Lozano Cutanda (supra note 14), 31. Also supporting liability in this cases C. Vattier Fuenzalida (supra note 29), 70.

25 The text has not yet been officially published. Copy on file of the authors. On a previous version of the bill draft, see A. Ruda, [2006] Cuadernos Civitas de Jurisprudencia Civil 71, 695-744

26 Report no. 16/2006, dated 22 November, to be downloaded from: <www.ces.es>.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned? Are there rules allocating the costs of testing or of other means to establish causation?

- 11 The GMO Act does not lay down any rule concerning causation. It actually seems to give the Public Administration much leeway, in the sense that it may establish the causal link according to what it finds appropriate and it is the liable party who can challenge this before the courts. No reference is done to testing costs either.

(b) How is the burden of proof distributed? Is there a reversed burden of proof, in the sense that the damage is presumed to be the consequence of the presence of a certain GM crop? How are the different sources of adventitious presence of GMOs (e.g. seed impurities, out-crossing with neighbouring crops, volunteers, transport, storage) being taken into account, if at all?

- 12 The GMO Act does not refer to these aspects at all. Nothing similar to a presumption of the causal link such as the one to be found in the German *Gen-technikgesetz* (§ 32) is provided for by existing Spanish law with regard to damage caused by GMOs. Though, it may be noted that legal scholarship has frequently pointed out the difficulties of proving the causal link in cases similar to the one discussed by the questionnaire and, in general, with reference to environmental torts. These difficulties are due mainly to the fact that the claimant does not know the circumstances under which the defendant is carrying out his activity. For this reason, some scholars have supported the idea that the legislature establishes a new regime on environmental torts, which includes a statutory presumption of the causal link.²⁷
- 13 Perhaps because of the influence of these authors, the bill drafted to incorporate the Directive 2004/35/EC into Spanish law lays down a presumption of the causal link. According to it, it will be rebuttably presumed that a professional activity has caused damage or the imminent threat of damage whenever this activity is appropriate to have caused it, according to its intrinsic nature or the form in which it has been carried out (Art. 3.1 2nd par.). Also the already mentioned 1999 bill draft which followed the lines of the Lugano Convention

²⁷ See among others A. Cabanillas Sánchez, La responsabilidad por inmisiones y daños ambientales, [1995] *Revista de Derecho Ambiental* 15, 31-49, 46; M. Cárcaba Fernández, Defensa civil del medio ambiente, [1999] *Revista de Derecho Urbanístico y Medio Ambiente [RDUyMA]* 171, 141-183, 173 and G. Díez-Picazo Giménez, ¿Es oportuno elaborar una ley de responsabilidad civil medioambiental?, [1998] *La Ley* 1889-1906, 1899.

included a presumption of the causal link framed according to the model of the German *Umwelthaftungsgesetz* (§ 6).²⁸

- 14 However, it must also be taken into account that the statutory regime on the civil procedure already provides for the possibility for the Judge to consider that the causal link has been proven on the basis of a presumption, i.e. a judicial presumption or *praesumptio hominis*. It is only required that a precise and direct link between the admitted or proven fact and the presumed fact exists according to the so-called rules of the human criterion (art. 386.1 of the Civil Procedure Act [LEC]).²⁹ This may make a statutory presumption an unnecessary innovation.³⁰

(c) *How are problems of multiple causes handled by the regime? Are there any specific rules for recourse between those liable?*

- 15 The GMO Act does not refer to these issues either. Therefore, general doctrines on liability as defined by other Acts on public law subjects apply. Nonetheless, it seems still unclear which regime is applicable to liability of a plurality of people who infringe public law. Although according to many statutes joint and several liability has become the applicable rule in these cases, legal scholarship points out that the situation is still somewhat confused.³¹ The solution may be eased by the application of the rule established by the Act on the legal regime of public administration and general procedure (LRJAP).³² Within the Chapter of this Act devoted to define the sanctioning authority of the Public Administration, there is a rule which, under the heading of „[l]iability”, establishes that liability under public law derived from the sanctioning procedure is compatible with the requirement that the offender restores the situation altered by him to its previous condition, as well as with the compensation for damage caused, as determined by the administrative organ in charge (Art. 130.2). Moreover, if the fulfillment of the obligations established by a legal provision concerns several people in a joint way (*conjunta-*

28 See J. Esteve Pardo, *Derecho del medio ambiente* (2005), 111.

29 Ley 1/2000, de 7 de enero, *de Enjuiciamiento Civil* (BOE no. 7, of 8 January 2000, 575-728). According to J. Esteve Pardo (supra note 28), 112, and C. Vattier Fuenzalida, La responsabilidad civil por alimentos defectuosos, in P. de Pablo Contreras/Á. Sánchez Hernández (eds.), *IX Congreso nacional de Derecho agrario. Régimen jurídico de la seguridad y calidad de la producción agraria* (2002), 59-71, 62, case law has applied such a presumption in many cases.

30 In this sense see M. J. Santos Morón, *Acerca de la tutela civil del medio ambiente: algunas reflexiones críticas*, en A. Cabanillas *et alii*, *Estudios jurídicos en homenaje al Profesor Luis Díez-Picazo*, III (2003), 3015-3037, 3020.

31 See A. Nieto, *Derecho administrativo sancionador* (2nd. ed., 1994), 372 and 376 and A. Carretero Pérez/A. Carretero Sánchez, *Derecho administrativo sancionador* (2nd. ed. 1995), 152.

32 Ley 30/1992, de 26 de noviembre, *de régimen jurídico de las Administraciones Públicas y del procedimiento administrativo común* (BOE no. 285, of 27 November 1992).

mente), they will be solidarily, i.e. jointly and severally liable (Art. 130.3). The provision seems applicable whenever the plurality of persons infringes the law together, i.e., in a joint way.³³ However, legal scholarship suggests that it is doubtful that joint and several liability applies in such a broad range of instances.³⁴ Finally, the possibility that one of the liable persons recoups internally from the others is not explicitly established by the Act but derives from the general rules on joint and several liability as provided for by the Spanish Civil Code (Art. 1145).

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 16 The GMO Act does not make any reference to fault as a condition for tort liability to be established. However, fault is a condition for the imposition of the sanctions corresponding to the administrative infractions defined by the Act. In these cases, the standard of care is defined with reference to the personal circumstances of each person, such as the fact whether this person has a skill or enjoys an education that are over-average; the environment where he lives; the degree of proximity to the illicit act regarding its usual activities, and, above all, his occupation.³⁵ Certainly, the conditions for the application of the rules imposing sanctions are not necessarily the same as the conditions that must be met in order to give rise to the duty to restore the damage established by the Act. However, legal scholars seem to leave in the dark the question whether fault is required or not to give rise to the duty to restore the damage established in the GMO Act and other public law Acts³⁶. In any case, it could seem paradoxical to require fault as a condition for the duty to restore established under the GMO Act to arise whereas under the general rules of tort liability—as will be explained below— fault may not be required. The legal regime on liability according to public law may still be considered unclear due to the ambiguity of the existing provisions.³⁷

33 So A. Nieto (supra note 31), 377.

34 E. García de Enterría/T.-R. Fernández (supra note 13), 180, even suggest that the rule may infringe the Constitution. Though, the liability of a plurality of public administrations is joint and several. See J. Esteve Pardo (supra note 28), 102.

35 For further details see A. Nieto (supra note 31), 347-348. See also C. de Miguel Perales (supra note 3), 271.

36 See for instance E. García de Enterría/T.-R. Fernández (supra note 13), 200 et seq.

37 In this sense see J. A. Santamaría Pastor (supra note 13), 401.

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 17 The GMO Act does not deal with defences to liability. It may be assumed that general doctrines on defences, such as *force majeure*, intervention of a third party and contributory negligence apply.

(c) If it is no liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

- 18 The existing mechanism has been described above.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 19 See above for the answer to question (b).

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 20 The mechanism of liability relating to the duty to restore laid down by public law statutes such as the GMO Act does not affect the possibility of a private victim bringing a claim before a private law court. As a matter of fact, several liability regimes may concur in a single case. Therefore, in the case dealt with by the questionnaire, traditional farmers may both ask the Public Administration to intervene against the person who infringes the provisions of the GMO Act and ask for compensation for any damage they suffer as a result of the admixture of GM and non-GM crops before a court of justice, simultaneously or subsequently. The administrative sanctions established by this Act do not affect either liability in tort or criminal liability.³⁸

- 21 With regard to the bill draft for implementing the Directive 2004/35/EC into Spanish law, a novelty is that it explicitly establishes that its provisions leave the rights of the private parties suffering environmental damage unaffected (Art. 4.1) and tries to prevent a double recovery from occurring (in line with what the Directive itself had already suggested, Art. 16.2). With this aim, it establishes that the affected parties will not be able to bring a claim for compensation for damage inasmuch as this damage has already been compensated according to the provisions of the Act (Art. 4.2 1st part). If the liable party has had to pay compensation twice, he will be entitled to claim the compensation back from the victim (Art. 4.2 2nd part). Moreover, claims by private parties will not affect, the draft text adds, the effectiveness of the preventive or resto-

³⁸ See J. M. Mora Sánchez, *Biotechnología vegetal: un enfoque legal*, in E. Iáñez Pareja (ed.), *Plantas transgénicas: de la Ciencia al Derecho* (2002), 193-244, 231.

ration measures adopted according to its provisions as well as any administrative procedures or any other administrative measures aiming at prevention or restoration of damage (Art. 4.3).

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

- 22 As has been shown, the existing legal regime does not cover damage by traditional farmers and does not handle pure economic loss differently to other kinds of damage either.
- 23 As a matter of fact, Spanish tort law is neither familiar with a separate category of „pure economic loss”, nor does the concept itself appear in Spanish legal writing dealing with tort law. The concept of pure economic loss itself and its assumptions are alien to the Spanish approach to tort law and there is no prima facie limitation on the nature or on the scope of the protected rights or interests. Therefore, Spanish courts resort to other legal devices in order to keep the floodgates shut. These are usually related to the element „damage”, in the sense that damage suffered by the victim has to be certain and sufficiently proved, or the element „causation”, in the sense that the causal link between the conduct of the tortfeasor and the resulting damage has to be established.³⁹ In most cases where in other legal systems it is affirmed that there should not be compensation for pure economic loss Spanish courts consider that damage or causation have not been established.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 24 None of these issues are dealt with in an explicit manner by the GMO Act. As for general rules, see below.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 25 The GMO Act merely refers to damage, without defining it. As has been explained, it has to be understood that only damage to property belonging to the Public Administration are covered by the statutory regime, inasmuch as damage to private interests is governed by tort liability rules described below.

³⁹ See M. Martín-Casals/J. Ribot, Spain, in W. H. van Boom/H. Koziol/Ch. A. Witting (ed.), *Pure Economic Loss* (2004), 62-76, in particular 62-63.

(d) Which are the criteria for determining the amount of compensation?

- 26 The GMO Act provides for several criteria to assess damage economically whenever damage is difficult to assess, namely, the theoretical cost of restitution and restoration, value of the damaged goods, cost of the project or activity which caused damage, and benefit derived from the infringing activity (Art. 38.1 2nd par).
- 27 This is also not an original legal regime, since the criteria at stake are the same, usually referred to by other statutes which lay down a similar duty to restore damage. In general terms, it may be very difficult to establish the parameters needed to apply these criteria, such as the benefit obtained by the liable party. For this reason, and due to the lack of a more detailed legal regime, the Public Administration has often tried to deprive the liable party from any possible benefit deriving from the infringing activity by increasing the amount of the economic fine corresponding to the statutory violation. As some authors put it, the fine functions in these cases as a sort of compensation, so in a certain sense it has the archaic flavour of a composition or taxation of damage, according to the model of the ancient Germanic law.⁴⁰
- 28 Apart from this, it is usually sufficient that the Public Administration follows a technical criterion when assessing damage and that it provides an explanation for the reasons upon which its decision is based. As legal scholarship has observed, the assessment of damage is discretionary, although this must not be necessarily understood as arbitrary.⁴¹ Of course, the liable person may well disagree with the assessment done by the Public Administration, and the general legal rules on administrative procedure grant him the possibility to challenge it before the administrative courts.⁴²

(e) Is there a financial limit to liability?

- 29 No.

40 See E. García de Enterría/T.-R. Fernández (supra note 13), 200-201. It has also been suggested that this difficulties may discourage the Administration from using the means provided for by the statutory regime. See J. Esteve Pardo (supra note 28), 54.

41 See F. Delgado Piqueras, *Derecho de aguas y medio ambiente* (1992), 247; D. J. Vera Jurado, *La disciplina ambiental de las actividades industriales* (1994), 204; J. Jordano Fraga, La responsabilidad por daños ambientales: Los daños ambientales son la lesión del derecho subjetivo a disfrutar de un medio ambiente adecuado, in CIMA (ed.), *I Congreso Nacional de Derecho Ambiental. Sevilla, Abril 1995* (1996), 463-472, 466-467; by the same author, *La protección del derecho a un medio ambiente adecuado* (1995), 514-515.

42 See J. Garberí Llobregat (supra note 15), 119.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

30 In both cases the answer is no.

(g) Which procedures apply to obtain redress?

31 According to the nature of the liability mechanism provided by the GMO Act, the procedure is an administrative one, which is governed by the general rules of the law on the legal regime of public administration and general procedure (in particular, Art. 130 LRJAP). The obligation to restore damage may be established in the same administrative decision which imposes a sanction upon the offender for the infringement of the statutory provisions or in a separate administrative decision. The sanction and the duty to compensate are compatible and it is usually pointed out that the principle of *ne bis in idem* is not violated by the mere fact that the liable party is forced to compensate for the damage in addition to pay a fine or whatever sanction he receives.⁴³

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

32 The GMO Act establishes that after a sanctioning administrative procedure has started, the Public Administration in charge will be entitled to adopt any of the following provisional measures: a) the provisional, total or partial closure, suspension or stoppage of the facilities; b) the provisional suspension of the authorisation to carry out the activity; the immobilisation of the GMO or the products which contain them, and finally d) any other measures aiming at the correction, security or control which prevent the production of damage from continuing (Art. 37).

5. Compensation funds

33 There is no compensation fund yet. The only compensation fund now in operation is the *Consortio de Compensación de Seguros*, an autonomous entity under the supervision of the Ministry of Economy and Finances, which has to compensate for personal injury and property damage in certain cases where compensation cannot be achieved by ordinary means. Its intervention is only envisaged within the framework of certain compulsory insurance imposed by

43 See J. A. Santamaría Pastor (supra note 13), 401.

strict liability acts, such as the one referred to liability for damage caused by motor accidents.⁴⁴

6. Comparison to other specific liability or compensation regimes

- 34 The legal regime provided for by the GMO Act is hardly comparable to the regime existing on damage caused by products liability. They not only differ in the degree of detail, the most detailed one being that provided by the Products Liability Act (LRPD),⁴⁵ but they also belong to different kinds of mechanisms: whereas in the first case it is the Public Administration which is entitled to intervene in the presence of a violation of the law, the legal regime on products liability provides private parties a right to bring a claim in tort before a court of justice. It is therefore not possible to say whether GMO Act is an exception or not: it simply opts for a different model due to the fact that damage covered is damage to the interests of the Public Administration, as explained above.

II. General Liability or other Compensation Schemes

1. Introduction

Please describe how the general liability rules (would) apply to cases of economic damage resulting from GMO presence in traditional crops.

- 35 In the absence of a specific legal regime covering claims from private parties because of economic damage resulting from GMO presence in traditional crops, the general regime of liability established by the Spanish Civil Code would be applicable. This comprises, on the one hand, the general rule of liability based on fault (Art. 1902) and, on the other hand, different rules regarding several instances of damage governed by strict liability rules.
- 36 As for fault liability, Spanish tort law starts from fault as the basic requirement for establishing liability. According to Art. 1902 CC, „the person who by action or omission causes damage to another by fault or negligence is obliged to repair the damage caused”.⁴⁶ However, as has been said, cases of strict liability are also found in the Code.
- 37 As regards strict liability, the possibility of applying the strict liability rule pursuant to Art. 1905 CC could be considered if a genetically modified animal

44 See M. Martín-Casals/J. Ribot/J. Solé, Compensation for Personal Injury in Spain, in B.A. Koch/H. Koziol (eds.), *Compensation for Personal Injury in a Comparative Perspective* (2003), 238-292, 254.

45 Ley 22/1994, de 6 de julio, de *Responsabilidad civil por daños causados por productos defectuosos* (BOE no. 161, of 7 July 1994).

46 See M. Martín-Casals/J. Ribot/J. Solé (supra note 44), 242.

has caused the damage. According to this provision, the possessor of an animal or the person who is making use of it is liable for damage caused by it, even where it has escaped or got lost. Liability will cease only if the damage derives from *force majeure* or fault of the victim. This liability rule does not distinguish between domestic and non-domestic animals and embraces all animals as long as they can be an object of possession.⁴⁷ However, some authors consider that damage caused by organisms such as bacilli, whose energy is not important enough with regard to the risk they cause, should fall outside of the scope of the rule. Moreover, they argue, nobody would say that bacilli are animals in the sense of this provision⁴⁸ and probably not even in a modern scientific sense. Leaving bacilli aside, it seems that even very small animals may be a source of significant damage. Certainly, no liability claims for damage caused by GMOs seem to have been based on Art. 1905 CC to date. With regard to crops, damage is typically caused by non-GMO animals—such as sheep or horses—which unduly pasture crops belonging to the victim.⁴⁹ However, in theory nothing prevents the liability rule laid down by Art. 1905 CC from being applied to damage caused by genetically modified animals in other instances as well.⁵⁰

- 38 Another possibility consists in framing a claim under Art. 1908 of the Civil Code. This provision provides for several rules of liability, some of which are related to the kind of damage discussed by the questionnaire. In particular, Art. 1908.1 and 4 CC refer to damage caused by industrial facilities and activities potentially dangerous or noxious. As regards the later provision, it establishes a liability rule of the owner for leaks of sewers or deposits of infecting substances „which have been built without the precautions that were adequate for the place where they were located”. The peculiarity of this rule, in contrast to the general rule laid down by Art. 1902 CC, is that, according to legal scholarship, this provision establishes fault liability, but fault is presumed because of the risk that has been created. Therefore, it is added, the burden of proof of fault is shifted to the owner.⁵¹ Also Art. 1908.2 covers damage caused by excessive fumes which affect persons or property. In this case, liability does not require fault. It is well-established in case law that this

47 See M. Martín-Casals/J. Ribot/J. Solé, Spain, in B.A. Koch/H. Koziol (ed.), *Unification of Tort Law: Strict Liability* (2002), 298, and I. Gallego Domínguez, *Responsabilidad civil extracontractual por daños causados por animales* (1997), 25, with further references.

48 See the annotations by B. Pérez González/J. Alguer to the translation of the book by L. Ennecerus/H. Lehmann, *Derecho de obligaciones*, Vol. 2nd, 2nd part (3rd. ed. 1966), 1186.

49 For further references see C. Trabado Álvarez, *La responsabilidad civil del artículo 1905 del CC* (2001), 125 and I. Gallego Domínguez (supra note 47), 115 note 226.

50 In this sense A. Ruda González, *El daño ecológico puro. La responsabilidad civil por el deterioro del medio ambiente*, Doctoral Thesis (2005), 278 <www.tesisenxarxa.net>.

51 See M. Martín-Casals/J. Ribot/J. Solé (supra note 47), 286, with further references.

rule lays down a strict liability rule, this being an interpretation which is shared by most legal scholars.⁵²

- 39 Moreover, Art 1908 is constructed in a very broad way by legal scholarship. First, because it is interpreted that persons other than the „owner” may also be held liable. This is the case, for instance, of the entrepreneur who carries out his entrepreneurial activity in facilities which cause harm to the victim.⁵³ Second, and more interestingly, this article has been understood as a sort of limited general clause which may be extended so as to be the basis of liability for damage caused in ways different to those referred to literally by the text of the provision. For instance, it has been the basis for liability for damage caused by noise⁵⁴ and electromagnetic radiation,⁵⁵ as well as damage caused by vibrations and even other solid or liquid bodies.⁵⁶ This construction has been supported by the Spanish Supreme Court, according to which Art. 1908.4 CC can be interpreted in a broad way, so as to include any kind of perturbation and aggression to the environment (STS [*Sentencia del Tribunal Supremo*] 14.3.2005 [RJ 2005/2236]). This has an important consequence, since, as this decision points out, liability for nuisance has become strict under Spanish law for this reason.⁵⁷
- 40 It may also be questioned whether damage as described by the questionnaire could be recoverable according to the special legal regime on products liability (LRPD). Obviously, the conditions laid down by such a regime should be met. In particular, it has to be taken into account that economic damage deriving from the presence of GMO in traditional agricultural products, as described by the questionnaire, will fall out of the scope of application of the special liability regime laid down by the Products Liability Act. Indeed, damage to goods used for carrying out an entrepreneurial or professional activity is not covered by the special liability regime, but only damage to things for
- 52 So, for instance, L. Díez-Picazo/A. Gullón Ballesteros, *Sistema de Derecho civil II* (9th ed. 2002), 572 and M. del C. Sánchez-Friera González, *La responsabilidad civil del empresario por deterioro del medio ambiente* (1994), 74.
- 53 See A. Hernández Gil, Las relaciones de vecindad en el Código Civil, in his *Obras completas*, IV (1989), 89-173, 167 and E. Algarra Prats, Responsabilidad civil por daños causados por inmisiones en el Código Civil español y la protección frente a humos, ruidos, olores y similares perturbaciones entre vecinos, in J. A. Moreno Martínez (ed.), *Perfiles de la responsabilidad civil en el nuevo milenio* (2000), 637-644, 642.
- 54 SAP Valencia, Section 7, 26.3.2004 [*Ar. Civ.* 2004/890].
- 55 SAP Alicante Section. 4, 15.3.2002 [JUR 2002/140080]; SAP Segovia 28.5.1993 [*Ar. Civ.* 1993/957] and SAP Granada, Section 1, 8.2.1990 [RGD 1991, 8447-8451].
- 56 SAP Baleares, Section 5, 21.2.2005 [JUR 2005/118262]. In legal scholarship, see among others C. Auger Liñán, Problemática de la responsabilidad civil en materia ambiental, *Poder Judicial* special no., 1988 no. IV, *Jornadas sobre el Medio ambiente*, 111-123, 116 and M. Alonso Pérez, Las relaciones de vecindad, *ADC* 1983-I, 357-396, 389 note 69.
- 57 See among others C. de Miguel Perales (supra note 3), 357 and M. Calvo Charro (supra note 4), 111.

private use or consumption is (Art. 10.1 LRPD). As a result of this restriction, it seems that most instances of damage to crops caused by products liability will be excluded from this regime.⁵⁸

- 41 Moreover, liability according to the Products Liability Act will be excluded in all the cases where one of the defences of liability it provides becomes applicable, such as, in particular, that the producer did not put the product into circulation (as laid down by Art. 6.1.a) LRPD). If the admixture of GM crops and traditional crops did not result from commercialisation of GMO, but rather from the process of production itself—for instance, because of the proximity of GM crops—it cannot be said that the producer put the product into circulation in the legal sense. The reason is that he has not voluntarily transferred possession of the GMO with the aim of introducing the product in the channels of distribution or, in general terms, of commercialising the product.⁵⁹ Also there are other persons different from the producer whose conduct may have an influence on the causation of damage, such as the farmer, but the Products Liability Act does not make any reference thereto.⁶⁰ Finally, it seems doubtful whether a GM crop can be considered defective in a legal sense (Art. 3 LRPD) on the mere basis that it may produce an admixture of GM and traditional crops. Leaving aside that it is not enough for excluding liability that the transformation of an agricultural product has not been the cause of the defect,⁶¹ a GMO product may as a matter of fact present the safety which may be rightfully expected from it and still be defective. The mere fact that it is dangerous, in the sense that it may cause economic damage to traditional farmers, does not necessarily mean that the product is defective, since GMOs may be inevitably or intrinsically dangerous, which would exclude the applicability of the Products Liability Act.⁶²

58 See S. Rodríguez Llamas, *Régimen de responsabilidad civil por productos defectuosos* (2nd. ed. 2002), 189, with references to previous case law. See also the case analysed by P. Gutiérrez Santiago, *Responsabilidad civil por productos defectuosos. Cuestiones prácticas* (2004), 79-80, where the court refused to grant compensation for damage caused to crops by defective seed.

59 On this interpretation of the expression „put into circulation” see J. Solé Feliu, *El concepto de defecto de producto en la responsabilidad civil del fabricante* (1997), 263 et seq. and M. Martín-Casals/J. Solé Feliu, *La responsabilidad por productos defectuosos: Un intento de armonización a través de directivas*, in S. Cámara Lapuente (ed.), *Derecho Privado europeo* (2003), 921-948 at 923. It is also adopted by M. Ruiz Muñoz, *Derecho europeo de la responsabilidad civil del fabricante* (2004), 60.

60 See L. Amat Escandell/D. Llombart Bosch, *La defensa de los consumidores y la responsabilidad civil por productos alimentarios defectuosos*, in P. de Pablo Contreras/Á. Sánchez Hernández (supra note 29), 125-132, 131.

61 As D. Jiménez Liébana, *Responsabilidad civil: daños causados por productos defectuosos* (1998), 218, has correctly pointed out.

62 See again J. Solé Feliu (supra note 59), 383 et seq. and, following his interpretation, P. Gutiérrez Santiago (supra note 58), 83-84.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 42 A causal link between the conduct of the defendant and the resulting damage is clearly a condition for liability to be established in tort under Spanish law. However, this is one of the conditions of liability which has given rise to more disagreement in legal scholarship.
- 43 Over recent years, Spanish scholars have emphasised the need to draw a distinction between causation understood as a question of fact and legal causation. It thereby tries to overcome the difficulties which the application of the equivalence of conditions or equivalence theory (causation in fact) gives rise to. Following German legal doctrine, some Spanish legal scholars suggest a correction of this theory by introducing criteria which would allow for greater precision in indicating which events causally linked to the behaviour of the defendant—from the point of view of the equivalence theory—can be legally imputed to him (i.e., causation as a question of law or objective imputation [*objektive Zurechnung*]).⁶³
- 44 Among these criteria, the most salient one, and the most referred to by Spanish courts, is adequate causation. According to this criterion, the behaviour of a person is the cause of damage if it is apt in general to cause a result such as the one it has produced or increased in a significant way the risk that damage might occur. Therefore, it is not possible to attribute in an objective way a particular damaging event to the behaviour of the defendant when the production of such an event would have been discarded, as extraordinarily improbable, by an experienced observer.⁶⁴ As case law has put it, establishing the causal link according to the theory of adequacy requires an assessment of „whether the conduct of the defendant is appropriate for bringing about a certain and specific result”.⁶⁵ So, for instance, the fact there is a flux and filtration of liquid waste from the pond of the defendant is considered an adequate cause of damage suffered by the victim due to the pollution of his fresh water well (STS 11.10.1994 [RJ 1994\7478]). Therefore, the claimant farmers would have to prove that the damage they suffered is an adequate consequence of the behaviour of the defendant.

63 See F. Pantaleón Prieto, Causalidad e imputación objetiva: criterios de imputación, in Asociación de Profesores de Derecho Civil (ed.), *Centenario del Código Civil*, II (1990), 1561-1591, 1561 et seq.

64 See F. Pantaleón Prieto (supra note 63), 1563 and E. Roca Trias, *Derecho de daños* (4th ed. 2003), 155.

65 Among others, STS 8.7.1998 [RJ 1998\5544], 9.10.1999 [RJ 1999\7245] and 25.2.2000 [RJ 2000\1017]).

(b) How is the burden of proof distributed?

- 45 The burden of proof of the causal link rests on the claimant and courts do not reverse the burden of proof in this area. Such a general inversion of the burden of proof would be against the provisions of the Civil Procedure Act, which follow the well-known criterion that *incumbit probatio ei qui dicit, non ei qui negat* (Art. 217.2 and 3 LEC) as a general rule.⁶⁶
- 46 Nevertheless, it has to be taken into account that this Act has introduced an interesting innovation in this area. It allows the Judge to shift the burden of proof in a particular case whenever the defendant may prove the absence of causal link more easily than would the claimant prove its existence, inasmuch as the defendant is nearer to what some legal scholars call the source of proof (Art. 217.6 LEC). It seems, however, that the Spanish Supreme Court has not had the occasion to apply this rule yet.⁶⁷ Anyway, it would perhaps be difficult to apply it in cases of damage caused by GMO, since the rule starts from the idea that proof is easier for the defendant than it is for the victim. It may happen that the cause of damage is equally uncertain for both parties, as none of them is able to explain how damage was exactly caused. Probably the courts would require, for the burden of proof to be shifted, some kind of piece of circumstantial evidence showing that the defendant caused damage. So, for instance, a decision from a Court of Appeal rejected to reverse the burden of proof of the causal link because the claimant had not brought any evidence showing that the defendant caused damage to him through, for instance, acid rain (SAP Barcelona, Section 13th, 6.9.2004 [JUR 2004\307091]).

(c) How are problems of multiple causes handled by the general regime?

- 47 When damage has been caused by a plurality of tortfeasors, Spanish courts usually follow the rule that if there is not enough evidence to enable them to identify the specific respective share of liability of each tortfeasor all of them are held jointly and severally liable (among many, STS 21.6.1999 [RJ 1999\4889] and 11.4.2000 [RJ 2000\2148]). The joint and several liability rule applies also, without any hesitation, in the case of accumulative causal courses (or „concurrent”, in the terminology of the Spanish Supreme Court), i.e., those cases in which „two causal courses of different origin contribute simultaneously to the production of the damaging event when any of the two would have been sufficient to produce it with the same characteristics and in the same circumstances” (STS 18.6.1998 [RJ 1998\5066] and 7.11.2000 [RJ 2000\9911]).

⁶⁶ See against such an inversion A. Cabanillas Sánchez, *La reparación de los daños al medio ambiente* (1996), 178.

⁶⁷ See on this issue G. Ormazábal Sánchez, *Carga de la prueba y sociedad de riesgo* (2005), 23 and 35-38.

- 48 Actually, joint and several liability seems to have become the general rule whenever damage is caused by a plurality of tortfeasors.⁶⁸ Indeed, special legislation in the field of tort law usually establishes that liability of a plurality of tortfeasors will be joint and several⁶⁹ and this is also the rule laid down by the Criminal Code [CP],⁷⁰ which regulates liability in tort derived from crime separately from the Civil Code (Arts. 116.2 and 212 CP). Pursuant to art. 116.2 CP, „if two or more persons are responsible for a crime or a misdemeanour, the Judge or the Court will establish the share of liability that corresponds to each of them” and once this has been established, and according to the second subsection of this provision, „the authors and the accomplices, each of them within his respective group, will be jointly and severally liable among them for their respective shares, and subsidiarily liable for the shares corresponding to the other persons held responsible”. However, some legal scholars have criticised that joint and several liability is applied in situations where the tortfeasors may have contributed in a very different degree to cause damage.⁷¹
- 49 In spite of this, some scholars consider that joint and several liability in the case of indeterminate defendants could also be based as a matter of principle on those special provisions.⁷² In fact, Spanish tort law lacks a general regime on the issue posed by the indeterminate defendant or alternative causation situation, where damage is caused by an undefined member of a group. Because of this, case law has played a major role in developing this field of the law. It is mainly in this field that the doctrine of „improper joint and several liability” has developed, purporting the application of joint and several liability whenever it is uncertain the degree to which several tortfeasors contributed to damage, as already explained. Specific tort law statutes do not usually refer to this situation either, nor does the Civil Code. Nevertheless, one may find a very clear rule in art. 33.5, 2nd part of the Spanish Hunting Act,⁷³ pursuant to which „in the case of hunting with weapons, if the author of the personal injury is not known, all members of the hunting party shall be jointly and sever-

68 For further detail see M. Martín-Casals/J. Solé, Multiple Tortfeasors under Spanish Law, in W. V. H. Rogers (ed.), *Unification of Tort Law: Multiple Tortfeasors* (2004), 189-213.

69 For instance see Art. 27.2 of the Ley 26/1984, de 19 de julio, *general para la defensa de los consumidores y usuarios*, (Consumers Act [LGDCU], BOE no. 175 and 176, 24 July 1984) and art. 7 LRPD.

70 Ley Orgánica 10/1995, de 23 de noviembre, *del Código Penal* (BOE no. 281, of 24 November 1995).

71 See for instance, with reference to food security, G. de Castro Vitores, *Tendencias actuales en material de seguridad alimentaria, y su repercusión en obligaciones y responsabilidades*, P. de Pablo Contreras/Á. Sánchez Hernández (supra note 29), 179-188, 187.

72 See L. Díez-Picazo Ponce de León, *Derecho de daños* (1999), 167 and F. Peña López, in R. Bercovitz (ed.), *Comentarios al Código Civil* (2001), 2124.

73 Ley 1/1970, de 4 de abril, *de caza* (BOE no. 82, of 6 April 1970).

ally liable.” Without quoting it, a similar tenet has been applied in a nuisance law case, where both the installation owner and the technician in charge of an industrial facility were held jointly and severally liable for the excessive emission of gas and dust which had caused harm to the neighbouring property (STS 15.3.1993 [RJ 1993\2284]). Nevertheless, the legal basis for this solution still remains uncertain, because it does not seem possible to construe the rule established by the Hunting Act so as to include so different a case as damage caused by nuisance and at any rate that Act lays down a strict liability regime which cannot be extended by way of an analogical interpretation.⁷⁴

- 50 Lately, the Supreme Court has rejected a claim based on what the Court calls „hypothetical alternative causation” because the claimant had not proved that one of the defendants had caused the damage, which was the result of fire of unknown origin (STS 26.11.2003 [RJ 2003\8354]). Although technical concepts are used by the decision in a non-technical way, the Court is right in that none of the defendants had been proved to behave wrongfully.⁷⁵ Therefore, it seems that as a rule there is liability of each of the members of the group when one of its members caused the damage, provided that the claimant proves that damage was caused by one of them. Other more innovative approaches such as market share liability or pollution share liability are ignored by Courts and rejected by legal scholars, who find them difficult to reconcile with the principles of Spanish tort law and to apply in any particular case.⁷⁶
- 51 As regards channelling of liability, it has already been explained that there is no specific liability regime concerning environmental damage but courts have resorted to Art. 1908 CC to cope with problems derived from nuisance. Also, the liable party may be the „owner”, as explicitly referred to by the provision, but this term can be construed in a broad way. Therefore, there is no channelling of liability upon the operator or license holder under this provision. As regards Art. 1902 CC, any person who causes damage in a negligent way is obliged to compensate it, with no restrictions.

74 See A. Ruda, Spanish case note, [2004] *European Review of Private Law* 2, 245-258, with further references.

75 See the comment on this decision by M. Martín Casals/A. Ruda, [2004] *Cuadernos Civitas de Jurisprudencia Civil* 65, 843-859.

76 So for instance A. Ruda, *La responsabilidad por cuota de mercado a juicio*, [2003] *Indret* 3, <www.indret.com> Working Paper no. 147, 13 et seq. See a different opinion by C. Vattier Fuenzalida (supra note 29), 67.

3. Standard of liability

(a) *In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?*

- 52 Since the Spanish Civil Code does not provide any definition of fault nor establishes what its conditions are, Spanish legal scholarship agrees that Art. 1104 CC, referring to fault as a factor of imputation for breach of a contract, also applies to fault liability in tort.⁷⁷ Accordingly, it is generally stated that fault amounts to a negligent, careless, improvident way.⁷⁸ Foreseeability of the result is the main and most characteristic element of fault, which is connected in a direct way with a different element, the standard of care, which makes the assessment of fault possible. A person who does not foresee something which he or she has the duty to foresee or, having foreseen it, does not take the appropriate steps to avoid it is negligent.⁷⁹ A precondition of foreseeability and the standard of care is the tortious capacity of the tortfeasor. He must be capable of committing fault (*capaz de culpa civil*), which implies that, at least, he must possess the capacity to understand what damaging others means.⁸⁰
- 53 Fault as a condition of liability will not pose any serious problems to traditional farmers, as the decisions of the Spanish courts have evolved to what has been called an „objectivization” of fault liability. This process, initiated in the 1950s, has used several technical devices such as: a) requiring a higher standard of care in certain activities; b) extending the scope of fault to embrace also the slightest negligence (*in lege Aquilia et culpa levissima venit*); c) considering that compliance with administrative regulations is not sufficient to show the standard of care required, or d) reversing systematically—and with only a few exceptions, such as in the area of medical malpractice—the burden of proof.⁸¹ In this context, the mere fact that there are clearly established statutory rules defining the required conduct for GMO agriculture does not seem decisive.

77 See M. Martín-Casals/J. Solé Feliu, Fault under Spanish Law, in P. Widmer (ed.), *Unification of Tort Law: Fault* (2005), 227-264, 237, with further references.

78 F. Rivero Hernández, in J. L. Lacruz Berdejo et al., *Elementos de Derecho civil*, II-2 (3rd ed. 2005), 447-448.

79 See F. Rivero Hernández (supra note 78), 448 and M. Martín-Casals/J. Solé Feliu (supra note 77), 238.

80 For further details see M. Martín-Casals/J. Ribot/J. Solé (supra note 44), 243.

81 See M. Martín-Casals/J. Solé Feliu (supra note 77), 228 et seq.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, etc.)?

- 54 Legal scholarship speaks about strict rather than absolute liability, in situations where the defendant is liable without fault for the mere causation of damage, but he still has some possibility of escaping liability if he proves the occurrence of some circumstance. So, Art. 1905 CC admits the possibility that the possessor of an animal escapes liability when damage is attributable to *force majeure* or fault of the victim. Art. 1908.2 CC refers to damage caused by noxious fumes and, although it is not expressly mentioned, it is interpreted that it also admits *force majeure* as a cause of exoneration.⁸²
- 55 Under Spanish law, there is no general clause of strict liability for damage caused by things or by activities that are especially hazardous. Only very isolated *obiter dicta* of some decisions—which have not been followed by the courts—have stated that the idea of risk could lead to strict liability even when not established in an explicit way by the legislature. Courts have not carried out an analogical application of strict liability either, although in practice carry out an extensive construction of the elements of fact of some provisions imposing strict liability, such as Art. 1908.2 CC.⁸³

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 56 Apart from Art. 1908 CC, which has already been referred to, there is no general legal regime on nuisance law applicable to all the territories of Spain. As a matter of fact, case law has construed a general doctrine of liability for damage resulting from nuisance starting from that provision and Art. 590 CC on the relationships of neighbourhood. Pursuant to Art. 590 CC, in the lack of regulations, every person has to adopt all necessary precautions to avoid any damage to the neighbouring estates or buildings. According to legal scholarship, the provision aims at establishing a prohibition to propagate substances harmful or dangerous for the neighbouring pieces of land.⁸⁴
- 57 By contrast, regional law provides for several legal regimes on nuisance, in particular in Catalonia and Navarra. Catalan law has just been reformed after the Catalan Parliament has passed the Book V of the Catalan Civil Code

⁸² So M. Martín-Casals/J. Ribot/J. Solé (supra note 47), 287.

⁸³ See M. Martín-Casals/J. Ribot/J. Solé (supra note 44), 251.

⁸⁴ See N. Álvarez Lata, El daño ambiental. Presente y futuro de su reparación (II), [2002] *Revista de Derecho Privado*, 865-888, 865, with further references.

[CCC].⁸⁵ The Code relies upon the legal regime previously existing, i.e., the Nuisance Act [LANISRV].⁸⁶ This Act not only provided a legal regime of injunctive relief (*acció de cessació*) but also of a claim for compensation (*acció d'indemnització*, Art. 2.2) which legal scholarship has considered as being independent from the general clause of Art. 1902 of the Spanish Civil Code and therefore not requiring fault on the side of the defendant. Moreover, the limitation period is longer under the Catalan Act (3 years, pursuant to Art. 546-14.7 CCC)⁸⁷ than under the Spanish Civil Code (1 year, pursuant to Arts. 1902 and 1968.2 CC).⁸⁸

- 58 The Catalan Civil Code does not define what amounts to nuisance, but merely lays down its effects from a legal point of view. The previous Act did not do it either, but this had been criticised by legal scholars, who argued that a clear definition would avoid confusion as to what nuisance, in the sense of perturbation or emission („immissió” in Catalan) is. After having taken into account the concept of nuisance used by public law, nuisance in the sense of private law may be defined as an interference of either physical or immaterial substances on a piece of land which the neighbouring owner carries out on a repeated basis in the use of the faculties or powers which derive from his ownership of land.⁸⁹ The Code now makes reference to perturbations consisting of smoke, noise, gas, vapour, smells, heat, trembling, electromagnetic radiation and light and any other similar perturbations (Art. 546-13 CCC). Probably, interference produced by GMOs would fit into such a broad definition in as far as the composition of the traditional crops becomes changed by the presence of GMO in them. Also, although both the Nuisance Act and the Code only refer to the protection of the „owner” of the affected land, it had already been accepted by legal scholarship that this term may be understood in a broad sense, to include the co-owner and other people who have a more limited right or interest in the land, such as usufructuaries or users, among others.⁹⁰
- 59 Nonetheless, it has to be taken into account that not every nuisance coming from a neighbouring property entitles the affected owner to make use of the remedies provided by the Act. First, the owner must tolerate innocuous perturbation and perturbations which cause non-substantial harm to the land. To

85 Llei 5/2006, de 10 de maig, *del llibre cinquè del Codi civil de Catalunya, relatiu als drets reals* (DOGC no. 4640, 24 May 2005).

86 Llei 13/1990, de 9 de juliol, *de l'acció negatòria, les immissions, les servituds i les relacions de veïnatge* (DOGC no. 1319, 18 July 1990). The text in Catalan can be found at the legal data base of the „Projecte Norma Civil”, by the Department of Private Law of the University of Girona: <<http://civil.udg.es/normacivil/cat/Reals/L13-90.htm>>.

87 The period has been shortened, since it was 5 years according to Art. 2.5 Nuisance Act.

88 See J. Egea Fernández, *Acción negatoria, inmisiones y defensa de la propiedad* (1994), 56-58 and 191.

89 See M. E. Lauroba Lacasa, *El dret de propietat*, in F. Badosa Coll (ed.), *Manual de Dret civil català* (2003), 349.

90 See M. E. Lauroba Lacasa (supra note 89), 352.

decide whether harm is substantial or not, the Code takes into account whether the harm exceeds the limits or maximum values or the indicative values established by the statutes or regulations (Art. 546-14.1 2nd part CCC), so it has abandoned the criterion followed by the Nuisance Act, which took into account economic criteria related to the exploitation of the land (Art. 3.2 LANISRV). In these cases, the affected owner does not have any remedy—not even an action in tort—against such a nuisance. Moreover, this makes a difference compared to Spanish law, since the victim would be in a worse condition under Catalan law in comparison to the regime of the Spanish Civil Code. Legal scholarship have already sharply criticised the provisions of the Nuisance Act, since the victim should be entitled to claim compensation at least when the interferences caused substantial harm to his health.⁹¹

- 60 Second, the victim has to tolerate the nuisance which causes substantial losses if they are a result of the normal use of the neighbouring land, according to the local custom, according to the regulations, and putting an end to the activity that produces the perturbation entails disproportionate financial costs (Art. 546-14.2 CCC). Again, this may be a problem for traditional farmers from regions where most crops are genetically modified. Nevertheless, they are allowed to adopt any measures to mitigate the harm, and the resulting expenses will be paid by the neighbouring owner (Art. 546-14.4 *in fine*; art. 3.3 LANISRV). In this case, the owner suffering the nuisance has right to a compensation for past harm and also for harm which could occur in the future, if nuisance exaggeratedly affects the product of the land or its normal use, according to the local custom (Art. 546-14.3 CCC and Art. 3.4 LANISRV). In so doing, Catalan law imports the criterion of „normal use according to the local custom” (*ortsübliche Benutzung*) established by the German Civil Code (§ 906 BGB). At any rate, the claim of compensation provided for by the Catalan law does not depend on whether the victim has a proprietary interest in the land, since the link with property is only taken into account by the legislature to define who can ask for injunctive relief.⁹²
- 61 As to the law of Navarra, any „owner and user” of the land is entitled to sue another person in nuisance (Ley 367 of the *Compilación Foral de Navarra*).⁹³ The rule is constructed as if any neighbour could sue another person who causes nuisance independently of the interest the claimant has on the affected

91 See the convincing remarks by J. Egea Fernández (*supra* note 88), 119-120; by the same author, *Relaciones de vecindad, desarrollo industrial y medio ambiente*, in J. Esteve Pardo (ed.), *Derecho del medio ambiente y Administración local* (1996), 63-97, 89-90; later, see also M^a del R. Díaz Romero, *La protección jurídico-civil de la propiedad frente a las inmisiones* (2003), 107 and 119.

92 See again, with regard to the Nuisance Act, J. Egea Fernández (*supra* note 88), 117.

93 Ley 1/1973, de 1 de marzo, *por la que se aprueba la Compilación del Derecho Civil Foral de Navarra, o Fuero Nuevo de Navarra* (BOE no. 57, 7 March 1973).

land.⁹⁴ In any case, it does not seem necessary that nuisance affects an adjoining piece of land in order to establish liability or ask for an injunction. Thus it seems that this regime also allows traditional farmers to bring a claim in tort in the terms described by the questionnaire.

4. Damage and remedies

(a) *How is damage defined and measured?*

- 62 In the first place, damage to the crops is damage to property. Therefore, following the general rules, the victim can choose between compensation in kind and compensation in money. In this second case, according to the principle of full compensation, the award of damages must be the exact translation of the utility which the thing lost had for the claimant as the aim is to place him in a situation which is as similar as possible to the existing prior to when the damage was caused.⁹⁵ According to the same criteria, when compensation in kind is still possible, the victim will be entitled to claim for the thing being repaired, even if the repair costs exceed the market value of the thing—although not if restoration is too burdensome having regard to the damage that has been caused.⁹⁶
- 63 The damage actually sustained by the claimant includes the expenses which he has incurred in order to reduce or mitigate damage, as well as the cost of replacement, i.e., the expenses made by him to prevent the negative effects of the damaging event, as long as these and the former expenses can be considered as resulting from the damaging event and can be attributed to the conduct of the tortfeasor. Loss of earnings (*lucrum cessans*), understood as the net patrimonial increase which the victim has not obtained because of the damaging event, is also recoverable (Art. 1106 CC), although the Supreme Court is quite restrictive by requiring strict proof of the loss.⁹⁷ As regards the concept of „pure economic loss”, as has already been explained, it is unknown to Spanish law.⁹⁸

94 See F. J. Díaz Brito, *El límite de tolerancia en las inmisiones y relaciones de vecindad* (1999), 45.

95 See Á. Carrasco Perera, in M. Albaladejo (ed.), *Comentarios al Código Civil y Compilaciones Forales*, XV-1 (1989), com. art. 1106 CC, 682.

96 See F. Rivero Hernández (supra note 78), 485.

97 Again see F. Rivero Hernández (supra note 78), 481.

98 See above, no. 23.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 64 Given the restrictive approach of the Spanish courts with regard to loss of earnings, it seems doubtful whether the traditional farmers would get compensation for this kind of damage in circumstances like those described in the questionnaire. Not only does the Spanish Supreme Court require a very stringent proof of damage, but it also refuses on many occasions to award damages for loss of earnings arguing that damage was too speculative or that the earnings were contingent and doubtful.⁹⁹ It has to be recalled as well that proof of the causal link is very stringent too, so it would be difficult for the claimants to prove that the alleged loss of earnings derives from fear of the customers that his products are no longer GMO free, since this loss could also be attributable to a change in consumer taste or to other circumstances.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 65 See answer to the previous question.

(d) Which are the criteria for determining the amount of compensation in general?

- 66 The starting point is that Spanish tort law is governed by a principle of *restitutio in integrum* or full compensation of damage sustained by the victim. There are neither specific provisions on compensation for tortious harm nor general rules encompassing harms resulting from contract and from tort. Nevertheless, both legal scholarship and case law consider that the general rules referring to liability in contract also apply to tort liability.¹⁰⁰ Hence, as referred to above, the result is that the „reparation” of damage to which Art. 1902 CC refers can be obtained either by restitution in kind (*reparación en forma específica* or *reparación in natura*) or by pecuniary compensation. In both cases, the law aims at re-establishing the victim, as far as it is possible, to the same position in which he should have been in if the damaging event had not occurred.¹⁰¹
- 67 As a general rule, the assessment of damages has to be done „according to the circumstances of the case” which, in the understanding of the courts, does not mean under their full discretion but a decision under the criteria of „prudence” and „reasonability” (STS 3rd Chamber, 20.1.1998 [RJ 1998\350]). Such as-

⁹⁹ See in general L. Díez-Picazo Ponce de León (supra note 72), 287 and M. Yzquierdo Tolsada, *Sistema de responsabilidad civil contractual y extracontractual* (2001), 151.

¹⁰⁰ Instead of many see R. de Ángel Yágüez, *Tratado de responsabilidad civil* (1993), 671.

¹⁰¹ See C. I. Asúa, in L. Puig Ferriol *et alii*, *Manual de Derecho civil II* (3rd ed. 2000), 481 and F. Rivero Hernández (supra note 78), 485.

assessment is considered to be a question of fact (*quaestio facti*) which pertains to the decision of the courts of instance¹⁰² and can therefore not be reviewed at appeal or at cassation except in cases where the court of instance has not complied with the yardsticks established by the law—if they exist—or by „prudence and reasonability”.¹⁰³ As regards property damage, see the answer to question (m) above.¹⁰⁴

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 68 Liability under the tort provisions of the Civil Code is unlimited. There is no such a thing as a general clause of reduction of liability or *Reduktionsklausel* under Spanish law. No legal rule allows the Judge to reduce the amount of the damages awarded on the mere fact that full compensation menaces the economic situation of the debtor or it is disproportionate. Also there is no possibility for the Judge to reduce liability on the basis of equity (*equidad*) only (Art. 3.2 CC), except in the case of liability based on fault (Art. 1103 CC). Now, the issue is whether this rule is applicable to contractual liability only, or also to liability in tort. Certainly, many court decisions refer to this provision in order to look for a legal basis to reduce liability.¹⁰⁵ But as a matter of fact in these cases there is no true reduction in the sense referred to above, but only a distribution of liability between the defendant and the victim who contributed to cause damage to himself.¹⁰⁶
- 69 Properly speaking, Art. 1103 CC is placed in a section whose heading is entitled „On the nature and effects of obligations”. Taking into account that the Civil Code devotes only few provisions to tort liability, courts and legal writing tend to apply most of these general provisions, such as the one relating to the standard of care (Art. 1104 CC) or the scope of the recoverable damage (Art. 1107 CC) to tort law. However, many of these provisions, which at first sight seem common to contractual and tort liabilities, implicitly assume that there is a contractual relationship between the parties.¹⁰⁷ Nevertheless, the provisions of the special regime on bankruptcy will still protect the debtor.

102 See STS 6.5.1997 [RJ 1997\3866] and 18.12.2000 [RJ 2000\10123], among many others.

103 See STS 2nd Chamber 21.4.1989 [RJ 1989\3498] and 23.2.1989 [RJ 1989\1250].

104 *Supra*, no. 63.

105 Among others, STS 13.10.1981 [RJ 1981\3734]; 15.12.1984 [RJ 1984\6118] and 11.2.1993 [RJ 1993\1457].

106 As M. Albaladejo, *Derecho civil*, II, *Derecho de obligaciones* (12th ed. 2004), 937, has rightly pointed out.

107 See L. Díez-Picazo Ponce de León (*supra* note 72), 360-361.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

70 The answer is no.

(g) Which procedures apply to obtain redress in such cases?

71 In addition to the administrative procedure described above, the victims may file a claim before a court. The procedure is established by the Civil Procedure Act.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

72 The answer is no.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

73 Under Spanish law there are no specific rules on the issue of who has to bear the costs associated with sampling and testing of GMO presence in other products.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

74 The authors of this report know of no industry-based rules concerning the issue at stake. As for general rules, the question does not seem to have been raised either. Actually, when Spanish courts and legal scholars refer to prevention of damage they are usually thinking of the possibility for the claimant to ask the Judge for an injunction or to force the tortfeasor to cease his conduct. In these cases it is usually spoken of a „preventive protection”.¹⁰⁸ Moreover, it has been traditionally considered that the mere creation of a risk does no amount, in itself, to an illicit action. If there is no damage, there is also no right to compensation.¹⁰⁹ Therefore, it can be deduced from this that if a farmer has carried out any preventative measures to avoid damage, damage as

¹⁰⁸ For instance see N. Álvarez Lata (supra note 84), 866.

¹⁰⁹ See F. Rivero Hernández (supra note 78), 453.

a condition for liability does not exist.¹¹⁰ Furthermore, it seems that sampling and testing of GMO presence is something which the victim does to his own profit. For this reason, there is probably some basis to argue that there is no causal link with the conduct of the defendant.¹¹¹

- 75 However, a different solution could probably be based on the idea that the victim has a duty to mitigate damage. Thus, the adoption of preventative measures is a logical corollary or consequence of the burden to reduce damage if possible.¹¹² Accordingly, it would be reasonable to allow the victim to recover the cost of measures he has to adopt. Thus, if this was accepted, the cost of true preventative measures could be recoverable in tort. However, it is rather unclear if the same applies to costs of general monitoring which, it is understood, derive from measures which are not adopted in the presence of a menace of damage, but on a regular basis with a general preventative aim.¹¹³

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 76 As has been explained, the criterion accepted by most scholars is that the costs of preventive measures are not recoverable because there is no damage. However, this is not shared by another opinion (see answer to the previous question).

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 77 There are no specific provisions concerning cross-border issues deriving from the kind of harm described in the questionnaire. As a matter of fact, legal scholarship has usually pointed out that a satisfactory solution for cases of

110 In general see E. Moreno Trujillo, La responsabilidad civil por deterioro del medio ambiente», in G. Gómez Orfanel (ed.), *Derecho del medio ambiente* (1995), 47-70, 59 and M. J. Reyes López, *Derecho ambiental español* (2001), 222.

111 A similar argument has been raised by Á. Carrasco Perera (supra note 95), 679 with reference to contractual liability.

112 In a similar sense, see R. de Ángel Yágüez (supra note 100), 602.

113 See Á. Carrasco Perera (supra note 95), 679, who is contrary to compensate such a cost in the context of contractual liability.

damage caused by nuisance has to be searched for in the general rules on international private law.¹¹⁴

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 78 In Spain, the general rules on international private law are to be found in the Civil Code (Art. 8 to 12 CC). According to them, non-contractual obligations are governed by the law of the place where the fact from which they derive has occurred (Art. 10 par. 9 CC). Legal scholarship has criticised that the expression „non-contractual obligations” used by the provision is too broad. The provision is also considered to be too general and the solution provided for too simple. To apply the criterion of *lex loci delicti* in every case does not allow the following of more flexible approaches which are to be found in the legislation of other countries.¹¹⁵

114 Recently see A. Crespo Hernández, Daños al medio ambiente y regal de la ubicuidad en el art. 8 del futuro Reglamento de Roma II, [2006] *InDret* Working Paper no. 366, 5, <www.indret.com>, with further references.

115 See K. Fach Gómez, Respuestas jurídicas a la contaminación transfronteriza: iniciativas comunitarias, to be downloaded from the website of the European Union at: <http://ec.europa.eu/justice_home/news/consulting_public/rome_ii/katia_fach_gomez_es.pdf>, 2-3.

25. SWEDEN

David Langlet/Mårten Schultz

I. Special Liability or Compensation Regimes

- 1 As of June 2006 no commercial production of genetically modified crops is yet taking place in Sweden. The commencement of commercial growing of GMOs may, however, be expected in the relatively near future. About 115 field trials have been conducted over the past 17 years, the vast majority of which have involved potato, rape seed or sugar beet. There is no special liability regime for GMOs in force in Swedish law. The Swedish legislator is currently reviewing and possibly expanding the applicable legislation in order to prepare for the commencement of commercial utilisation of GM crops. This has so far included inter alia the elaboration of draft regulations pertaining to the coexistence of GM and non-GM potatoes and maize and the appointment of a commission that would, inter alia, look into the need for a special regime for liability in connection with admixture of GMO and non-GMO crops.¹ According to the directive from the Government the commission should, more specifically, investigate whether there is need for a special strict liability regime or if the present rules are sufficient to deal with these liability issues. The investigation is limited to economic loss only. It is further noted in the directive that one particular problem with regard to loss resulting from the spreading of GMOs into other crops is the plaintiff's burden of proof in regard to causation and this issue is also something that the commission has been asked to look into. Another issue that the directive mentions more in passing in connection with the problem of proving causation is that it has been argued that a special compensation pool should be introduced. There are as of yet no indications on what results the commission could come up with. Also, these issues have not been a topic of discussion in Swedish legal literature. We will therefore hereinafter consider the question of liability for pure economic loss for GMOs under existing liability rules.

II. General Liability or other Compensation Schemes

1. Introduction

- 2 Since there are as of yet no special liability regimes for GMOs we will need to account for how the situations that fall under the questionnaire could be dealt with under general rules on liability. In this regard there are several different sets of rules that need to be considered. In theory three different approaches

¹ Direktiv (= directive) 2006:38, from April 27, 2006.

could be taken by a court that would have to decide a case of liability for GMOs today. Of these three alternatives only one is probably a feasible option if such harm would occur today.

- 3 Firstly, the liability question could perhaps fall under the special liability rules concerning environmental damages in *chapter 32 of the Environmental Code* (or Book).² The liability rules in the Environmental Code are rather narrowly formulated and not all damages that would, in a wide sense of the word, be called environmental damages are covered by the Environmental Code.³ The emphasis of the rules in chapter 32 of the Environmental Code is on relationships between neighbours and most rules herein are thus of a type that in English law would be dealt with under the heading nuisance law.⁴ In chapter 32, section 3, it is stated that liability under the chapter can arise for different „disturbances” that are listed in the section. The disturbances that entitle the victim to compensation are pollution of water areas, pollution of groundwater, changing of groundwater level, air pollution, land pollution, noise, vibration or other similar disturbance. Liability for GMOs under chapter 32 of the Environmental Code is thus only possible if it could be regarded as similar to some of the other listed disturbances. In the directive to the commission on liability for GMO it was stated that for the rules in the Environmental Code to apply to the GMO situation it would need to be categorized as a disturbance similar to land pollution. In the directive, however, this was not seen as a real possibility since the list in ch. 32, sect. 3 focuses on a situation where the pollution entailed health risks or where crops become unfit, which (at least generally) is not the case of admixture of GMO and non-GMO crops. Against these statements it seems clear that the rules in the Environmental Code can probably not be used, and would not be used, in the type of situations we are dealing with in this report. However, we will still consider the rules in the Environmental Code to some extent in the discussion on general liability rules below. The reason for this is that on many of the specific issues that may arise in a situation where GMOs mix with non-GMO crops, the rules in the Environmental Code seem more suitable for dealing with the specific problems of liability for GMO rather than the general liability rules. It is therefore possible that the approach taken in the Environmental Code could have some influence on the proposal that eventually will be presented by the appointed commission.

2 The Environmental Code can be found in English translation on the Portal of the Swedish Government, see <http://www.regeringen.se/content/1/c4/13/48/385ef12a.pdf>.

3 For instance: Ecological harm that has not been caused through activities on a piece of land would not fall under the Code.

4 Chapter 32 of the Environmental Code includes other rules as well and not only rules on the relationship between neighbours/landowners. There are also several rules on liability for damage in relation with construction work (which hardly would fall under the expression “environmental damage” in everyday language).

- 4 Secondly, there is in theory a possibility that the situation of liability for GMO could induce the courts to introduce a regime of *strict liability*. In practice this seems highly unlikely. There are no general principles that dangerous activities fall under a strict liability in Sweden. In fact, in Swedish tort law there has been a considerable reluctance to establish strict liability regimes in the absence of legislation. The most important writer on Swedish tort law in the last decades famously stated that for courts to introduce strict liability without legislation has been considered a „bold, almost revolutionary step”.⁵ There are some few exceptions. Recently the Swedish Supreme Court established that strict liability applies in situations where property damage is caused by a leakage from different types of water and sewage systems.⁶ There are some older examples as well, where the Swedish Supreme Court has established strict liability without any statutory support but then restricted it to dangerous activities (for instance military exercises). There are many examples of strict liability in special legislation, for example in chapter 32 of Environmental Code. As a general characteristic it could be said that legislation stipulating strict liability has been introduced for different kinds of dangerous activities (albeit the rules on strict liability for dogs might be an exception). Therefore, and especially in light of the comments made by the Government in the directive to the commission on liability for GMOs mentioned in the previous paragraph, it seems unlikely that a Swedish court would establish a strict liability regime for GMOs without any clear guidelines from the legislator.
- 5 Thirdly, liability for GMOs could be dealt with under the *general liability rules*. These rules follow from the *Tort Liability Act* from 1972. This act is often characterized as a framework statute. Many important questions – for instance the requirement of causation and issues of remoteness of damage – are not dealt with in the Act at all.
- 6 We will in the rest of this report focus on the general liability rules that are stated in the Tort Liability Act and which follow from unwritten law. We will also make comparisons with the rules of the Environmental Code where such comparisons could be of interest.

5 The writer is Jan Heller, see Jan Heller/Svante Johansson, *Skadeståndsrätt* (6th ed. 2000) 170. The Swedish attitude here contrasts with that in other Scandinavian countries (Norway and Denmark) where the courts have been more favourable to establish strict liability regimes for different types of dangerous activities.

6 See NJA 1991 p. 720, NJA 1997 p. 684 and NJA 2001 p. 368.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 7 There are no general, codified rules on causation in *statutory* Swedish tort law. There are several examples in special legislation on the issue of burden of proof for causation (see for instance the Environmental Code, chapter 32, section 3, paragraph 3), but there are no rules on causation as such in special legislation either.
- 8 To these authors, it seems fairly clear that it is inaccurate to hold that the Swedish *courts* understand the general concept of causation in terms of the *conditio sine qua non* theory. The approach of the Swedish courts could probably best be described as pragmatic and the courts seem not to have felt any need for a general theory of causation. The expressions of necessary and sufficient conditions occur seldom in court practice.⁷
- 9 In *legal literature* the conceptual framework of necessary and sufficient conditions is still dominant but what this framework in more detail is supposed to do for causal analysis is somewhat unclear.⁸ It seems that very few authors today would be ready to take a stand for the *conditio sine qua non* theory. However, there are examples of how the heritage from the *conditio sine qua non* theory can still be detected, for instance in accounts of „competing causation” or multiple-sufficient causes situations.
- 10 To summarize, the concept of causation in Swedish tort law is difficult to capture in any clear-cut formula.

(b) How is the burden of proof distributed?

- 11 The question concerning causation that has been most widely discussed in recent time in Swedish law is whether the standard rules on *burden of proof* should be applied also in situations where causation is difficult to establish. As a general starting point it is up to the plaintiff to prove causation. The standard for this burden of proof in Swedish tort law is higher than the „more

⁷ It should be noted that there are some exceptions. See for instance the but-for test approach taken by the Court of Appeals opinion in NJA 1987 p. 710 and the minority in the Supreme Court in NJA 1982 p. 421.

⁸ See, inter alia, Jan Hellner/Svante Johansson, *Skadeståndsrätt* (6th ed. 2000), 12.1.2; Håkan Andersson, *Skyddsändamål och adekvans* (1993), 290 et. seq.; Richard Hager, *Värderingsrätt* (1998), 250 et. seq.; Ulf Persson, *Skada och värde* (1953) 93 et seq. and 190 et. seq; Bill W. Dufwa, *Flera skadeståndsskyldiga*, (1993), no. 2419; Marcus Radetzki, *Orsak och skada* (1998), 88 et seq.; Mårten Schultz, Further Ruminations on Cause-in-Fact, in Peter Wahlgren (ed.), *Scandinavian Studies in Law 41* (2001), 467 et seq.

likely than not” standard, but lower than the „beyond a reasonable doubt” standard in criminal law. (The Swedish term for the traditional standard of burden of proof is „styrka”, in literal translation „to strengthen”, which is often translated simply into „prove”.)

- 12 In cases where causation is difficult to establish, the plaintiff’s burden of proof is sometimes alleviated. If there are two or more possible causes of damage the plaintiff will in most cases have fulfilled the burden of proof if she can make her causal explanation clearly more probable than any other explanation, but only if the plaintiff’s explanation is probable in itself.⁹ In cases where the cause of damage is disputed among the parties this threshold for the burden of proof is now well entrenched, albeit there are some (potentially important) differences in the wording in the different cases.
- 13 The lowered threshold for the burden of proof can be found in many areas which are covered by *special legislation*. For instance, in the aforementioned rule in the *Environmental Code* (Ch. 32, sect. 3) there is a special rule regarding the burden of proof (para. 3).¹⁰ The same applies in many other situations where there is a special statute on compensation for damages, for instance in the case of patient injuries.
- 14 It should be noted that the burden of proof concerning causation is seldom shifted to the defendant. The Supreme Court has shifted the burden of proof in

9 See NJA 1981 p. 622. The circumstances are perhaps interesting here since there are some affinities with the present topic. Plaintiff owned a fish farm in the municipality of Västervik. A sewage station owned by the municipality discharged phenol into a ditch, which thereafter poured into the fish farm. The plaintiff claimed damages from the municipality under the argument that trout in the fish farm died as a result of the phenol discharge. The municipality opposed the claim and argued that the actual cause of the trout’s death was a lack of oxygen in the pond. The Supreme Court found that the parties had presented no other possible causes than the phenol discharge and the lack of oxygen. It was further established that full certainty of what actually caused the death of the trout could not be obtained, but stated that this did not preclude a successful claim. In some claims concerning damages where the issue of causation is disputed between the parties it may be sufficient that the causal connection proposed by the plaintiff appears to be clearly more probable than any other explanation proposed by the defendant and if it seems probable also in regard of the other circumstances of the case. The Court further stated that the lowered threshold for the burden of proof was especially motivated in cases of environmental damages and similar types of damages. After consideration of the evidence in the case the Court found that the plaintiff’s explanation seemed substantially more probable than the defendant’s proposition. The plaintiff was awarded damages

10 In the official translation of the Code, this is expressed as follows. “Damage shall be deemed to have been caused by a disturbance referred to in the first paragraph where, in view of the nature of the disturbance and its adverse effects, other possible causes and any other circumstances, the balance of probability indicates that the disturbance was the cause.”

some, few cases that seemingly have little in common with the question of liability for GMOs.¹¹

(c) *How are problems of multiple causes handled by the general regime?*

- 15 Swedish tort law does not acknowledge any particular rules or principles on alternative, potential or uncertain causation. This topic has not been that much discussed in Swedish tort law. The main reason for this is probably that many of the types of claims that have provoked different national systems to introduce such particular doctrines of causation, including also different types of proportional liability doctrines and compensation for a loss of chance, would in Swedish law fall outside the scope of tort law and would rather be dealt with under special compensation schemes. In this way liability is channelled to particular compensation systems. This applies especially for personal injuries. The Swedish, or Nordic Model is sometimes used as an expression for a compensation model that in important areas more or less has replaced tort law as a tool for compensation of personal injuries with other modes of compensation. Narrowly defined the Swedish or Nordic Model is an expression of the general attitude towards personal injury compensation as expressed in the insurance schemes for compensation of traffic injuries, occupational injuries, patient injuries and pharmaceutical injuries.¹² As a result of these compensation schemes many of the difficult questions concerning causation in cases of personal injury, for instance in the case of pharmaceutical injuries, have not been brought to the fore the way they have in other jurisdictions.
- 16 In this context it should be mentioned that environmental damage that fall under the *Environmental Code* will sometimes be covered by particular environmental damage insurance. A prerequisite is that the damage falls under specified rules in the Code, for instance the rule in chapter 32, section 3. This insurance is explicitly thought to be applicable in some circumstances where causation is difficult to establish. It is thus stated in chapter 33, section 2 that: „Compensation shall be paid out of the environmental damage insurance in

11 In NJA 1988 p. 226 two persons A and B were held criminally responsible for having received stolen property. The property was returned to the owner, but some of it was damaged. A and B argued that the property had been damaged already when they received it, which implicated that the damage had been caused by the thief (or thieves). The Supreme Court established that since there were no indications that the property had *not* been damaged while it was in the possession of A and B, the “inconvenience” that full certainty regarding when the damage occurred could not be obtained should be born by the defendants and not the plaintiff.

12 See, inter alia, Jan Hellner, Compensation for Personal Injury: The Swedish Alternative, 34 *American Journal of Comparative Law*, 613 et. Seq. (1986); Jan Hellner, Compensation for Personal Injuries in Sweden – A Reconsidered View, in: Peter Wahlgren (ed.) *Scandinavian Studies in Law 41*, Stockholm 2001, 249 et. Seq.; Carl Oldertz, Security Insurance, Patient Insurance, and Pharmaceutical Insurance in Sweden, 34 *American Journal of Comparative Law*, 635 et. Seq. (1986).

accordance with the relevant terms and conditions to claimants for bodily injury and material damage referred to in chapter 32, where: [...] 2. it cannot be established who is liable for the injury or damage.”

- 17 There is a general rule in the Tort Liability Act (ch. 6, sect. 4) which states that if several persons are obliged to compensate the same damage, liability is *joint and several*. This rule does not say when several persons are obliged to compensate the same damage but this follows from the general rules and principles concerning liability.
- 18 Other kinds of collective liability, for instance a *proportional liability* regime, would be seen as a very radical idea in Swedish tort law.
- 19 It could be interesting to note that that Sweden has introduced the *class action* institute recently.¹³ For environmental damages that fall under the Environmental Code there is a special provision (the Environmental Code, ch. 32, sect. 13), stating that claims for compensation under the Code may be handled under the special procedural rules in the Act on Class Action. Also for other kinds of damage, for instance in our case of pure economic loss resulting from the spreading of GMOs that will probably not be dealt with under the Environmental Code, such cases may be dealt with under the class action institute if the conditions are fulfilled. It should be said that the Swedish version of the class action institute is in many aspects different from its US counterpart. The legislation is not intended to have material implications for tort law¹⁴ which means that (in theory) the requirement of causation would not be differently dealt with within a class action suit than in a traditional, bilateral case.

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 20 Liability under the general rules in the Tort Liability Act (especially the main rule in chapter 2, sect 1 – often simply called the *culpa rule*) is for the most part a negligence (fault-based) liability. There are no guidelines in the Act on how to decide negligence in a particular case.
- 21 Compensation for pure economic loss does *not* fall under the general culpa rule in the Tort Liability Act but under a particular rule in chapter 2, section 2.¹⁵ The conditions for establishing fault are nevertheless of interest in this context since liability for pure economic loss generally requires fault, even if fault is not always sufficient.

¹³ Act 2002:599 on Class Action (lag 2002:599 om grupprättegång).

¹⁴ Explicitly stated in the preparatory works, see *proposition* 2001/02:107, 31.

¹⁵ This rule will be presented below.

- 22 In the most important Swedish textbook on tort law, Jan Hellner's *Skadeståndsrätt*, a model for evaluating whether negligence has occurred is presented.¹⁶ According to Hellner the conduct of a person in a negligence case can sometimes be evaluated against rules or standards expressed in legal sources, such as legislation, preparatory works, practice from the Supreme Court and custom. If there is a clear rule of conduct in a statute, or in some other source of law, this is often a clear indication on how the negligence question should be resolved. However, a conduct that is in violation of a rule (say a rule of conduct in traffic) can (probably) not *per se* be regarded to be negligent.¹⁷ Violation of norms in legal sources thus make a good case for negligence but it is not *always* the case that such violation actually entails that the defendant is considered to have been negligent.
- 23 If there are clearly established statutory rules defining the required conduct for GMO agriculture and these rules have been violated this would in our view make a very strong case for negligence.
- 24 If there are no clear guidelines for how to deal with the negligence issue in a particular case in the legal sources, Hellner suggests that negligence can be tested in a „free evaluation”. This is Hellner's take on the *Learned Hand* formula, which differs in one important aspect from the traditional (economic) view. Hellner thus adds a fourth criterion that should be taken into regard in the evaluation of negligence. According to Hellner the evaluation of the defendant's behaviour should take into regard: 1) the risk of damage; 2) the magnitude of the probable damage; 3) the defendant's possibility to avoid the damage and, 4) the defendant's possibility to realize the risk of damage. There are some cases from the Supreme Court where it is fairly clear that this model has been used.¹⁸
- 25 The general rule on *burden of proof* is that it is the plaintiff that needs to prove that the defendant acted negligently. Negligence is presumed only in few cases without interest for this discussion.
- 26 Liability for disturbances under the *Environmental Code* is strict, with some exceptions.

16 The influence of Hellner's textbook could not be exaggerated. The book is often considered one of the best textbooks in Swedish civil law and its influence is also apparent on court practice. On the question of negligence, see Jan Hellner/Svante Johansson, *Skadeståndsrätt* (6th ed. 2000), 125 et seq.

17 See for instance NJA 1976 p. 379 where the defendant caused a personal injury when he walked on a road where pedestrians were not allowed. The Court found the defendant negligent but only after having taken into regard his behaviour; especially that he had missed to take notice of a sign by the road.

18 See, inter alia, NJA 1981 p. 683.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance ‘acts of God’, wrongful acts or omissions of third parties, etc.)?

- 27 The strict liability rules in *the Environmental Code* are probably not applicable on a case liability for GMOs. In cases where the main liability rule in the Code (ch. 32, sect 3) is applicable the defendant can probably not avoid liability with reference to „acts of God” or similar. There are some exceptions from liability within chapter 32 of the Code but these are not to be seen as defences but rather as limitations of the liability rules as such. For instance, when it comes to pollution of water areas, pollution of groundwater and changing of groundwater level, liability is excluded if the defendant has acted in compliance with the terms of a permit for water operations.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 28 This would be the rules in chapter 32 of the Environmental Code as previously discussed. They will likely not be applicable in the type of situations that fall under this study.

4. Damage and remedies

(a) How is damage defined and measured (thereby focusing specifically on the kind of losses covered by this study)?

- 29 Pure economic loss is a special type of damage in general Swedish tort law.¹⁹ It is the only kind of damage that is explicitly defined in the Tort Liability Act. A pure economic loss is, according to the Tort Liability Act, ch. 1, sect. 2, an economic loss that arises without connection with someone’s personal injury or property damage. This definition entails that economic loss that has a connection with a previous personal injury or property damage will not be seen as a pure economic loss, even if the personal injury or property damage was suffered by someone else than the person that suffered the economic loss. In other words: Third party loss resulting from the primary victim’s personal injury or property damage is not a pure economic loss (albeit a „general” economic loss) in Swedish tort law.
- 30 In chapter 2, sect. 2 of the Tort Liability Act it is stated that a pure economic loss is compensable if it is caused through a criminal offence. On the face of it this rule says nothing on whether pure economic loss could be compensated in

¹⁹ The main work on pure economic loss in Sweden is Jan Kleineman, *Ren förmögenhetsskada* (1987).

other cases, that is, in cases where it is the result of a non-criminal conduct. Nevertheless the rule has traditionally been interpreted *e contrario*. The main principle in general Swedish tort law has thus been that pure economic loss is only compensated if it has been caused through a criminal conduct.

- 31 It should be noted that the Tort Liability Act does not apply in situations where special legislation is in force (according to ch. 1, sect. 1). This is especially important for pure economic loss cases. For instance, special rules on compensation for pure economic loss apply in cases of intellectual property law, trademark law and liability for board members in limited liability companies.
- 32 The traditional attitude towards compensation for pure economic loss, albeit this type of loss is narrowly defined, is thus restrictive. In recent years the Courts have been more inclined to make exceptions from the restrictive interpretation. It has now been established that liability for pure economic loss can occur also without criminal conduct in some cases, for instance in the case of negligent misrepresentation and inducement to breach of contract.²⁰ Another situation where such liability can occur has roots in court practice from the time before the introduction of the Tort Liability Act, and that is the case of *culpa in contrahendo*. These cases of compensation for pure economic loss can probably best be described as exceptions to the main rule, which is that pure economic loss is generally compensable if caused through a criminal offence if there is no special legislation applicable to the case.
- 33 Under the rules in the *Environmental Code* there are no restrictions to criminally caused loss. If the prerequisites in the Code are fulfilled pure economic loss may also be compensated. There is however a sort of *de minimis* rule with regard to pure economic loss. In Ch. 32, sect 1 it is stated that pure economic loss is compensated only if the loss is of „some importance”, which means that trivial loss is not compensable. (*De minimis*-rules are uncommon in Swedish tort law.) Even trivial loss is compensated if the responsible party acted criminally. There are rules on criminal responsibility in Ch. 29 of the *Environmental Code*, but there are also rules in the *Penal Code* that may be applicable.
- 34 *Indirect damage* is not compensable under the rules of the *Environmental Code*. It is not completely clear what kind of damage an indirect damage is supposed to be. The exclusion of indirect damage is in line with the general (and uncodified) exclusionary rule for third party loss and could probably best be seen as an extension of the general rule. If we for the sake of argument suppose that the *Environmental Code* would be applicable in a case of GMO, an example could be that a company C, that has a contract with the farmer F who suffers pure economic loss as a result of admixture of her crop and the

20 See especially NJA 1987 p. 692 and NJA 2005 p. 608.

GMO crop owned by D, in its turn suffers loss since F is unable to fulfil her obligations towards C. C would not be able to claim compensation for this loss from D.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free (e.g. because of GMO cultivation in his vicinity) also recognized as compensable, or is proof of actual admixture required?

- 35 As far as we understand it this question will not raise problems for compensation for pure economic loss in Swedish law. Such loss may often be the result of a change in market value and the reason for this change in market value – for instance whether the value of a property is influenced by misconceptions about the real state of affairs – will generally not need to be addressed if the other prerequisites for liability are fulfilled.
- 36 The question of whether actual admixture has occurred may on the other hand have other consequences. This issue falls outside the stated scope of this report but it should be touched upon in this context to give a more complete picture of the system. If an admixture has occurred it could possibly entail that the change in the previously non-GMO crop could be regarded as *property damage* under Swedish law.

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 37 See the answer to the previous question. Pure economic loss may often be the result of a change in market value and the reason for this change in market value will generally not need to be addressed if the other prerequisites for liability are fulfilled.

(d) Which are the criteria for determining the amount of compensation in general, and how would this apply to the kind of cases covered by this study?

- 38 There are no statutory rules in the Tort Liability Act on how compensation for pure economic loss should be calculated. (This is in contrast with compensation for personal injury and property damage where there are many, detailed rules in chapter 5 of the Tort Liability Act.) The loss would probably be calculated from an estimation of the loss of market value of the crop. In addition the farmer would be able to claim compensation for costs, for instance the cost of testing. Compensation may perhaps also be awarded for future loss if such loss can be estimated in advance.
- 39 There is a general rule in the *Procedural Code* (chapter 35, sect 5) which stipulates that a court may estimate the value of damage to a reasonable amount if it is difficult or costly for the plaintiff to prove the extent of the

damage. This rule is often used by the courts to estimate the amount of compensation.

- 40 There are several particular rules on the calculation of damages in the *Environmental Code*. In Ch. 32, sections 9 and 10 provide guidelines for the calculation of damages. It is explicitly stated that compensation may also be awarded for future loss that can be estimated.

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 41 There are neither caps on damages under the general rules in the Tort Liability Act nor under the rules in the Environmental Code.
- 42 A characteristic feature of Swedish tort law is the many and open possibilities of *mitigation*. In the Tort Liability Act there are several rules on mitigation of damages. The most important rule is the general rule on mitigation which stipulates that if the obligation to pay damages would be „unreasonably burdensome” the amount of damages could be lowered (ch. 6, sect. 2). The general rule is not restricted to exceptional cases and mitigation can even occur when the tortfeasor’s behaviour was criminal.
- 43 There is a special rule on mitigation in the case of contributory negligence on the part of the victim (ch. 6, sect 1).

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 44 The permits granted for field trials have not included specific requirements with respect to testing. The precautionary measures prescribed in the permits have been seen as sufficient to prevent any unintentional gene flow, thus making testing superfluous. General standards to be applied to commercial growers are yet to be adopted. They are, however, likely to prescribe that the responsible authority shall be notified before any growing of a modified crop that has been put on the market may commence. The notification requirement will probably be combined with a fee that covers the costs for inter alia sampling and testing conducted by the pertinent authority (The Board of Agriculture). It does not seem likely that the future rules will provide owners or users of neighbouring properties with the right to conduct their own testing at the expense of the grower of GM crops. The rules are, as previously mentioned, yet to be adopted.

- 45 Responsibility for monitoring of GMO presence in food and feed is divided between the municipalities and the National Food Administration (NFA, in Swedish: Livsmedelsverket) with only a few large importers and industries falling within the latter's responsibility. Currently, the only testing by public authorities taking place is that conducted within specific projects initiated by the NFA. It involves the taking and analysing of samples from food products. So far, the costs of these analyses have been borne by the NFA. The main focus of the GMO-related food control has not been on the testing of random samples but rather on controlling that actors in the food business apply the labelling and documentation requirements appropriately. The system is built on a relatively high level of trust towards the private actors and puts a lot of emphasis on information and education rather than control. There is, however, a legal basis for letting those subject to control measures pay for the tests conducted as part of the official control system. The bulk of all analyses conducted are made on a voluntary basis by industry itself, mainly by the larger actors in the business as a way to complement producer certificates and other means of guaranteeing the GM free status of purchased products.
- 46 Seed for sowing is subject to its own regulatory regime. All such seed imported from a third country (i.e. a non-EC Member State) is subject to official control which may include the taking of samples and testing for GMOs in those kinds of seed where presence of such organisms is likely, typically rape seed. With respect to such seed from other sources the control is less vigorous but the authorities retain the right to subject each lot to monitoring. With respect to seed for sowing, the cost for monitoring, including testing for presence of GMOs, is borne by the importer/producer of the seed.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 47 No specific industry based rules appear to exist. The taking and testing of samples is made on the basis of company specific policies and varies between different sectors and companies due, e.g. to the likelihood of admixing of GMOs and the priorities of individual companies. The cost for such testing is borne by the individual company that is having the test made. The distribution of costs for unintentional presence of GMOs is, to the extent that it is at all addressed, subject to regulation by agreement between the concerned commercial actors.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 48 Not applicable. See answer to III.1 above.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 49 As far as we know there is no special conflict of laws rules in force or planned which may apply to harm of the kind dealt with in this report.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 50 The general rule on jurisdiction for claims for damages is found in the Procedural Code, chapter 10, sect. 8. This rule states that tort damages should be tried by the court where the harm was caused or where the harm occurred. Additionally, the Brussels I regulation and the Lugano Convention may be applicable.²¹
- 51 As to the question of applicable law, the general principle with respect to non-contractual damages is that of *lex loci delictii*, i.e. the case shall be tried according to the applicable law where the action was taken that caused the damage.²²
- 52 If damage is caused in the territory of one of our Nordic neighbour states particular rules apply provided that the damage is deemed to be environmental in character. In accordance with *the Nordic Convention on the Protection of the Environment*²³ between Denmark, Finland, Norway and Sweden any person who suffers damage caused by environmentally harmful activities in another contracting state has the right to bring before the appropriate court or administrative authority of that state proceedings concerning compensation from damage caused by such activities. The question of compensation shall not be judged by rules which are less favorable to the injured party than the rules of compensation of the state in which the activities are being carried out.²⁴ Although GMOs are not explicitly covered by the Convention it is reasonable to presume that its open ended definition of environmentally harmful activities should be deemed to cover damage caused by the unintentional spread of such organisms.²⁵ In practice, this would mean that in the case of harm being caused by cultivation of GMOs in Sweden on the production of

21 With respect to Denmark, the Brussels Convention is still applied.

22 This was established by the Swedish Supreme Court in 1969 (NJA 1969 s. 163).

23 13 *ILM* (1974), 511.

24 See Article 3.

25 See Article 1.

non-GMOs in a neighbouring country, an effected person could sue for damages in a Swedish court. Such a person would also be entitled to have the case tried according to Swedish law to the extent that it would be more beneficial to the claimant than the law of the country where the injury occurred.

- 53 The so-called Rom II regulation, currently being elaborated by the EC legislator, will affect the state of Swedish law once it enters into force.²⁶

²⁶ See the Commission's proposal COM(2003)427 final.

26. SWITZERLAND

Markus Müller-Chen

I. Special Liability or Compensation Regimes

1. Introduction

- 1 The Federal Law relating to Non-human Gene Technology (GTL)¹ entered into force on 1st January 2004. The GTL aims at protecting humans, animals and biological diversity. Art. 1 sec. 2 GTL lays down an open list of goals:
 - a. Protection of health and security of humans, animals and the environment,
 - b. Sustainable biological diversity and fertility of the soil,
 - c. Respect of human creature,
 - d. Free choice for consumers,
 - e. No misleading information concerning the quality of a product,
 - f. Promoting public information,
 - g. Acknowledgement of importance of scientific research in the domain of genetic technologies.
- 2 The GTL has established a tight net of notification, authorisations and supervision which include the handling of GMO in contained systems, field experiments and the final release into the environment.
- 3 Art. 30 ff. GTL lays down liability rules. They also cover the topic of this study i.e. the damage of non GM crops by GMO presence. The following paragraphs give an overview. Please find in quotation marks an unofficial and unpublished translation of the relevant provisions done at the behest of the Federal Office for the Environment.

Art. 30 sec. 1 GTL: „Any person subject to the notification or authorisation requirement, who handles genetically modified organisms in contained systems, releases such organisms for experimental purposes or markets them without permission is liable for any damage that occurs during this handling that is a result of the genetic modification.“

- 4 Strict liability applies to damage caused by the handling of GMOs in a contained system, by releases for experimental purposes or by their non authorised placing into circulation (art. 30 sec. 1 GTL). The person subject to au-

¹ SR 814.91; SR is an abbreviation for „Systematische Rechtsammlung“ which means the systematic compendium of the federal law

thorisation is liable for all damages caused by the genetic modifications without taking into consideration fault or negligence.

Art. 30 sec. 2 GTL: „The person subject to authorisation is solely liable for any damage that occurs to agricultural or forestry enterprises or to consumers of products of these enterprises through the permitted marketing of genetically modified organisms, that is a result of the modification of the genetic material, if the organisms:

- a. are contained in agricultural or forestry additives; or
- b. stem from such additives.“

- 5 The notion of „permitted marketing“ in art. 30 sec. 2 GTL means putting GMO products into circulation with a licence from the Confederation (art. 12 sec. 1 GTL). Marketing covers sale, barter, send on sale or return, leasing GMOs away as well as imports. Contained use or release for experimental purposes do not fall under marketing (art. 5 sec. 5 GTL, arts . 10/11 GTL).
- 6 Art. 30 sec. 2 GTL was the price the GMO-agribusiness had to pay to get the buy-in from the GMO-sceptical farming and forestry lobby. It covers the damage suffered by agricultural and forestry enterprises or consumers of products of these enterprises that arises from GMOs that have been put in circulation with authorisation. The damage has to be caused by genetic modifications. Further assumptions are that the GMOs must be part of additives of agriculture and forestry or originate from such material. This is a no-fault (strict) liability. In such a case the liability is channelled towards the person who received the authorisation to release the GMO into the environment. This person can take recourse against the person who has dealt with the GMO in an inaccurate way or who has contributed otherwise to the damage. Art. 30 sec. 3 GTL states

„In the liability under paragraph 2 recourse to persons who have handled such organisms inappropriately or have otherwise contributed to the occurrence or exacerbation of the damage is reserved.“

- 7 The intention of art. 30 sec. 2 GTL is to protect farmers from any liability and to let the person who earns most of the genetic technology bear the risks of it. The channelling of liability can have negative effects on the injured party. For example, an organic farmer recognises that his wheat is genetically polluted. He sues the person subject to authorisation, say the producer. The defendant can prove that the contamination happened at the agricultural co-operative storing the seeds in an inappropriate way. The court decides to exonerate the producer from liability because of a serious fault of the co-operative. The farmer is barred from suing the co-operative, because it is protected by privilege from liability in art. 30 sec. 2 GTL. But the co-operative can neither be sued on the basis of arts. 41 and 55 CO (Code of Obligations, SR 220) because provisions on strict liability for such consequences are considered to be

lex specialis to fault-based liability provisions by the Federal Court of Justice. This is if the lex specialis is to rule exclusively over damages, which is the case with art. 30 al. 2 GTL. Finally recourse according to art. 30 sec. 3 GTL is not possible because there is no principal claim.

- 8 The notion of additives is not defined by the GTL. It corresponds to the notion of „means of production” laid down in art. 158 of the Federal Law on Agriculture (SR 910.1). „Means of production“ are materials and organisms used for agricultural production. Examples are fertilisers, pesticides, animal feed and vegetable reproduction materials. Several ordinances specify the handling of GMO with different kinds of additives.

Art. 30 sec. 4 GTL: „If damage is caused by any other permitted marketing of genetically modified organisms as a result of the modification of the genetic material, the person subject to authorisation is liable if the organisms are faulty. He or she is also liable for a fault which, according to the state of knowledge and technology at the time when the organism was marketed, could not have been recognised.“

- 9 Art. 30 sec. 4 GTL deals with all cases that do not fall under art. 30 sec. 2 GTL. This means it is concerned with damage either not sustained by agricultural or forestry enterprises or consumers or not caused by organisms contained in agricultural or forestry additives or stem from such additives. Like art. 30 sec. 2 GTL, it only covers cases where the release of GMOs into circulation have been authorised. The person subject to authorisation is liable for the damage caused by the GMO as a consequence of the genetic modification. Contrary to art. 30 sec. 1 and 2 GTL it is required that the GMOs are defective. Art. 30 sec. 5 GTL defines a defective GMO as follows:

„Genetically modified organisms are defective if they do not provide the safety that is to be expected, taking into consideration all situations; in particular the following should be considered:

- a. the way in which they are presented to the public;
- b. the use that can reasonably be expected;
- c. the time at which they were marketed.“

Please consult 26.I.3(b) for further comments.

- 10 If the GMO has no defect in the sense of art. 30 sec. 4/5 GTL, the person subject to authorisation is not liable. The liability could, though, be constituted based on the general liability provisions that can be applied alternatively, if the individual prerequisites are fulfilled (art. 41 CO: fault-based; art. 1 ff. Federal Product Liability Act: non fault-based; arts. 59a and 59a bis Environment Protection Law: strict liability; art. 55 CO; arts. 679/684 CC).

- 11 The general liability provision for illicit acts of art. 41 CO assumes an illicit act or a failure to act where an act is required, a damage and fault or negligence. Further a causal link is needed between the illicit act, the negligence contrary to duty and the damage.
- 12 Art. 1 ff. of the Federal Product Liability Act is a non fault-based liability provision for the producer of consequential damage through a defective product. The defective product must be a movable good which has been industrially produced, (whether or not incorporated into another movable or into an immovable good). Only the consequential damage is covered, including bodily harm or damage to objects that are mainly in private use. The claimant has to prove the damage, the defect in the product and the causal link between the damage and defect.
- 13 Art. 59a of the Environment Protection Law states a liability independent of fault. The owner of a factory or a plant whose activities are potentially dangerous to the environment is liable for the damage that occurs through realisation of this danger. Art. 59a bis of the Environment Protection Law states a liability for damages that occur by handling with pathogenic organisms.
- 14 According to art. 55 sec. 1 CO the principal shall be liable for damages caused by his employees or other supporting staff in the course of their employment or business. He is exempted from liability if he proves that he took all precautions appropriate under the circumstances in order to prevent damage of that kind, or that the damage would have occurred in spite of the application of such precautions. Art. 55 sec. 1 CO states that the principal may claim recourse from the person who caused such damage to the extent that the latter is liable in his own right.
- 15 Art. 684 sec. 1 CC requires every owner of land to abstain from any unreasonable act which prejudices his neighbour's property. The neighbour's properties are not only the bordering parcels of land but parcels in a wider ambit. What is a reasonable or respectively an unreasonable impact is judged by an objective and individualised measure. Needs and interests of an average people, the situation and quality of the land as well as customs have to be taken into consideration (art. 684 sec. 2 CC).
- 16 According to art. 679 CC the injured party has several remedies (damages, injunctions etc.) against a successive owner of the land who exceeds his rights of ownership (art. 684 CC).

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

Art. 30 sec. 7 GTL: „The damage must have been caused as a result of:

- a. the new properties of the organisms;
- b. the reproduction or modification of the organisms; or
- c. the transmission of the modified genetic material of the organisms.”

- 17 According to the GTL (e.g. art. 30 sec. 1 GTL) damage can only be claimed if it has been caused by genetic modifications. This provision specifies the general assumption of an adequate causal link. Art. 30 sec. 7 GTL gives an exhaustive list of what has to be understood under „*damage that is a result of the modification of the genetic material*” (art. 30 sec. 1 GTL).”
- 18 The liability has to be limited to damage that arise as a result of the new properties of the organisms reached through a recombination of the genetic material. The damage can also be caused through reproduction, modification or transmission of the modified genetic material of the organisms. Take for example GM maize that is released into the environment and gets mixed with neighbouring, conventional maize. In such a case the damage that occurs in the conventional field must be covered through art. 30 GTL because it is a result of the transmission of GMOs. If on the other hand e.g. a chemical additive of a herbicide has caused the damage (e.g. through genetic modifications) art. 30 GTL cannot be invoked.

(b) How is the burden of proof distributed?

- 19 The claimant has to prove the causal link (art. 33 sec. 1 GTL: „It is the responsibility of the person claiming damages to prove cause.”). This reflects the general rule of the burden of proof. If this proof cannot be delivered with certainty or the person cannot be charged with this task, the court is free to rely on a proof of preponderant probability.

Art. 33 sec. 2 GTL: „If this proof cannot be provided with certainty or if production of proof cannot be expected of the claimant, the court may be satisfied with preponderant probability. The court may also have the facts determined proprio motu.”

- 20 Different sources of adventitious presence of GMO are not being specially taken into account. The liable person is exempt from liability if the causal link was interrupted. Art. 30 sec. 8 GTL states:

„A person is exempt from liability if he or she can prove that the damage was caused by an Act of God or through gross misconduct of the injured party or of a third party.”

- 21 There are no special rules for the allocation of the costs of testing.
- 22 There is no reversed burden of proof, in the sense that the damage is presumed to be the consequence of the presence of a certain GM crop.
- (c) *How are problems of multiple causes handled by the regime? Are there any specific rules for recourse between those liable?*
- 23 There are no special rules for multiple causes or joint liability in the GTL. Liability is channelled to the person subject to authorisation (art. 30 sec. 2 and 4, art. 31 sec. 1 GTL). General civil law provisions (arts. 50-53 CO) are to be applied (art. 30 sec. 9 GTL).
- 24 If there are several causes and among them only one is causal, but it is unknown which one this may be, we speak of *alternative causality*. According to an old doctrine nobody can be held liable in such a case. Contemporary doctrine pleads for either proportionate liability or for joint and several liability (art. 50 sec. 1 CO).
- 25 *Cumulative causality* exists in two forms. Firstly, damage occurred as a result of each action and secondly, damage only occurred through a combination of causes.
- 26 Art. 50 sec. 1 CO states that where several persons *are jointly at fault* (respectively have jointly caused the damage), they shall be jointly and severally liable to the injured party. They may have acted as instigators, principals or assistants. In any case, art. 50 sec. 1 CO is broadly interpreted, so that joint and several liability exists where two or more parties know or ought to have known about the careless behaviour of each other. With such an extensive interpretation, art. 50 CO can be applied in cases with alternative liabilities. The judge, at his discretion, determines whether and to what extent the liable persons have a right of recourse against one another (art. 50 sec. 2 CO in connection with art. 148 CO). Primarily, the judge will take the degree of fault into consideration.
- 27 Secondly it is possible that several persons act independently of each other and each of them has caused and is at fault for the damage. Each person is liable for the entire damage (art. 51 CO).
- 28 Art. 51 sec. 1 CO also deals with cases in which several persons are liable to the injured person for the same damage based on different legal grounds, whether in tort (art. 41 CO), contract, or as a result of a legal requirement

(arts. 55-58 CO). Each accountable party can be sued and is jointly and severally liable for the whole amount of the damage. Whether and to what extent the liable persons have a right of recourse is decided at the court's discretion (art. 51 sec. 1 and 2 CO).

- 29 Presumably, different claims can be invoked alternatively („Anspruchskonkurrenz“). Exclusivity of one of several sources of liability is to be assumed in relation of specific to general norms and when an area is newly and exclusively regulated.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 30 It is not a fault-based regime.

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

(i) Strict liability (*Gefährdungshaftung*)

Art. 30 sec. 1 GTL: „Any person subject to a notification or authorisation requirement, who handles genetically modified organisms in contained systems, releases such organisms for experimental purposes or markets them without permission is liable for damages that occur during this handling that are a result of the genetic modification.“

- 31 Art. 30 sec. 1 GTL allows for the application of strict liability for damage resulting from handling GMOs in contained systems, during releases for experimental purposes or from putting them into circulation without authorisation (see also Chapter I.1). Handling covers all sorts of activities. It is of no significance whether the GMOs are defective or not. Concerning handling with pathogenic organisms, art. 59a bis of the Environment Protection Law contains an identical, strict liability.

Art. 30 sec. 2 GTL: „The person subject to authorisation is solely liable for any damage that occurs to agricultural or forestry enterprises or to consumers of products of these enterprises through the permitted marketing of genetically modified organisms, that are a result of the modification of the genetic material, if the organisms:

- a. are contained in agricultural or forestry additives; or
- b. stem from such additives.“

- 32 A strict liability regime covers the damage of agricultural and forestry enterprises that arise from GMO activity and the damage of consumers through products of such enterprises. It is assumed that the GMOs were put in circulation with permission and that the GMOs are part of additives of agriculture or forestry or stem from such materials. Please consult Chapter I.1. for further comments on art. 30 sec. 2 GTL.

(ii) Strict liability/product liability

Art. 30 sec. 4 GTL: „If damage is caused by any other permitted marketing of genetically modified organisms as a result of the modification of the genetic material, the person subject to authorisation is liable if the organisms are faulty. He or she is also liable for a fault which, according to the state of knowledge and technology at the time when the organism was marketed, could not have been recognised“.

- 33 Please consult Chapter I.1. for general comments on art. 30 sec. 4/5 GTL. The liability of art. 30 sec. 4 GTL is strict in the sense that the person subject to authorisation is liable in general for the damage caused as a result of a defective GMO. It is controversial in the doctrine if it is a liability for the consequences (*Kausalhaftung*) or a strict liability in the sense that the person who gets the benefits out of a potentially dangerous activity (that is welcomed by society) should also carry the risks (*Gefährdungshaftung*). It is to be taken into account that the state-of-the-art defence is not admitted. The person subject to authorisation is also liable for damage resulting from defects that could not have been recognised at the time when the organism was put in circulation. Only force majeure or gross misconduct of the injured party or of a third party can exonerate the injurer (art. 30 sec. 8 GTL).

Art. 30 sec. 5 GTL: „Genetically modified organisms are defective if they do not provide the safety that is to be expected, taking into consideration all situations; in particular the following should be considered:

- a. the way in which they are presented to the public;
- b. the use that can reasonably be expected of them;
- c. the time at which they were marketed.“

Art. 30 sec. 6 GTL: „A product made from genetically modified organisms is not considered defective for the sole reason that an improved product has later been marketed.“

- 34 Art. 30 sec. 5 GTL gives a definition for a defective GMO. The definition of „defect“ in the GTL corresponds to the one in the Federal Product Liability Act (SR 221.112.944). The wordings in art. 30 sec. 5 GTL and art. 4 sec. 1 of the Federal Product Liability Act are identical.

- 35 Art. 30 sec. 5 GTL describes defective organisms as organisms that cannot offer the security standards that they are expected to satisfy taking into consideration all circumstances. Therefore the judge has to be guided by the measure that counts for conventional organisms. This also means inter alia that a non-effect of a GMO can be a defect and that respect of legal security provisions is not coercive evidence for the freedom from defects. Further it means that evidence of a genetic modification is not evidence of a defect. The manner the GM products are presented to the public, the reasonable use and the date they are put in circulation have to be considered. Information given to the recipient according to art. 15 GTL and labelling according to art. 17 GTL are to be remembered in this context. For example collateral effects of a medical drug are not a defect if the patient had been informed about these effects. The authorised person is obliged to notify new findings to the authority and this could lead to a re-judgement of risks (art. 13 sec. 2 GTL). This can be the case with the appearance of genetic instability. This implies that there is a duty of observation on the developments of GM products.
- 36 A GM product is not defective only because a better product is introduced into the market at a later stage (art. 30 sec. 6 GTL).
- 37 The wordings in art. 30 sec. 6 GTL and art. 4 sec. 2 of the Federal Product Liability Act are identical.

(iii) Defences

State-of-the-art defence (art. 30 sec. 4 GTL):

- 38 The liability in art. 30 sec. 4 GTL is stricter than in the Product Liability Act because the state-of-the-art defence is not accepted in the GTL (art. 30 sec. 4 GTL; art. 1 ff. in connection with art. 4 sec. 1 lit. e of the Product Liability Act). Defects under the GTL are for example unforeseen genetical modifications of the GMO after release into the environment, unforeseeable generation of allergies, unforeseeable emergence of a new virus or a resistance. The inclusion of development risks brings about a liability for unknown risks. Further, difficult problems of proof can be circumvented.

General defences for all liabilities

Art. 30 sec. 8 GTL: „A person is exempt from liability if he or she can prove that the damage was caused by an Act of God or through gross misconduct of the injured party or of a third party.“

- 39 The causal link can be interrupted if the damage is caused through force majeure, through gross misconduct of the injured party or of a third party. In such cases there is no liability of the person subject to authorisation (art. 30 sec. 8 GTL).

(c) If it is no liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

40 There are no other compensation mechanisms.

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

41 No.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

42 The relationship between a liability for consequences and a fault-based liability (e.g. art. 41 CO) is exclusive in favour of the liability for consequences. Provisions on liabilities for consequences rule out fault-based liability provisions because the former are looked at as *lex specialis* to the latter by the Federal Court of Justice (see no. 7).

43 In general, there is competition between different liabilities for consequences and the injured party is free to choose the remedy („Anspruchskonkurrenz“). However, if the interpretation shows that one provision is *lex specialis* to the other, then the provision that is *lex specialis* is applicable.

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

(i) Overview

44 The GTL does not define damage; it refers to general liability law (art. 30 sec. 9 GTL). Damage is the unwilful loss of property. Liability under article 30 GTL covers actual loss of property, personal and environmental injury. Pure economic damage are not covered. However, a lot of so called pure economic damage can be defined as a loss of wealth caused by an actual loss (e.g. decrease of the market price of a non-GMO plant through GMO pollen flow). The following paragraphs go more into details.

(ii) Personal injury and actual loss of property

45 Personal injuries may for example manifest as allergies against genetically modified food. A farmer may suffer actual loss of property because the agricultural co-operative mixed GMO and conventional products. Another example is pollen flow. A farmer cultivates GMO wheat and through pollen the field of a conventional or organic farmer is contaminated. The latter suffers loss of income and/or loss of reputation because he cannot sell his products

anymore under an organic food label. However, „damage” only occurs if tolerance values have been exceeded.

(iii) Environmental injury

Art. 31 sec. 1 GTL: „The person who is liable for handling genetically modified organisms must also reimburse the costs of necessary and appropriate measures that are taken to repair destroyed or damaged components of the environment, or to replace them with components of equal value.“

- 46 Art. 31 sec. 1 GTL states that the person who is liable for the handling of the GMO also has to bear the costs of the necessary and adequate measures to reconstitute or substitute destroyed or damaged components of the environment. An environmental injury may happen with the genetic pollution of a protected area and landscape. Further, it has to be taken into consideration that such damages are often irreversible. For further comments on environmental damages see Chapter I.6.

Art. 31 sec. 2 GTL: „If the destroyed or damaged environmental components are not the object of a right in rem or if the eligible person does not take the measures that the situation calls for, damages shall be awarded to the community responsible.“

- 47 The right to compensation accrues to the party entitled in rem or – if there is no private right or the eligible person does not act – to the public institution (art. 31 sec. 2 GTL).

(iv) Pure economic losses

- 48 Pure economic losses can arise when the organic agriculture of a whole region suffers from a bad reputation because of genetic pollution in the fields of one of the farmers and – as a consequence – consumers or traders buy less from all the organic farmers in the region. According to art. 1 GTL the purpose of the GTL is to protect humans, animals and the environment from abuses of gene technology and to serve their welfare. In particular it protects the health and safety of humans, animals and the environment, conserves biological diversity and the fertility of the soil, ensures respect for the dignity of living beings, enables freedom of choice for consumers, prevents product fraud and promotes public information (art. 1 sec. 2 GTL). It can be concluded that the GTL aims to protect persons, properties and the environment from misuse, however, the protection of pure economic loss does not lie in its purpose. Therefore, pure financial losses such as damages suffered from feared GMO presence in non-GM crops are not covered by the GTL.

- 49 The general civil and product liability provisions do not, in general, cover pure financial losses either.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognised as compensable, or is proof of actual admixture required?

- 50 The proof of actual admixture is required. Admixture must exceed tolerance values in order to be relevant for a pollution of GMO free through GMO products. Art. 17 sec. 4 bis of the Ordinance concerning the Seeds (SR 916.151) states that seeds with not more than 0,5 % GMO must not be declared as GMO. Another example is art. 23 sec. 2 of the Ordinance concerning Animal Feeds (SR 916.307) that states a tolerance value of 3 % GMO in the basic substances and 2 % in mixed products. If proof of actual admixture cannot be demonstrated or the admixture lies within tolerance values, it is pure economic loss and thus cannot be recovered.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 51 With regard to compensable losses see no. 44 ff. The loss of farmers whose plants have not been contaminated are not covered since it is a pure economic loss.

(d) Which are the criteria for determining the amount of compensation?

- 52 Again, the GTL does not contain any criteria for measuring the amount of compensation. The general principles are applicable (art. 30 sec. 9 GTL). The judge determines the nature and amount of compensation and thereby will take into consideration the circumstances as well as the extent of the fault (art. 30 sec. 9 GTL in connection with art. 43 sec. 1 CO). There might be cases in which the value of the whole product is covered and others in which only the depreciation can be compensated. It depends on the effectively sustained loss. For example, an organic farmer is not expected to cultivate GMO maize on his land if he finds out that the seeds were GMO infiltrated. In such a case he should not be compensated with the depreciation of the harvest but with the reconstitution and the net value of the missing harvest. According to general civil liability law, the claimant is obliged to take necessary actions in order to minimise the loss. Private contractual agreements can bind the contracting parties. Indirect costs are taken into account.

(e) Is there a financial limit to liability?

- 53 There is no financial limit to liability.

- 54 According to the general liability provisions the judge can decrease or even deny compensation if the claimant is at fault (art. 41 sec. 1 CO). Further, he can decrease compensation if the liable person is facing financial distress caused by the compensation that he is required to pay (art. 30 sec. 9 GTL in connection with art. 44 sec. 2 CO).

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 55 The Federal Council can issue an ordinance that regulates advance cover through a compulsory liability insurance or any other form (art. 34 GTL). In the Ordinance concerning the handling of organisms in the environment (SR 814.911) the Federal Council requires the applicant to provide evidence of sufficient financial resources to detect, avoid or eliminate bothersome or damaging effects. Art. 10 sec. 2 of this ordinance asks for a guarantee up to CHF 20 million. The guarantee can be established through an insurance company that is allowed to offer its services in Switzerland or through the accomplishment with equivalent means (art. 10 sec. 3 of the Ordinance concerning the handling of organisms in the environment). The Federation, its statutory corporations and enterprises can be exempted from these guarantee duties (art. 10 sec. 4 of the Ordinance concerning the Handling of Organisms in the Environment).

(g) Which procedures apply to obtain redress?

- 56 There are no special procedures foreseen in order to obtain redress. General liability rules are applicable (art. 50 f. CO). According to its nature, redress by the liable person assumes the existence of a primary claim. Further, it is also noted, that the only liable person for the damage of the enterprises of agriculture or forestry or for the damage of consumers of products of such enterprises can take redress on persons who dealt with the GMO inadequately or contributed in another manner to the emergence or diffusion of the damage (art. 30 sec. 2 GTL). Art. 50 sec. 1 CO states that where several persons are jointly at fault, they shall be jointly and severally liable to the injured party. The judge, in his discretion, determines whether and to what extent the liable persons have a right of recourse against one another (art. 50 sec. 2 CO in connection with art. 148 CO). Primarily, the judge will take the degree of fault into consideration. For further comments on solidarity and redress see Chapter I.2.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 57 Injunctive relief can be obtained according to the procedural rules of the cantons (there is yet no federal civil procedure). The GTL has no provisions on injunctive relief.

5. Compensation funds

- 58 Neither mandatory nor voluntary compensation funds and plans exist up to now.

6. Comparison to other specific liability or compensation regimes

- 59 The specific liability provisions are the result of an intense political process. The combinations of liability provisions are as such unique. The strict liability of art. 39 sec. 1 GTL also exists for the handling of pathogene organisms in art. 59a bis of the Environment Protection Law (SR 814.01). A channelling of the liability and the establishment of a strict liability as such (in art. 39 sec. 1 and 2 GTL) also exist for example in art. 59a of the Environment Protection Law (for the entrepreneur) and in the Federal Product Liability Act (for the producer). The fault-based compensation element for defectuous organisms is comparable to the Product Liability Act (e.g. the same definitions for defects). However, the GTL provides a stricter liability because it includes a liability for defects that could not be recognised at the time the GMO was put in circulation (development risks).
- 60 According to art. 31 sec. 1 GTL, „[t]he person who is liable for handling GMOs must also reimburse the costs of necessary and appropriate measures that are taken to repair destroyed or damaged components of the environment, or to replace them with components of equal value.” Similar liabilities for environmental damages also exist in a few other laws, for example in art. 18 sec. 1 ter of the Federal Law on the Protection of Nature and the Native Land (SR 451, Bundesgesetz über den Natur- und Heimatschutz). Another example can be found in the Federal Law on Fishing (SR 923). Art. 15 sec. 3 of the Federal Law on Fishing states that the beneficiary of the compensation for the re-establishment of the original situation has to make up as soon as possible. Further, art. 59a bis of the Federal Law on the Protection of the Environment deals with the handling of pathogene organisms. Art. 59a bis of the Environment Protection Law is similar to the rules for GMOs in the GTL. Art. 59a bis sec. 9 of the Environment Protection Law also states that the liable person has to bear the costs of the environmental damage in order to repair damaged or destroyed components of the environment or to replace them with components of equal value.

II. General Liability or other Compensation Schemes

- 61 Since there is a specific liability regime in Switzerland, the questions under this heading need not to be answered.

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 62 There are no specific rules that cover costs associated with sampling and testing of GMO presence.

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 63 There are yet no industry-based rules. According to the general rules the claimant respectively the injured party has to bear these costs.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 64 These costs are only recoverable if the tests prove actual GMO presence.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 65 There are no special jurisdictional or conflict of laws rules for cross-border GMO cases, thus the Lugano-Convention (art. 5 sec. 3) and the Swiss Federal Private International Law Statute (SR 291, PIL Statute) are applicable.

- 66 Switzerland ratified the Cartagena Protocol on Biosafety (SR 0.451.431) and has executed it with the Cartagena Ordinance governing primarily the export of GMO (Ordinance concerning the Cross-border Transfers of GMO, Cartagena-Ordinance, SR 814.912.21). Companies must obtain authorisation from the importing country prior to shipment of GMO, and are obliged to provide detailed information on the product.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

67 The Lugano Treaty on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters (SR 0.275.11) is applicable in determining jurisdiction when members of this Treaty are involved (specif. art. 5 sec. 3). If other states are involved, the PIL Statute defines jurisdiction. If Swiss Courts are compelled the PIL Statute defines applicable law.

68 Art. 129 PIL Statute contains the general rule for the jurisdiction:

„1. Lawsuits based on unlawful acts are subject to the jurisdiction of the Swiss courts at the domicile of the defendant or, if he or she has none, at the place of his or her habitual residence or business establishment.

2. If the defendant has neither his or her domicile, nor his or her habitual residence, nor his or her business establishment in Switzerland, jurisdiction lies with the Swiss court where the act occurred or where it had its effect.

3. If several defendants are subject to Swiss jurisdiction, and if the lawsuits are based on substantially the same facts and law, each court has jurisdiction over all defendants; the court seized first has exclusive jurisdiction.”

69 Art. 132 PIL Statute contains the general rule for the applicable law in case of a choice of applicable law and art. 133 PIL Statute contains the general rule for the applicable law if no applicable law has been chosen.

Art. 132 PIL Statute: „The parties may always agree after the damaging event that the law of the place of the court applies.”

Art. 133 PIL Statute: „1. If the damaging and the damaged or injured parties have their habitual residences in the same country, claims based on unlawful acts are governed by the law of that country.

2. If the damaging and the damaged or injured party do not have their habitual residences in the same country, the law of the country where the unlawful act was committed is applicable. If the effect did not occur in the country where the unlawful act was committed, the law of the country where the effect occurred is applicable if the damaging party should have expected the effect to occur in that country.

3. Notwithstanding subsections 1 and 2, claims based on an unlawful act violating an existing legal relationship between the damaging and the

damaged or injured party are governed by the law that applies to the pre-existing legal relationship.”

70 If more than one person is liable, art. 140 PIL Statute states:

„If more than one person has participated in an unlawful act, for each of them the applicable law is determined separately and regardless of the nature of their participation.”

27. UNITED KINGDOM: ENGLAND & WALES*

*Ken Oliphant***

I. Special Liability or Compensation Regimes

1. Introduction

- 1 There is currently no civil liability or other compensation regime applying specifically to liability for GMOs (cf. the administrative liability scheme described below), but at the time of writing the Government was engaged in a public consultation about proposals for introducing a statutory redress scheme in respect of economic damage resulting from GMO presence in non-GM crops. There are no plans to introduce new statutory liability or compensation provisions for other damage caused by GMOs, though liability may arise in some cases under existing legal principles. The proposed scheme relates to England only; it is for the devolved authorities in Wales, Scotland and Northern Ireland to develop their own policy in the area.
- 2 The current proposals are the outcome of a rather protracted political process. The Government announced in 1999 that it saw merit, on grounds of public confidence, in specific legal provisions for liability in respect of environmental damage caused by the release of GMOs,¹ but it refrained from action at that time, pending the outcome of deliberations about possible EU legislation. In the same year, and the year after, private members' bills in Parliament sought to create a new statutory liability but both were unsuccessful.² In April 2001, in a Parliamentary written answer, the Secretary of State for the Environment (Michael Meacher MP) observed that liability for damage caused by GM crops was being addressed at both European and UK levels, and an-

* The following report focuses on the laws of England and Wales only. References to Scottish law are only included where appropriate. On the state of Scottish law, see e.g. *M. Ruskell*, *GM Liability – Who Should Carry the Can?* (2003, available at <http://www.scottish.parliament.uk/business/bills/pdfs/mb-consultations/gm-consultation.pdf>) 10-11.

** I am very grateful to Elen Stokes for research assistance in connection with this report.

1 Department for Environment, Food & Rural Affairs, *The Government's Response to the Fifth Report of the Select Committee on Environmental Audit. Genetically Modified Organisms and the Environment: Co-Ordination of Government Policy* (1999), Cm 4528, §§ 44-45 <<http://www.defra.gov.uk/environment/response/gmo99/index.htm>>.

2 *Genetically Modified Food and Producer Liability Bill*, HC Bill 128, Session 1998-99, available online at <http://www.parliament.the-stationery-office.co.uk/pa/cm199899/cmbills/128/1999128.htm>, and *Genetically Modified Food and Producer Liability (No 2) Bill*. Prepared by Friends of the Earth and introduced in House of Commons on 24 June 1999 by Alan Simpson MP. And 15 November 2000).

nounced his intention to consider options for possible new liability provisions.³ In November 2003, while the Government was still considering its position, its policy advisors on matters of biotechnology, the Agriculture and Environment Biotechnology Commission (AEBC), recommended the introduction of special arrangements for compensating farmers who suffered financial loss as a result of their produce exceeding, through no fault of their own, the 0.9% threshold beyond which produce must be labelled as 'GM'.⁴ It made no recommendation as to who should fund the proposed scheme, which it envisaged as a temporary expedient pending the development in due course of a private insurance market; again, the Commission left open the question of who should be responsible for paying the insurance premiums. The Commission also considered the related issue of environmental liability, recommending the adoption of the administrative liability model of the then draft EU Environmental Liability Directive, under which liability for the costs of remedying environmental damage arises on a 'polluter pays' basis.⁵ At broadly the same time, legislation to establish liability for environmental harm caused by the deliberate release of GMOs was also recommended by other Government advisers.⁶

- 3 In March 2004, which also saw another unsuccessful private members' bill on liability for GM crops,⁷ the new Secretary of State for the Environment (Margaret Beckett MP) announced the Government's policy on GM crops in a ministerial statement in Parliament, suggesting (*inter alia*) a compensation scheme funded by the GM sector, and making it clear that no funding could be expected from the Government or producers of non-GM crops.⁸ In July 2004, the Department for Environment, Food, & Rural Affairs (DEFRA) announced a two-part consultation exercise on (*inter alia*) options for providing compensation to non-GM farmers who suffer financially because a GM presence exceeds the labelling threshold adopted by the EU.⁹ Following the first part of the consultation, consisting of a series of workshops, in 2005, DEFRA drafted a consultation paper containing proposals on managing the coexis-

3 Hansard, 9 April 2001, col. 379W.

4 AEBC, *GM Crops? Coexistence and Liability* (2003).

5 Recommendation 6. As an interim step, the AEBC recommended that Part VI of the Environmental Protection Act 1990 should be amended so that it would no longer be necessary to obtain a conviction in the criminal courts before being able to require environmental remediation: § 345 and Recommendation 7.

6 Joint Nature Conservation Commission, Position Statement on Genetically Modified Organisms in the Environment, updated 15 Oct 2003 <<http://www.jncc.gov.uk/page-2992>>.

7 Genetically Modified Organisms Bill, HC Bill 31, Session 2003-04, available online at <http://www.publications.parliament.uk/pa/cm200304/cmbills/031/2004031.pdf>. Introduced by Gregory Barker MP.

8 GM Policy Statement, Hansard, 9 March 2004, col 1381 (Margaret Beckett).

9 DEFRA, News Release, 16 July 2004, available online at <http://www.defra.gov.uk/news/2004/040716a.htm>.

tence of GM and non-GM crops. This was released in July 2006¹⁰ and contained proposals relating to the establishment of a new redress scheme, DEFRA having concluded that it would be undesirable to require those seeking compensation to engage in litigation through the courts.¹¹ DEFRA predicts that the value of redress claims is likely to be ‘relatively low’.¹² Interested parties have been asked to comment by 20 October 2006.

- 4 As noted above, an administrative liability scheme already applies to damage to the environment arising from the escape or release from human control of GMOs. But the scheme is of very limited scope. Under Part VI of the Environmental Protection Act 1990, a person who contravenes the duties that the Act imposes in connection with (*inter alia*) the release or marketing of GMOs – for example, failure to comply with risk assessment requirements¹³ or releasing GMOs when there is a risk of damage to the environment as a consequence, despite the precautions that can be taken¹⁴ – may be convicted of an offence¹⁵ and required to take such steps as the court deems appropriate to remedy matters.¹⁶ The Act also provides for the Secretary of State to arrange for reasonable steps to be taken towards remedying harm caused by the offence and to recover the cost from any person convicted of it.¹⁷ Only a person convicted of one of the specified offences can be made to remedy, or bear the cost of remedying, the harm caused by the GMOs. Proceedings are by way of criminal prosecution initiated by the state, not civil action initiated by an individual suffering loss. Because of this, and the regime’s limited scope, I shall not consider it further in this report.

2. Causation

(a) *Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?*

- 5 Under the proposed redress scheme, claimants will only need to demonstrate a GM presence above 0.9% in their crop through no fault of their own. There is no need to establish the source of the GM presence, as would be necessary under a liability scheme.

10 DEFRA, *Consultation on proposals for managing the coexistence of GM, conventional and organic crops* (2006), available online at: <http://www.defra.gov.uk/corporate/consult/gmnongm-coexist/consultdoc.pdf>.

11 DEFRA (above fn. 10), § 161.

12 DEFRA (above fn. 10), § 139.

13 Sec. 108.

14 Sec. 109(4).

15 Sec. 118.

16 Sec. 120.

17 Sec. 121.

(b) How is the burden of proof distributed?

- 6 The burden of proof appears to rest on the claimant, but it is immaterial where the adventitious GM presence comes from.

(c) How are problems of multiple causes handled by the regime?

- 7 It is immaterial whether the GM presence has multiple causes. The claimant will only need to establish that it exceeds the threshold.

3. Type of regime

(a) If it is a fault-based liability regime, which are the parameters for determining fault, and how is the burden of proof being distributed?

- 8 The proposed redress scheme is not a fault-based liability regime.

(b) If it is a strict liability regime, is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, contributory negligence etc.)?

- 9 The proposed redress scheme is not a strict liability regime. Although the Consultation Paper talks of making GM seed companies 'strictly liable',¹⁸ it appears that this means only that they may be required to bear the cost of compensation payments irrespective of fault, and not that the claimant must identify a particular defendant who has caused the GM presence in question. The Consultation Paper notes that it may be possible in many cases to identify the company whose GM seed has given rise to the redress claim, but warns that 'a desire to target the redress burden must be weighed against the simplicity and cost of running the scheme.'¹⁹

(c) If it is not a liability regime as such, but any other variety of compensation mechanism, please describe its nature and functioning.

- 10 The precise mechanism by which the redress is to be delivered has yet to be determined (see below), but DEFRA has already given detailed consideration to eligibility criteria and the economic losses that would be recoverable. The latter is considered in Section I, 4 below.
- 11 As for eligibility, the farmer must be able to demonstrate that the GM presence beyond the 0.9% threshold was through no fault of their own. The consultation paper envisages that farmers may therefore need to produce evidence that non-GM seed was used, cropping plans were not altered in a way that

¹⁸ DEFRA (above fn. 10), §§ 165-166

¹⁹ DEFRA (above fn. 10), § 157.

compromised the required separation distance under the coexistence regime, etc.²⁰ It has yet to be determined whether a claimant's 'contributory negligence' should reduce the redress payable, or whether even a minor failure to meet a requirement, which it can be demonstrated would have had no meaningful effect, will necessarily invalidate the whole claim.²¹

(d) Do different criteria apply with regard to, on the one hand, crop production and, on the other, seed production?

- 12 The proposed redress scheme applies only to affected crops (GM presence > 0.9%). The DEFRA consultation paper says nothing about losses consequential on seed production being affected by GM.

(e) Is the liability regime exclusive, or does it overlap or coincide with any other specific or general liability regime in your country?

- 13 It is intended that the proposed redress scheme will exist alongside existing tort law remedies. Litigation will remain an option for claimants who do not want to use the redress scheme or are dissatisfied with the settlement offered.²²

4. Damage and remedies

(a) How is damage defined and measured under the system(s) you described?

- 14 Redress under the proposed scheme is for economic losses attributable to intended regulatory requirements, rather than ordinary market forces. The 'basic issue' is said to be that 'crops grown as non-GM (conventional or organic) could be worth less if they must be sold as „GM” because they have a GM presence above the EU 0.9% labelling threshold.²³ Redress will only be available if the GM presence in non-GM crops exceeds that threshold as it would not be appropriate to have different thresholds for redress and coexistence purposes.²⁴ The Consultation Paper implicitly rejects the view of some members of the AEBC²⁵ that compensation should also be available for economic loss arising from breach of the 0.1% threshold applied to organic produce by the major certifiers in the UK.

²⁰ DEFRA (above fn. 10), § 150.

²¹ DEFRA (above fn. 10), § 152.

²² DEFRA (above fn. 10), § 161.

²³ DEFRA (above fn. 10), § 137.

²⁴ DEFRA (above fn. 10), § 138. The GM presence is normally to be assessed on a 'whole field' basis: § 142. In the case of crops not sold by the field but individually, presence will be assessed by sampling the closest row to the GM crop, and then another halfway into the field. IF both tests are positive, the whole field is deemed 'GM', but if only the first test is positive, then only crops in the first half of the field are deemed 'GM': § 143.

²⁵ AEBC (above fn. 4), § 252.

- 15 Losses incurred ‘further up the supply chain’ are not to be covered, as the expectation is that normal contractual arrangements will govern the relationship between farmer and crop purchaser.²⁶

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 16 Proof of an actual GM presence above the 0.9% threshold is required, so losses resulting from the mere fear that the farmer’s products are no longer GM free are not covered.

(c) Where does the scheme draw the line between compensable and non-compensable losses?

- 17 Redress is limited to non-GM farmers who can demonstrate that there is a GM presence above 0.9% in their own crop. Consequently, other farmers who suffer losses because consumers fear that the entire region is affected are not eligible under the scheme.

(d) Which are the criteria for determining the amount of compensation?

- 18 Compensation should only be available for ‘direct financial loss from individual incidents.’²⁷ The general or default rule is that the compensable loss is the difference in crop value where a crop has to be sold as ‘GM’ instead of non-GM or organic.²⁸ If the crop has no value as ‘GM’, for example, because there is no GM market in which it can be sold to mitigate the loss, the loss is the whole of the non-GM or organic price that has to be foregone.²⁹ If the crop is intended as a conventional forage crop, it may still be fed to the farmer’s own animals without having to label associated products (meat, milk or eggs) as ‘GM’, and there is no necessary economic loss. If there should be economic loss because (e.g.) the farmer is subject to a supply contract that stipulates the use of non-GM feed, that would be attributable to the market rather than the regulatory requirement, and DEFRA does not consider that the Government should provide redress.³⁰ However, if the crop is intended to be an organic forage crop, EU organic standards prevent the farmer from feeding it to his own animals, and DEFRA foresees redress being made available in such

26 DEFRA (above fn. 10), § 149.

27 DEFRA (above fn. 10), § 139.

28 DEFRA (above fn. 10), § 140.

29 DEFRA (above fn. 10), § 141. The example given is sweetcorn maize grown as non-GM, where GM maize is grown only as a forage crop and there is no market in which it is traded.

30 DEFRA (above fn. 10), § 144.

situations.³¹ It has not yet formed an opinion on redress for additional losses such as costs flowing from testing the affected crop for GM presence, storing the crop separately, or longer than intended, or extra transport needs.³² Certain other losses it considers should not be part of the proposed redress scheme, for example, the loss of subsequent business from a buyer as a result of being unable to fulfil a previous supply contract, losses associated with consumer decisions to avoid or pay a reduced price for non-GM crops grown in the vicinity of GM crops, and the removal of organic certification. DEFRA considers that ‘losses resulting from voluntary standards or market-led decisions should not be covered by the redress mechanism, although compensation for these losses could still be sought through legal proceedings.’³³

(e) Is there a financial limit to liability?

- 19 The Consultation Paper does not propose any fixed financial limit to the redress payable, though, as the redress may well be restricted to loss of crop value, the value of the crop may denote the effective maximum of compensation payable.

(f) Is there any requirement for operators to provide for some sort of advance cover for potential losses (such as compulsory liability insurance), and/or are farmers required to take out first-party insurance which would cover such losses?

- 20 Whether the GM seed companies pay in advance (e.g. to establish a fund from which redress claims are paid) or on a case-by-case basis has yet to be resolved.³⁴

(g) Which procedures apply to obtain redress?

- 21 Assuming the proposed redress scheme is introduced by statute (see below), DEFRA envisages an adjudication process to determine the eligibility of redress claims, including an appeal or arbitration mechanism.³⁵ But it has not yet considered in detail the procedures that would apply, beyond saying that the arrangements should be ‘as simple as possible, to minimise the burden on farmers wishing to make a claim, to ensure that redress can be paid without undue delay, and to minimise bureaucracy and costs.’³⁶

31 DEFRA (above fn. 10), § 145.

32 DEFRA (above fn. 10), § 146.

33 DEFRA (above fn. 10), § 148

34 The options are set out at DEFRA (above fn. 10), § 166.

35 DEFRA (above fn. 10), §§ 151 and 168.

36 DEFRA (above fn. 10), § 167.

(h) Do these systems also include possibilities to obtain injunctive relief, either before or after admixture has happened?

- 22 The proposed redress scheme contains no provision for allowing the grant of injunctive relief, whether before or after admixture.

5. Compensation funds

(a) Are there any compensation funds?

- 23 As explained above, DEFRA has proposed the introduction of a redress scheme for economic losses suffered by non-GM farmers as a consequence of a GM presence in their crop of more than 0.9%. Eligibility criteria and potential entitlements are as set out above. In its Consultation Paper, DEFRA considers the option of both a voluntary industry led scheme³⁷ and a statutory redress mechanism.³⁸ The former would have the advantage that it could be established more quickly and provide more flexibility than a compulsory scheme, whilst being likely to provide an incentive for the industry to ensure that GM growers comply with the coexistence rules, and promoting public confidence.³⁹ But a statutory scheme would have to be considered if the industry failed to set up an acceptable scheme.⁴⁰ DEFRA has asked for views on which option should be preferred.

(b) How are these funds financed (e.g. in the form of a levy on sown or harvested GM crops, or a levy on the sale of GM seeds, or a levy on fees to organic certification bodies)? Which operator groups are the main contributors to the fund (e.g. GM crop growers, traditional farmers, seed importers or developers, biotech industry)?

- 24 This is a matter that is yet to be finally resolved, though the Government has consistently maintained that the compensation should be funded by the GM sector, not by the state or by non-GM farmers. However, as the Consultation Paper notes, funding by the GM sector could come from a number of different sources: (1) GM farmers who do not comply with the proposed coexistence measures, (2) all farmers growing GM crops, or (3) GM seed companies. The first option would have the advantage of targeting farmers most likely to be the cause of the excessive GM presence in the affected crops, and so provide an incentive to comply with the coexistence measures, but it would not cover cases where the excessive GM presence arises without fault, or where fault cannot be specifically attributed.⁴¹ The second option would spread the burden

³⁷ DEFRA (above fn. 10), §§ 162-4.

³⁸ DEFRA (above fn. 10), §§ 165-9.

³⁹ DEFRA (above fn. 10), § 162.

⁴⁰ DEFRA (above fn. 10), § 165.

⁴¹ DEFRA (above fn. 10), § 154.

evenly among all GM growers, but would provide no direct incentive for GM growers to comply with coexistence measures; it could also be said to penalise unfairly GM farmers who do comply.⁴² The third option would give the GM companies a clear incentive to ensure an effective coexistence regime (e.g. by recovering contractual indemnities from GM farmers who do not comply with the rules) and should increase public confidence.⁴³ It would be possible to apply the financial burden equally to all GM seed companies, but would be potentially fairer to do so on a differentiated basis (e.g. market share). Although it might be possible in many cases to identify the company whose GM seed gave rise to the redress claim, targeting the financial burden in such a way might result in undesirable costs and complexity.⁴⁴ Consultees have been asked for their views on such issues.

(c) Is there any contribution granted by the national or regional authorities?

- 25 No, the Government has consistently maintained that compensation must be funded by the GM sector, not by the state.

(d) Is the contribution to the fund mandatory or voluntary?

- 26 A voluntary industry-led scheme is still an option,⁴⁵ though the Government would consider a compulsory scheme if the industry did not set up a voluntary scheme, or its scheme was deemed unacceptable.⁴⁶

(e) Is a balance established between the money paid into the fund and expenses of the fund? If so, at which time intervals are levies adapted to the actual expenses?

- 27 This is a question of detail that has yet to be addressed.

(f) How are the funds operated? Which body is in charge of managing the fund and of deciding about justified claims? Which procedures apply to obtain compensation of loss?

- 28 The object is to ensure that claims are settled ‘fairly promptly’, reducing the cost, bureaucracy and uncertainty that would result if claims were left to be resolved through legal proceedings.⁴⁷

42 DEFRA (above fn. 10), § 155.

43 DEFRA (above fn. 10), § 156.

44 DEFRA (above fn. 10), § 157.

45 DEFRA (above fn. 10), §§ 162-4.

46 DEFRA (above fn. 10), § 165.

47 DEFRA (above fn. 10), § 147.

(g) *Are there any provisions for recourse against those responsible for the actual cause of the loss?*

- 29 As noted above, it remains an option to target the GM seed company responsible for the excessive GM presence, though the Consultation Paper warns of the cost and complexity that might result. There is no proposal to target individual GM farmers who are responsible, but, if the scheme is funded by the seed companies, it would appear to be open to them to provide for appropriate indemnities from individual farmers in their seed supply contracts.

6. Comparison to other specific liability or compensation regimes

- 30 So far as I can see, the proposed scheme would have no exact parallel in English law.

II. General Liability or other Compensation Schemes⁴⁸

1. Introduction

- 31 As noted above, the DEFRA Consultation Paper expressly contemplates the continued availability alongside the new redress scheme of existing remedies under the general law of tortious liability. The principal heads of claim would be (a) negligence, (b) public nuisance, (c) private nuisance, and (d) the rule in *Rylands v Fletcher*. (The last is regarded⁴⁹ as a subset of private nuisance but has its own distinct requirements.) These are all common law actions, but may be affected by statute insofar as the latter gives authority for the defendant's actions: statutory authorisation is a general defence to tortious liability, provided no reasonably preventable injury is caused.⁵⁰ In some circumstances, it may also be possible to rely on the statutory product liability claim under the Consumer Protection Act 1987 (implementing the EC Product Liability Directive), but I do not propose to address this here as the issues are substantially the same as those arising in other EU jurisdictions. Nor shall I consider the possibility of judicial review of administrative decisions relating to GMOs.⁵¹
- 32 Although the application of these common law liabilities to GM cross-pollination is 'untested and uncertain' in this country,⁵² the experience of other common law jurisdictions gives some indication of how the law might

48 See generally M. Lee/R. Burrell, *Liability for the Escape of GM Seeds: Pursuing the 'Victim'* (2002) 65 MLR 517 and C. Rodgers, *Liability for the Release of GMOs into the Environment: Exploring the Boundaries of Nuisance*, [2003] CLJ 371.

49 *Cambridge Water Co Ltd v Eastern Counties Leather plc* [1994] 2 AC 264.

50 *Geddis v Proprietors of Bann Reservoir* (1878) 3 App Cas 430.

51 On which, see *R v Secretary of State for the Environment, Transport and the Regions, ex p Watson* [1999] Env LR 310.

52 DEFRA (above fn. 10), 137.

develop here.⁵³ In the discussion below, particular attention will be paid to a recent decision of a Canadian court, *Hoffman v Monsanto Canada Inc*,⁵⁴ in which the arguability of various common law liabilities were considered in relation to a case of (alleged) GMO ‘contamination’ of canola (rapeseed) intended to be marked as organic. The issue arose in the course of the court’s consideration of the claimants’ application for the certification of a class action which they sought to bring on behalf of all organic grain farmers in the province of Saskatchewan. Certification of the class action was dependent on the claimants’ establishing that (*inter alia*) their statement of claim disclosed a reasonable cause of action against the defendants. For the purposes of the hearing, all the factual allegations in the claimants’ pleaded case were assumed to be true. Nevertheless, Smith J concluded that the statement of claim disclosed no reasonable cause of action in respect of any of the common law liabilities on which the claimants relied.⁵⁵ Though the facts alleged were sufficient to sustain claims under two statutory causes of action, which need not concern us here, Smith J dismissed the application for class certification on other grounds. The claimants have been granted leave to appeal.⁵⁶

(b) *Negligence*

- 33 Liability in negligence arises when (1) the defendant owes the claimant a duty of care, (2) the defendant breaches that duty, and (3) the claimant suffers proximate loss as a consequence. The defendant may be able to rely upon a general defence to tortious liability so as to reduce (in the case of contributory negligence) or extinguish his liability.
- 34 In English law, the existence of a duty of care requires that the claimant satisfy the threefold requirements of foreseeability, proximity and fairness, justice and reasonableness (or policy) set out in *Caparo Industries plc v Dickman*.⁵⁷ In established duty situations, however, there is no need to advert spe-

53 I shall not make specific mention of the case-law in the United States, as other Commonwealth jurisdictions tend to be a better guide to possible developments in English law. Relevant US cases include *In re StarLink Corn Products Liability Litigation*, *Kramer v Aventis CropScience USA Holding Inc* (2002) 212 F Supp (2d) 828 and *Sample v Monsanto Co* (2003) 283 F Supp (2d) 1088.

54 2005 *Saskatchewan Court of Queen’s Bench* (SKQB) 225, [2005] 7 *Western Weekly Reports* (WWR) 665. For background, see J Matthews Glenn, *Footloose: Civil Responsibility for GMO Gene Wandering in Canada*, (2004) 43 *Washburn LJ* 547.

55 In addition to the torts considered in the text below, the claimants had also sought to rely on trespass to land, but Smith J concluded that they could not succeed because the defendant had not directly interfered with the claimants’ land: [2005] 7 WWR 665 at [133].

56 *Hoffman v Monsanto Canada Inc*, 2005 SKCA 105, [2006] 5 WWR 400.

57 [1990] 2 AC 605. In *Customs and Excise Commissioners v Barclays Bank plc* [2006] UKHL 28, [2006] 3 WLR 1 the House of Lords observed that other ‘tests’ might also be

cifically to the threefold test, so express consideration of the test is in practice reserved for those cases in which the claimant alleges a novel category of duty.⁵⁸

- 35 In *Hoffman v Monsanto*,⁵⁹ it was conceded by the claimants that the duty of care on which they relied – to prevent or minimise the extent of adventitious presence of the defendants’ GM canola in their crops – fell into no established category and was therefore novel. As such, it had to be shown that their pleadings alleged reasonably foreseeable harm and relational proximity sufficient to establish a prima facie duty of care, and that there were no policy considerations that would bar or limit the imposition of such a duty.⁶⁰ Smith J expressed some doubt as to whether the pleadings were sufficient to support a claim for foreseeability, noting that the applicable organic standards (unlike those in Europe) made no mention of GMOs at the time that GM canola was first commercially released in Canada, but she was prepared to proceed on the assumption that the pleadings were adequate.⁶¹ However, she found that the pleaded facts were insufficient to establish the relational proximity necessary for a prima facie duty to arise, because they included no allegation of physical harm to themselves or their property, or any other factor that might support an argument of sufficient proximity.⁶² In addition, there were policy considerations that were sufficient to bar or limit the imposition of the alleged duty of care. First, the defendants’ receipt of prior federal government approval for the unconfined release of their GM canola varieties meant that imposition of a duty of care would conflict with express governmental policy.⁶³ Secondly, the claim was principally a claim for pure economic loss of a category not previously recognised by the Canadian courts: in effect, the alleged damage was not physical harm to the claimants’ crops but economic loss resulting from their alleged inability to meet the requirements of organic certifiers or foreign markets for organic canola. There was no allegation that GM canola was unhealthy or caused detrimental physical problems to humans or plants.⁶⁴ On the pleaded facts, the traditional policy arguments against the recovery of pure

employed in particular cases, but accepted that the *Caparo* principles provided ‘a convenient general framework’ for analysis (at [93] per Lord Mance).

58 Cf. *Customs and Excise Commissioners v Barclays Bank plc* [2006] 3 WLR 1 at [53] per Lord Rodger (‘a court faced with a novel situation must apply the threefold test’).

59 Above fn. 54.

60 The approach is very similar to that adopted in English law pursuant to the House of Lords’ decision in *Caparo v Dickman*.

61 [2005] 7 WWR 665 at [64]-[66].

62 [2005] 7 WWR 665 at [67] and [70].

63 [2005] 7 WWR 665 at [71]. It is submitted that this is a matter more properly considered under ‘breach of duty’.

64 [2005] 7 WWR 665 at [72].

economic loss – e.g. the fear of an indeterminate and unlimited liability⁶⁵ – were compelling reasons for excluding a duty of care.⁶⁶

- 36 The court's approach is not beyond criticism but it illustrates some of the potential difficulties that may obstruct GMO-related negligence claims in the common law. Perhaps the most controversial aspect of Smith J's analysis, underpinning her conclusions on both proximity and policy, is her treatment of the case as one of pure economic loss rather than physical damage.⁶⁷ Why should an unwanted GM presence in the claimant's crop not be treated as 'damage', and the claimant's losses as consequential rather than purely economic? It must be admitted, however, that not every physical change in the claimant's property warrants the conclusion that it has been damaged. In a case earlier this year,⁶⁸ the Court of Appeal ruled that physical changes in the claimant's body did not, on the facts, satisfy the damage requirement of the tort of negligence. Damage did not have to be substantial, but it had to be more than minimal.⁶⁹ On the facts, the pleural plaques of which the claimants complained were insufficiently significant: they were symptom-less, had no adverse effect on any bodily function, and being internal had no effect on appearance.⁷⁰ Although this was a case of (alleged) personal injury, the same principles undoubtedly apply to property damage. The question for the court would be whether a GM presence in non-GM crops as small as 0.1% could be considered 'more than minimal'. The stronger view, implicit in the court's approach in the pleural plaques case, is that regard should be had to the consequences that flow from the physical change, and that a loss of organic certification resulting from GM presence in the crop should be regarded as sufficiently significant to warrant the conclusion that it has been damaged.⁷¹ Nevertheless, what constitutes damage in the tort of negligence remains to be fully explored by the courts.
- 37 To be contrasted with the case considered above, where the farmer's losses result from actual GM presence in the crop, is the case where the losses result from its feared presence (e.g. by consumers). In such a case, there is certainly no physical damage, and the farmer's loss is purely economic. In English law, there is generally no duty to take reasonable care to avoid causing purely economic loss to another,⁷² and the only exceptions (e.g. voluntary assumption of

65 [2005] 7 WWR 665 at [77].

66 [2005] 7 WWR 665 at [80]-[81].

67 Cf. *Customs and Excise Commissioners v Barclays Bank plc* [2006] 3 WLR 1 at [31] per Lord Hoffmann ('In the case of personal or physical injury, reasonable foreseeability of harm is usually enough... to generate a duty of care.')

68 *Grieves v FT Everard & Sons Ltd* [2006] EWCA Civ 27.

69 [2006] EWCA Civ 27 at [19].

70 [2006] EWCA Civ 27 at [18].

71 *Contra*, M. Lee/R. Burrell (above fn. 48), 530.

72 This general exclusionary rule was recently affirmed by the House of Lords in *Customs and Excise Commissioners v Barclays Bank plc* [2006] 3 WLR 1.

responsibility) would not appear to be of application here. So a claim in such circumstances would be very unlikely to succeed.

- 38 If the claimant succeeds in establishing a duty of care, it must then be considered whether there was a breach of that duty on the facts. The defendant must be shown to have been at fault. This could well be an insuperable obstacle in cases where the GM farmer has fulfilled all his obligations under the proposed coexistence regime: doing what is required by statute cannot amount to negligence.⁷³ In such a case, it would appear to be necessary to identify negligence in the manner of his compliance with the obligations, assuming that they left room for discretion on the GM farmer's part, or some collateral negligence. Alternatively, it might be possible to prove fault by someone else, for example, the GM seed company. As noted above, however, the terms of the licence under which the company supplies the seed may preclude any finding of fault. An action may be possible, of course, where there is shown to have been a defect in the seed at the time of its supply, and this defect was responsible for damage to the non-GM crops, though it should be noted that it will be easier to sue under the Consumer Protection Act 1987, rather than for common law negligence, as liability under the statute is strict. But there may be circumstances in which the common law claim holds out more prospects of success, for example, where the risk in question was unknowable at the time of supply, raising the development risks defence under the statute, but the claimant complains of the seed companies' failure to warn of the danger, or recall the seeds, after it ought reasonably to have become aware of the risk.⁷⁴
- 39 The third requirement of a successful claim in negligence – causation of proximate loss – is considered below.

(c) Public nuisance

- 40 Public nuisance has been defined as 'an act not warranted by law or an omission to discharge a legal duty, which act or omission obstructs or causes inconvenience or damage to the public in the exercise of rights common to all Her Majesty's subjects.'⁷⁵ Ordinarily only a criminal offence, a public nuisance may give rise to civil liability if it causes the claimant to suffer some 'special damage', by which is meant damage different in kind – and not merely greater in amount – than that suffered by persons generally. In practice, it is unlikely that a liability relating to GM crops would arise in public nuisance except in circumstances where there was a concurrent liability in negligence or private nuisance.

⁷³ Cf. *Geddis v Proprietors of Bann Reservoir* (1878) 3 App Cas 430 (statutory authorisation).

⁷⁴ See, eg, *E Hobbs (Farms) Ltd v Baxenden Chemical Co Ltd* [1992] 1 Lloyd's Rep 54.

⁷⁵ J Stephen, *A Digest of the Criminal Law* (1877), 108 approved by Lord Bingham in *R v Rimmington* [2006] 1 AC 459 at [36].

(d) Private nuisance

- 41 A private nuisance is the unreasonable interference with the claimant's use or enjoyment of land. As it is 'a tort to land', it is actionable only by a person with an interest in the land affected.⁷⁶ In determining the reasonableness of any interference, the courts may take into account a wide variety of circumstances, including the duration and timing of the interference, its severity, the locality in which it occurs,⁷⁷ the defendant's motive, and whether or not the claimant was being unduly sensitive.⁷⁸ Regulatory consents, even if they do not *per se* give rise to a defence of statutory authorisation, may serve to 'crystallise' what is a reasonable land-use in the area in question.⁷⁹ It is not necessary to show that the claimant suffered 'damage': interference with his amenity interests will suffice. But the interference must be substantial.⁸⁰ If the interference is found to have been unreasonable, it is no defence that the defendant took all reasonable steps to reduce its effects. Private nuisances normally involve an element of continuity or repetition, but even a single occurrence can give rise to liability in appropriate circumstances (though the liability here is often indistinguishable from that in negligence). The successful claimant is *prima facie* entitled to an injunction to prevent the continuation or repetition of the nuisance in the future, as well as damages for harm already suffered.
- 42 Private nuisance, though not public nuisance, was amongst the claimants' pleaded causes of action in *Hoffmann v Monsanto*.⁸¹ The chief difficulty they

76 *Hunter v Canary Wharf Ltd* [1997] AC 655.

77 C. Rodgers (above fn. 48), 381 plausibly suggests that GM crop farming is more likely to give rise to liability in private nuisance if the area is one which has declared itself 'GM free' via collective land-use decisions made within the community.

78 See further *Network Rail Infrastructure Ltd v Morris (t/a Soundstar Studio)* [2004] EWCA Civ 172, [2004] Env LR 41.

79 *Gillingham Borough Council v Chatham and Medway Dock Co Ltd* [1993] QB 343. Cf. *Wheeler v Saunders* [1996] Ch 19. C. Rodgers (above fn. 48), 395 argues that the licensed planting of GM crops does not change the character of the area as such, or what it is reasonable land-use in it, but effects merely a subtle change in the nature of local agricultural production.

80 *Salvin v North Brancepeth Coal Co* [1873] LR 9 Ch App 705. In a well-known dictum, James LJ stated (p. 709) that the damage must be 'visible' and that 'scientific evidence, such as the microscope of the naturalist, or the tests of the chemist,' would not suffice to establish it: 'The damage must be such as can be shewn by a plain witness to a plain common jurymen.' Cf. Mellish LJ at p. 713: the damage must be such that 'every fairly instructed eye can really and clearly see it.' AEBC (above fn. 4) doubted whether adventitious GM presence would be visible in this way. However, a lack of visible damage does not preclude liability in private nuisance in other contexts (e.g. water pollution: see, e.g., *Cambridge Water Co Ltd v Eastern Counties Leather plc* [1994] 2 AC 264) and it is submitted that *Salvin* does not require visibility in a literal sense, only that the alleged damage manifests itself in some way that would be appreciable to an ordinary, informed person. See further C. Rodgers (above fn. 48), 382-7.

81 [2005] 7 WWR 665.

faced was that the defendants, as manufacturers of GM seeds but not the actual users, were only indirectly responsible for any GM presence in the claimants' crops. For the judge, this was an insuperable obstacle. She found that there were no pleaded facts that could support a finding that the defendants were the substantial cause of the alleged nuisance. They were not in occupation or control of the land on which their seeds were sown, and their mere sale and marketing of GM canola did not establish their responsibility for causing a nuisance that occurred only after its use by independent third parties.⁸² It may be noted, however, that Smith J declined to rule out the private nuisance claim on the basis that the claimants' alleged injury was insufficiently 'unreasonable' or 'substantial' to sustain a claim in private nuisance, or that their activities were hypersensitive, though she did not discount those arguments either, though she emphasised the difficulty the claimants might have in meeting them.⁸³ These issues would almost certainly be raised if a claim were to be made against a neighbouring GM farmer, rather than the seed company, though it has been plausibly suggested that organic farming – as a Government supported activity – is unlikely to be considered an abnormally sensitive use.⁸⁴

(e) *The Rule in Rylands v Fletcher*

- 43 In the classic formulation of Blackburn J, 'the person who for his own purposes brings on his lands and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril, and, if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape.'⁸⁵ He went on to say that the defendant could excuse himself by showing that the escape was owing to the claimant's default, *vis major*, or an act of God. The rule provides perhaps the best known example of strict liability in the English common law, but it is subject to a number of important pre-conditions which have been restrictively construed by the courts in the intervening years. First, the rule applies only to dangerous things, whose presence on the defendant's land creates 'an exceptionally high risk of danger or mischief if there should be an escape, however unlikely an escape may have been thought to be.'⁸⁶ Secondly, the damage must be attributable to the thing's escape from the land, not merely from the defendant's control. The rule does not apply to damage suffered on rather than outside the land.⁸⁷ Thirdly, the defendant must have been engaging in a non-natural use of land. This means not

82 [2005] 7 WWR 665 at [122].

83 [2005] 7 WWR 665 at [107]-[108].

84 AEBC (above fn. 4), § 268. See further C. Rodger (above fn. 48), 392-4. The question of hypersensitivity was raised by Buxton LJ in *R v Secretary of State for the Environment, Transport and the Regions, ex p Watson* [1999] Env LR 310, 323 but not answered.

85 *Fletcher v Rylands* (1866) LR 1 Ex 265, 279-280 approved by the House of Lords in *Rylands v Fletcher* (1868) LR 3 HL 330.

86 *Transco plc v Stockport MBC* [2004] 2 AC 1 at [10] per Lord Bingham.

87 *Read v J Lyons & Co* [1947] AC 156

only that the thing which escapes was not naturally on his land, but was brought onto it by the defendant, or accumulated there by virtue of his activities, but also that the defendant's use of land was 'extraordinary and unusual.'⁸⁸ According to the classic test, it must be a 'special use... not merely be the ordinary use of the land or such a use as is proper for the general benefit of the community.'⁸⁹ The exception relating to public benefit was doubted by the House of Lords in the *Cambridge Water* case,⁹⁰ but the expression of the test in terms of 'ordinary' rather than 'natural' use has since then received the Law Lords' approval.⁹¹

- 44 Although it was for a long time thought to represent an independent category of liability, the House of Lords ruled in the *Cambridge Water* case that liability under *Rylands v Fletcher* was a species of liability in private nuisance, albeit dealing with isolated escapes from land rather than continuous or repetitive interference. It therefore appears to be subject to the same limitations as follow from the recognition of private nuisance as a tort to land, namely, that it provides no remedy for personal injury as such, and that it is actionable only by a person with an interest in the land affected.
- 45 The rule was amongst those causes of action relied upon by the claimants in *Hoffman v Monsanto*. Because the action was against the seed companies, not GM farmers, the claimants were obliged to argue that the relevant 'escape' was the defendants' general commercial release of GM canola. Smith J had a comparatively easy task to conclude that this did not constitute an 'escape' under the rule in *Rylands v Fletcher*.⁹² In the circumstances, it was not necessary for her to go on to consider whether GM canola could be considered a 'dangerous' substance, or whether the use of land for growing GM canola was 'non-natural', but these would undoubtedly pose a very significant hurdle for the claimant even in an action against the farmer from whose land the GM canola had undoubtedly escaped.⁹³

88 *Transco plc v Stockport MBC* [2004] 2 AC 1 at [11] per Lord Bingham.

89 *Rickards v Lothian* [1913] AC 263, 280.

90 *Cambridge Water Co Ltd v Eastern Counties Leather plc* [1994] 2 AC 264, 308-9 per Lord Goff.

91 *Transco plc v Stockport MBC* [2004] 2 AC 1 at [11] per Lord Bingham.

92 [2005] 7 WWR 665 at [96]-[97].

93 See further M. Lee/R. Burrell (above fn. 48), 532-3 and C. Rodgers (above fn. 48), 377 ('improbable' that growing GM crops would be seen as a non-natural use). Rodgers also questions whether *Rylands v Fletcher* applies to escapes which are not isolated, but Lord Goff in *Cambridge Water Co Ltd v Eastern Counties Leather plc* [1994] 2 AC 264, 306 observed that the rule was not limited in that respect.

2. Causation

(a) Which criteria apply with respect to the establishment of the causal link between the alleged damage and the presence of the GM crop concerned?

- 46 The general law of tortious liability applies. The presence of the GM crop must be shown to have caused or at least to have made a material contribution to the damage,⁹⁴ or – conceivably – to have made a material contribution *to the risk* that the damage might occur.⁹⁵ The claimant must normally show that the damage would not have occurred *but for* the conduct alleged to be tortious, and that it was of a type that was reasonably foreseeable.⁹⁶

(b) How is the burden of proof distributed?

- 47 At common law, the burden of proof always rests on the claimant.

(c) How are problems of multiple causes handled by the general regime?

- 48 In its Consultation Paper, DEFRA noted that there might in some cases be a problem establishing who was the proper defendant,⁹⁷ apparently having in mind a situation where there is more than one possible source of the GM presence. According to normal principles of tort law, where two sources of a harmful thing combine to cause the claimant injury, and the defendant is responsible for one of the sources, he can be held liable on the basis of his material contribution to the claimant's injury, without having to show that the injury would not have occurred but for his contribution.⁹⁸ Damages are then awarded on a proportionate basis, according to the extent of the defendant's contribution to the injury insofar as this can be assessed; if necessary, a surrogate criterion may be employed (e.g. the length of time the claimant was exposed to each source).⁹⁹
- 49 Where the GM presence could potentially come from more than one source, and it is disputed whether or not it comes (wholly or partially) from the source for which the defendant is responsible, the normal approach suggests that the claimant is required to prove the defendant's contribution to the presence on the balance of probabilities.¹⁰⁰ However, by way of exception to the general

94 *Bonnington Castings Ltd v Wardlaw* [1956] AC 613.

95 *McGhee v National Coal Board* [1973] 1 WLR 1; *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32. See further II, 2(c) below.

96 *Overseas Tankship (UK) Ltd v Morts Dock & Engineering Co Ltd, The Wagon Mound* [1961] AC 388. This rule applies even under the strict liability rule in *Rylands v Fletcher: Cambridge Water Co Ltd v Eastern Counties Leather plc* [1994] 2 AC 264.

97 DEFRA (above fn. 10), 137.

98 *Bonnington Castings Ltd v Wardlaw* [1956] AC 613.

99 *Holtby v Brigham & Cowan (Hull) Ltd* [2000] 3 All ER 421.

100 Cf. *Wilsher v Essex Area Health Authority* [1988] AC 1074.

approach, it is sufficient in some cases that the defendant materially increased the risk of the claimant's injury, even if it cannot be shown on the balance of probabilities that he actually contributed to the injury.¹⁰¹ The exception is of uncertain scope, and it cannot be lightly assumed that it would be applied to liability for GMOs. But the House of Lords has recently affirmed that the principle applies not just where all sources of the risk were tortious,¹⁰² or – if not all tortious – were at least all within the defendant's control,¹⁰³ but also where there were a number of quite independent tortious and non-tortious exposures to the risk, and even if part of the exposure was the claimant's own fault.¹⁰⁴ Quite how far the courts are willing to take the exception is at present rather unclear, but there is certainly a possibility that it might be applied in a case where the GM presence might have been caused by any one of several GM farmers in the claimant's vicinity, but it cannot be established against any of them individually that they were more likely than not to have contributed.¹⁰⁵ It should be noted, however, that liability under the exception is attributed on a proportionate basis, relative to the extent of the defendant's contribution to the risk.¹⁰⁶

3. Standard of liability

(a) In the case of fault-based liability, which are the parameters for determining fault and how is the burden of proof being distributed?

- 50 Fault is established by reference to the standards of the reasonable person, balancing the probability of harm resulting from the activity in question, and the likely gravity of that harm if it should result, against the cost to the defendant of taking precautions against the risk, and activity's social utility. What is expected of the reasonable person may also be affected by what is common practice in the area of activity in question, while – as previously noted – statutory requirements or authorisations may serve to negate any finding of fault on the facts. But if it is reasonable to expect the statutory requirements to be fulfilled without causing the claimant damage, yet the defendant chooses to fulfil them in such a way that damage results, that *prima facie* constitutes fault.¹⁰⁷ Nevertheless, it has been argued that proving fault in the area with which we are concerned will be 'difficult' as 'it is in the nature of „reasonable" GM farming techniques that they will bring about cross-pollination.'¹⁰⁸

101 *McGhee v National Coal Board* [1973] 1 WLR 1; *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32.

102 *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32.

103 *McGhee v National Coal Board* [1973] 1 WLR 1.

104 *Barker v Corus UK Ltd* [2006] UKHL 20, [2006] 2 WLR 1027.

105 Cf. *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32.

106 *Barker v Corus UK Ltd* [2006] UKHL 20, [2006] 2 WLR 1027.

107 *Geddis v Proprietors of Bann Reservoir* (1878) 3 App Cas 430.

108 M. Lee/R. Burrell (above fn. 48), 530.

(b) To the extent a general strict liability regime (or a specific strict liability regime, either due to its broad scope or by analogy) may be applicable, please describe its requirements for establishing liability. Is there still a set of defences available to the actor (for instance 'acts of God', wrongful acts or omissions of third parties, etc.)?

- 51 It is sometimes said that liability in nuisance is strict, in that it is no defence that the defendant took all reasonable care to reduce the level of interference, but the better view is that fault of some kind is entailed by a finding that the interference is unreasonable.¹⁰⁹ The rule in *Rylands v Fletcher* is therefore the only common law strict liability that might be relied upon here. Its requirements have been discussed above. As noted there, the range of available defences includes the claimant's wrongful act, *vis major* (i.e. the intervention of an independent third party that the defendant could not reasonably have been expected to prevent¹¹⁰), and act of God.¹¹¹
- 52 As also noted above, the statutory product liability regime under Part 1 of the Consumer Protection Act 1987 may also be applicable in some cases, but this merely implements the EC Product Liability Directive so I have not considered it at length in this report.

(c) Does your jurisdiction provide for special rules applicable to cases of nuisance or similar neighbourhood problems?

- 53 As noted above, there are specific causes of action for both public and private nuisance, but there are no special rules of civil liability applying to such situations in the sense in which I think the question intends.

4. Damage and remedies

(a) How is damage defined and measured?

- 54 What constitutes actionable damage differs according to the tort in question. In negligence, the claimant must normally establish physical injury to his person or property; liability for pure economic loss is restricted to a very considerable extent by manipulation of the duty of care concept.¹¹² In nuisance – both public and private – there is no requirement that the claimant prove

¹⁰⁹ See further A. Mullis/K. Oliphant, *Torts* (3rd edn. 2004), 284-5. The matter cannot, however, be regarded as free from doubt, and the contrary view is asserted by AEBC (above fn. 4), § 267.

¹¹⁰ See further *Perry v Kendrick's Transport Ltd* [1956] 1 WLR 85.

¹¹¹ See, e.g., *Nichols v Marsland* (1876) 2 Ex D 1.

¹¹² See no. 37 above. It is not necessary for the purposes of this report to advert to the special issues thrown up by cases of mental injury.

physical damage, and the recovery of pure economic loss raises no special problems.¹¹³

- 55 In private nuisance, the bare invasion of the claimant's land by things emanating from the defendant's is actionable, even if no damage results, though in such a case the claimant may be restricted to nominal damages. In such a case, the likely reason for bringing a claim would be obtaining an injunction, though it should be noted that damages for future losses may be awarded in lieu of an injunction if the claimant's loss is small, assessable in money terms, adequately compensated by a small money payment, and it would be oppressive to the defendant to grant the injunction.¹¹⁴ It is possible to imagine such issues arising in a case where GM seeds are blown onto the claimant's land from the defendant's, but the claimant cannot yet demonstrate any consequential loss.
- 56 A few exceptional torts, including trespass to land, are actionable per se, meaning that liability arises for the mere interference with the claimant's protected interests (e.g. the mere invasion of the claimant's land), and there is no need to prove any consequential harm. However, the 'invasion' of the claimant's land by GMOs is unlikely to be regarded as a trespass unless the GMOs were deliberately released onto the land,¹¹⁵ and the more likely causes of action are in nuisance or (if damage results) negligence.

(b) Is the loss of a farmer whose customers only fear that his products are no longer GMO free also recognized as compensable, or is proof of actual admixture required?

- 57 I do not think a claim would be possible in negligence, because proof of actual damage is usually necessary, and the case does not fall into any of the exceptional categories where pure economic loss is recoverable. I am also inclined to doubt that liability would arise under the rule in *Rylands v Fletcher*, because there may well have been no (proven) escape from the defendant's land, and, even if there has been, it is not the escape that causes the loss but the reaction of the claimant's customers. Whether such loss is recoverable in public or private nuisance is a difficult question to answer on the current state of the authorities. I would have to say that the issue is untested and uncertain.

113 For examples of recovery of pure economic loss, see *Rose v Miles* (1815) 4 M&S 101 (public nuisance); *Andrae v Selfridge & Co Ltd* [1938] Ch 1 (private nuisance).

114 Supreme Court Act 1981, sec. 50; *Shelfer v City of London Electric Lighting Co* [1895] 1 Ch 287.

115 See *Hoffman v Monsanto* [2005] 7 WWR 665 at [133].

(c) Where does your legal system draw the line between compensable and non-compensable losses?

- 58 I would give the same answer as to (b) above, adding that – in negligence – it is not enough to prove that the defendant has damaged property belonging to a third party; the ability to sue normally rests on damage to one’s own property.¹¹⁶

(d) Which are the criteria for determining the amount of compensation in general?

- 59 The normal measure of damages in cases of property damage is the item’s diminution in value. In the case of commodities, this is normally determined by reference to prices in the market in which the commodity is traded. If as a result of the tort the property is worth nothing, its previous value is in principle recoverable in its entirety. In exceptional cases, the defendant may be entitled to damages on a ‘cost of cure’ basis, but it is hard to see how that would be relevant in the present context as the admixture of GM and non-GM crops cannot simply be reversed.
- 60 Applying these principles to losses resulting from the deliberate release of GMOs, it should first be recalled that many cases of loss of crop value will be covered by DEFRA’s proposed redress scheme. It seems that common law actions will in practice be confined to cases where the claimant’s loss is not covered, or is inadequately compensated, by the scheme. As the scheme applies a 0.9% threshold for GM presence, it is the common law that will provide the only remedy for losses resulting from a lower GM presence whose effect is that a crop intended to be sold as ‘organic’ now has to be sold as ‘non-organic’ (though not as ‘GM’). In principle, the damages will represent the difference between the crop’s market value as organic and its market value as non-organic. If it is necessary to incur additional transport or storage costs, these would in principle be recoverable too. It is hard to imagine circumstances in which the crop would have *no* market as non-organic. In the case of a claimant who is non-GM and non-organic, but has to market his crop as ‘GM’, losses that fall outside the scope of the proposed redress scheme but may be recoverable at common law might include, for example, losses flowing from the cancellation of a supply contract by a purchaser who insists on contracting with only non-GM farmers. It would have to be shown, however, that such a loss was reasonably foreseeable. The law normally allows a lesser degree of foreseeability in actions for tort (‘not far-fetched’) in those for breach of contract (‘a serious possibility’),¹¹⁷ though it has been suggested that the ‘contract’ approach should apply in cases of economic loss irrespec-

116 *Spartan Steel Ltd v Martin & Co (Contractors) Ltd* [1973] QB 27.

117 *C Czarnikow Ltd v Koufos* [1969] AC 350.

tive of the cause of action.¹¹⁸ If this is the case, it would make it problematic to recover losses under an unusual contract of which the defendant has no actual or presumed knowledge.¹¹⁹

(e) Is there a financial limit to liability, or is there any rule to mitigate damages once liability is established?

- 61 There is no financial limit to liability, but it is a general principle that the claimant must take reasonable steps to mitigate his loss.

(f) Are operators under any general or specific duty to obtain liability insurance or to provide for other advance cover for potential liability?

- 62 There is no such duty.

(g) Which procedures apply to obtain redress in such cases?

- 63 The ordinary rules of civil procedure apply.

(h) Are there any general compensation schemes that may be applicable in such cases, and how do they operate?

- 64 There are no general compensation schemes that may be applicable in such cases. In theory, it would be open to non-GM farmers to insure themselves against the risk of losses attributable to GMOs, but it has been reported that the principal insurer in the field, NFU Mutual, has refused to insure farmers against economic or environmental harm from GMOs.¹²⁰

III. Sampling and testing costs

1. Are there any specific rules in your jurisdiction which cover costs associated with sampling and testing of GMO presence in other products, either in the case of justified suspicion of GMO presence or in the case of general monitoring?

- 65 There are no special rules about this in English law, but it may be noted that the recoverability of costs flowing from testing the affected crop for GM presence may be allowed under DEFRA's proposed redress scheme, though DE-

¹¹⁸ *H Parsons (Livestock) Ltd v Uttley, Ingham & Co Ltd* [1978] QB 791.

¹¹⁹ Cf. *Hadley v Baxendale* (1854) 9 Ex Ch 341.

¹²⁰ Friends of the Earth, Top Insurer Says No to Gm Pollution Cover, 17 Feb 2000; FARM press release, No one will insure GM crops, 7 Oct 2003.

FRA has not yet formed an opinion on whether such losses should be covered.¹²¹

2. If there are no specific provisions, are there industry-based rules? Or do general rules apply?

- 66 General tort law applies. The starting point is that precautionary expenditure incurred in advance of any physical damage occurring is pure economic loss and is not normally recoverable. So it seems there could be no claim for the cost of sampling and testing non-GM crops for GM presence if there is in fact no such presence. If the testing does reveal a GM presence, however, there would seem to be no principled objection to the recovery of the costs.

3. Are such costs recoverable only if the tests prove actual GMO presence, or even without such outcome?

- 67 As noted above, such costs would appear to be recoverable at common law only if the tests prove actual GMO presence. This is also the case under the DEFRA proposal as eligibility under the redress scheme will be limited to farmers who can show a GM presence in their crop above the 0.9% threshold.

IV. Cross-border issues

1. Are there any special jurisdictional or conflict of laws rules in force or planned in your jurisdiction which apply to harm of the kind described in the introduction to this questionnaire, or are there any other specific provisions aimed at resolving cross-border cases?

- 68 In an island nation, cross-border admixture of GM and non-GM crops is unlikely, and even if it were to occur there would seem to be very significant obstacles in the way of a claim (e.g. proving a particular defendant caused the GM presence). So far as I know, there are no special rules in force or planned of the type described.

2. If there are no such specific rules, how would the general rules of jurisdiction and choice of law apply to cases of such kind in your country?

- 69 In the United Kingdom, most jurisdictional matters are regulated under the Brussels regime. Where the defendant is domiciled in a country where this does not apply, jurisdiction is determined by common law and based on the proper service of a claim form, either on a defendant present in the jurisdiction, or, where tortious damage is sustained in the jurisdiction, or results from

¹²¹DEFRA (above fn. 10), § 146.

an act committed within the jurisdiction, on a defendant located abroad.¹²² Under the Private International Law (Miscellaneous Provisions) Act 1995, the general rule is that the applicable law is the law of the country in which the events constituting the tort in question occur.¹²³ Where elements of those events occur in different countries, the applicable law under the general rule is, in a property damage claim, the law of the country where the property was when it was damaged,¹²⁴ and, in a claim for pure economic loss, the law of the country in which the most significant element or elements of those events occurred.¹²⁵ The general rule may be displaced if the significance of the factors which connect the tort with some other country make it substantially more appropriate to apply that country's law.¹²⁶

- 70 As noted above, it seems unlikely that problems arising from cross-border admixture of GM and non-GM crops will arise in the UK, though it is conceivable that private international law issues might arise in exceptional cases of GMO liability (e.g. in an action against a GM seed company who is not present in the UK).

122 Civil Procedure Rules, rule 6.20(8). The leave of the court is required if the claimant wishes to serve the claim form abroad.

123 Sec. 11(1).

124 Sec. 11(2)(b).

125 Sec. 11(2)(c).

126 Sec. 12.

