



European Centre of Tort and Insurance Law

Research Unit for European Tort Law
Austrian Academy of Sciences



Bernhard A. Koch (ed.)

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

Reports

April 2007 / Contract 30-CE-0063869/00-28

Executive Summary

Executive Summary

- 1 This study focuses on how to respond to losses incurred by conventional or organic farmers due to the presence of genetically modified organisms (GMOs) in their crops, primarily from a tort law perspective. It is assumed that the presence of these GMOs results either directly or indirectly from the commercial cultivation of GM crops which are approved for this purpose according to EU legislation.
- 2 Only economic losses such as a reduction of the market price or costs of testing crops are covered, whereas personal injury or damage to property as such (other than harm to the field itself or to the crops thereon) shall be disregarded. Damage to the environment in a narrower sense, for example the potentially detrimental impact on biodiversity, will equally not be addressed.
- 3 The losses under survey here need not be very significant – in a typical case, the conventional crops will not sell at a substantially higher price than their GM counterparts, otherwise the latter's cultivation would not be economically reasonable in the first place. The loss suffered by the farmer on whose field admixture occurred will therefore generally be based upon that price difference if her produce can still be sold on the GM market. Costs of testing or of entering that market (such as efforts to find a new buyer) will add thereto, however. More substantial damage is imaginable, for example, for organic farmers who may lose their organic certification, or with respect to consequential losses incurred further down the production or distribution chain.
- 4 In order to define the extent of liability, one crucial decision that all jurisdictions invariably have to make is whether claimants shall also recover those losses which are caused by admixture of food or feed production below the EU threshold for GMO labelling, which is set at 0.9%. Since the produce would not have to be labelled GM in such cases, there should typically be no difference in the price and hence no loss. However, the farmer may be under a contractual obligation to a third party, for example, to deliver crops with an even higher degree of purity. The question therefore is whether the legal system will indemnify such losses as well even if the general marketability of the crops is given. The answer to this question is not predetermined by the fundamentals of tort law – it is the result of balancing the interests involved, and as with any weighing process, the outcome is not entirely predictable.

- 5 The typical cause of any such losses, whether admixture remains below or exceeds the threshold, will be gene flow from a field where GM crops are being cultivated. Alternatively, for example, the seeds used by the conventional farmer may have been impure, but there are other imaginable sources of admixture (e.g. during harvest, storage, transportation, outcrossing with feral crop populations, etc.).
- 6 In order to find out how the legal systems of all EU Member States currently deal with such cases and what solutions they offer to indemnify non-GM farmers, experts in all jurisdictions have been consulted who have authored country reports based on a standardized questionnaire. Norway and Switzerland were also included in the survey. Summaries of all country reports offer a first overview of the more comprehensive submissions, which form Annex I to this report. In addition to these academic evaluations, feedback from all concerned governments was collected, particularly with an eye to future plans. Furthermore, a paper analyzing these problems from a law and economics perspective was produced by experts in that field. Finally, insurance practitioners also presented the position of their industry.
- 7 On the basis of these materials, a general report was drafted which will not only provide a comparative analysis of the status quo throughout Europe, but also address policy questions, in particular with an eye to whether the existing situation calls for efforts to harmonize the current laws.
- 8 The general report starts out with examining possible ways to allocate the risk. After an assessment of the kind of risks this study is concerned about, the report proceeds from the basic principle that losses may only be shifted onto someone else if law offers good reasons to do so. Initially and by definition inevitably, it will always be the immediate victim who is the first loss-bearer. Unless the legal system offers indemnification by way of tortious liability or on other grounds, or by granting awards under a compensation fund or other redress scheme, the immediate victim will also be left with her loss in the long run. That in itself does not suffice as a reason to award compensation, however – law is based upon a balancing of competing interests rather than an unconditional recognition of individual claims.
- 9 The report goes on to analyze tort law as the classic route on which all legal systems offer compensation subject to their specific requirements. Apart from the immediate neighbour who cultivates GM crops, possible defendants in a tort action include, for example, all other GM farmers in the area, seed producers or distributors, those in charge of farming equipment, as well as the authorities whose licenses or permits made the GM cultivation admissible. If the

requirements of a tort claim against more than one of them are fulfilled, the victim can typically sue either one of them to recover her full damage. It is then up to the defendant to seek contribution from the others by way of recourse.

- 10 However, these tort law requirements vary substantially throughout Europe, which may lead to different outcomes even in comparable fact settings. Some legal systems make a difference between economic loss which is a mere consequence of preceding damage to the person or to tangible property of the victim on the one hand and so-called “pure” economic loss which affects the victim’s assets directly without any intermediary harm to her person or other property. This is for example true in Austria, Cyprus, England, Finland, Ireland, Norway, Poland, Portugal, Sweden, and Switzerland. However, others do not make such a distinction. This difference is therefore crucial, e.g., for determining whether a reduction of the market price is compensable if it is the result of customer fear that the crops may be GM, even if no actual admixture had occurred. It may also be relevant if one should conclude that GM crops growing in a non-GM field are no damage to the field or to its non-GM crops, but merely to the farmer’s proceeds.
- 11 Even if the recognition of the loss should not pose a problem, the claimant may nevertheless fail due to difficulties in proving its cause. Jurisdictions are more or less generous in this respect, not only as far as procedural rules are concerned, but also when it comes to determining who should bear the consequences in case of doubt, be it with respect to a single event or to multiple possible causes. The standard of proof that claimants have to meet ranges from „more likely than not” (e.g. in Cyprus, England, Ireland, and Norway) to almost certainty (for example in Austria and Belgium).
- 12 Ultimately, jurisdictions will handle the claim either under traditional fault concepts by evaluating the defendant’s conduct, under a strict liability regime which is irrespective of blameworthy behaviour attributable to the defendant, or under any hybrid basis of liability in between. Defences may or may not reduce or exclude liability, which further diversifies the range of possible outcomes in the European overview.
- 13 In all jurisdictions, special provisions addressing damage caused to neighbouring land may come into play as well. Since these are intended to find a compromise between two conflicting interests which per se are of the same value, they seem to be at least one model to consider for developing co-existence rules in the GMO case scenario. However, those rules also differ throughout Europe, even with respect to their theoretical basis. They are by

and large in accord, however, that an interference with neighbouring land must be unusual and unreasonable in light of the area and other circumstances in order to provide for compensation.

- 14 While some countries have decided to maintain traditional tort law rules including their inherent uncertainties, other jurisdictions such as Austria, Germany, Poland or Switzerland, have introduced special strict liability regimes which apply specifically (though maybe not exclusively) to the kind of problems under survey here. Typically, those countries who opted in favour of specific legislation did so in order to make access to compensation easier, or – in other words – to shift the economic risks of GM farming onto those who pursue it. In those countries, GM farmers are much more likely to be liable towards their non-GM neighbours than in other jurisdictions even though the facts of the case may be identical. One way of doing so is to assign such cases to the existing regime for neighbourhood conflicts coupled with defining certain requirements thereof as given. This was done in Germany, for example. Other countries such as Finland or Norway chose to shift these matters at least in part into their general environmental liability regimes, which invariably exceed the scope of the Environmental Liability Directive, above all by also addressing losses of individuals.
- 15 Whether or not any special tort law rules apply, fault liability nevertheless remains the default rule throughout Europe which claimants can resort to alternatively or even cumulatively (though not beyond their actual loss, of course). This multi-layer system will inevitably resist harmonization efforts on just one level since backdoors and detours will always lead to the other(s).
- 16 Leaving aside existing differences between European jurisdictions, tort law is certainly one possible basis for proceeding to a more harmonious solution for non-GM farmers whose crops were mixed with GMOs. However, certain limits will always have to be taken into account which are not inherent in tort law proper, but inseparably connected thereto. Tort claims are traditionally administered by regular courts of law, and the procedure to obtain compensation before them can be cumbersome, time-consuming and costly. Even if the plaintiffs succeed at the end of this process, they may still not be able to collect damages from the defendants if the latter do not hold sufficient funds to pay their dues.
- 17 Furthermore, before focusing on tort law as a compensation model for the damage under survey here, one should also bear in mind that the primary function of tort law is to compensate losses and not to prevent them. Even though the latter were desirable, other areas of the law offer better tools to

achieve that. Differences in technical or administrative rules on co-existence which are designed *inter alia* to avoid harm will most likely have a greater impact on the feasibility to cultivate GM crops and the protection of non-GM farmers from GMO admixture than the existing differences in liability rules, which are all meant to step in once segregation measures have failed. Harmonization of liability would therefore only make sense after these *ex ante* aspects of coexistence are well-defined and uniform throughout Europe.

- 18 Even if all that were taken care of, a true harmonization of liability is far from guaranteed: European jurisdictions have each developed an individual claims culture and a distinct compensation culture. Some are more open towards the idea of national solidarity and collective risk-sharing, others still put considerable emphasis on a more individualistic approach. Imposing uniform rules for a comparatively narrow case scenario such as the one envisaged here may lead to a solution which may not be available under all existing tort laws, even though it will necessarily have to build upon and fit into at least the more fundamental concepts thereof. Tort law language may alone lead to complications, as the technical terms that unavoidably will have to be used are understood by the respective jurisdiction in the way it has evolved there, with all its distinct features and interactions with other aspects that the GMO scheme may not specifically address. Attempting to find a uniform standard for indemnifying losses caused by gene flow may thereby risk an admixture of tort law regimes even within one single Member State. Full harmonization cannot be achieved anyhow unless tort law is harmonized in a more general way which applies beyond singular case settings, and this does not seem to be an option for the time being.
- 19 The study also analyzes whether and to what extent the insurance market can contribute to improving coexistence between GM and non-GM farming by providing for cover against the losses under survey here.
- 20 One option could be via liability insurance, which could cushion in particular some practical problems of tort law by accelerating access to payments and, even more importantly, by absorbing the risk (to the extent of the policy limit) that the tortfeasor individually is unable to compensate the claimant. However, such third-party insurance awards will only be available if the insured is actually liable, i.e. if all substantive requirements of tort law are met, so that the complications and differences in that respect remain unresolved.
- 21 Alternatively, non-GM farmers would not have to resort to tort law at all if their losses were covered by their own farm (or other first-party) insurance. While this would require farmers to contribute to providing cover for their

own damage (which they already do for various other risks), by expanding the risk pool the extent of the said contribution could be significantly reduced as compared to cases where the non-GM farmers may be left alone with their full loss. This may well be the case if there is no other way that leads to compensation, for example due to difficulties of proving one or more tort law requirements, or because the applicable national system denies liability for other reasons, in particular if the cultivation of GM crops was done in accordance with the applicable farming standards in force at the time.

- 22 First-party insurance has the additional advantage for the victim that her peculiar risk is taken care off: She should know best what losses she may suffer, and she can therefore (at least in theory) buy cover that is tailor-made to her situation. Payments can be even faster than under a liability insurance scheme with direct claims, because the insured risk focuses on the occurrence of the harm and (at least in general) not on its cause, even though certain risks may be excluded. This is not the only reason why this type of insurance may be the most cost-efficient regime.
- 23 Whether third- or first-party insurance, both allow the pooling of risks among a larger group of people exposed thereto, and it is even bigger if taking out such cover is made mandatory. The insurer can tailor its products according to the various aspects of the risk. At least in theory, for example, those who run a higher risk will typically pay higher premiums (though not necessarily so, and it is certainly not a linear correlation): In case of liability insurance, for example, those who cultivate crops where mixing is more likely will rather pay more per area than those who plant crops less prone to mixing. Apart from more general geographic criteria, it may also be a price-determinant whether the farmer operates in a GM or non-GM environment.
- 24 Insurers may be lacking crucial information for properly assessing the risk. Premia may therefore be either too high (and thereby deter potential clients from buying such cover, or lead to an unjustified increase of production costs) or too low (which ultimately will have an impact on the insurers' balance sheets). The policies may include limitations of certain risks or other restrictions. The insured amount may not suffice to cover the full loss owing to manifold reasons and possibly leading to serious consequences. Those at risk may not be aware of it at all or have false assumptions of the extent of the risk: Conventional or organic farmers simply may not know that someone in their vicinity has started to cultivate GM crops. This may seduce them out of buying first-party insurance at all or only subject to unreasonable limitations. Such problems could be remedied by making insurance compulsory, which

only makes sense if there is an adequate range of suitable insurance products on the market to meet the (artificially increased) demand, though.

- 25 At present, neither liability nor first-party insurance products covering GMO risks seem to be available on the markets under survey. Problems for insurers in this respect can be traced back to the standard criteria which would allow them to consider whether such risks are insurable: estimable frequency and severity of harm, the fortuitous nature of the loss, and the ability to spread it. Arguably, there is currently not enough data available to predict both likelihood and extent of possible losses, particularly in light of the broad range of plant varieties and their peculiar features that have a bearing on these aspects. Unless it is clear for insurers that losses below the legal threshold of admixture need not be covered, the fortuitous aspect of the risk may lack entirely, as complete segregation is impossible in a coexistence environment. The most important obstacle to offering liability insurance cover is a tort law regime which allows for compensation of any type of loss irrespective of any wrongdoing by the insured and coupled with a presumption of causation, or – probably even more problematic for insurers – a liability regime which does not allow for predictions of how an admixture case would be solved.
- 26 In order to avoid the shortcomings of the current insurance market, several countries have already taken steps to introduce a compensation fund which should lead to a better protection of the victims as compared to what tort law can offer so far. The models used vary, but the majority only come into play when the admixture is purely accidental and not due to some misconduct, the latter cases being left to tort law. Contributions to the funds come primarily from GM farmers, but others are also included in some countries. In Denmark, for example, the State serves as short-term financier of losses exceeding the fund limit until contributions in the following year have been adjusted to enable the fund to reimburse the State for such interim payments. This redress scheme shall be operative for five years, based upon the hope that the insurance industry will be able to take over in the meantime.
- 27 Compensation funds are typically tailor-made to a particular risk scenario. The procedure to assess a claim and to make payments is often faster. Since the risk group is identified in advance, also the administration of the fund can be designed according to their specific needs. The range of those who pay into the fund may be broader than under other indemnification regimes – not only those immediately concerned will be involved, but also others with a more general interest, including – as could be seen from the example of Denmark – the State who may otherwise not contribute to indemnifying losses (though participation in an insurance pool may be imaginable). State aid rules will de-

fine the limits thereto, however. Other such redress schemes do not foresee or even exclude State participation, e.g. in the Walloon region of Belgium or in Portugal. Compensation funds need not necessarily follow the restraints of actuarial mathematics and therefore can be introduced to fill a gap in the insurance market: Even if commercial insurers feel unable to offer cover, compensation funds may nevertheless (or even just for that reason) be installed in order to at least serve as a temporary solution until the market can take over.

- 28 Monies accumulated in compensation funds are typically limited, and depending upon the pooling arrangement, the funds may be dried out even before all claims have been settled unless someone backs up the regime by way of a guarantee as in the Danish case. Lack of current information is not the only reason why compensation funds may have to struggle with inadequate risk assessment – depending on the political pressure that tends to precede the formation of such a risk pool, its conditions may not even entirely reflect what is already known. Risk differentiation may also be inadequate in comparison to alternative indemnification models: Those who contribute to the fund are not necessarily those who are in control of the risk that shall be covered, or at least their contribution may not reflect the actual weight of their influence.
- 29 One major argument against compensation funds is the principle of equality: Why are certain risks (and therefore certain claimants) favoured whereas others are left to the more traditional ways to obtain compensation? Indeed, one may wonder why a comparatively exotic risk such as the economic losses caused by gene flow should deserve to be addressed by a special fund as long as traffic accidents and other, much more frequent loss scenarios are not equally addressed. This question can of course also be posed with respect to any other special solution, for example in the field of tort law.
- 30 Yet other risk spreading models have been developed in some Member States. In Germany, for example, a feed producer (with the support of seed producers) voluntarily offers to buy the crops of conventional farmers within a certain distance to a GM farmer at the regular price. In the Netherlands, all stakeholders have jointly come up with a contractual compensation scheme which also foresees a fund. These peculiar solutions have been developed on the basis of very specific market conditions, though, which do not necessarily translate well into other settings in different countries.
- 31 Any such measure to promote coexistence is likely to assist the insurance market to step in at some point. By enabling GM farmers to get started without concerns of unpredictable liability issues in the future, but at the same time without leaving their non-GM neighbours empty-handed in case a loss

should indeed occur, data can be gathered over time which is essential for insurers to properly calculate the risk.

- 32 While it depends upon their statutes how compensation funds and similar redress schemes handle cross-border applications (which allow for tailor-made solutions such as bilateral arrangements), the transboundary loss case in tort law is governed by already uniform rules with respect to the jurisdiction of the court and will soon be falling under a harmonized conflict of laws regime. In essence, therefore, the victim will be able to sue both in her own jurisdiction as well as in the GM farmer's country, and the laws of the victim's jurisdiction will (most likely) apply. Hence, there is no imminent need for further action at Community level to harmonize just the cross-border matters. Apart from other flaws, a substantive solution such as a compensation fund applying to transboundary losses only would violate the principle of equality if these cases are handled differently from national ones.
- 33 As could be seen already in this overview, the current situation in Europe shows a wide range of solutions to address the issue of GMO admixture. Is such national diversity really desirable, or do we have to strive for harmonization in this field? Harmonization as such can never justify itself, though: The existence of differences between the Member States per se is no sufficient reason to interfere with their national legal systems.
- 34 This leads to the question whether such diversity has any negative influence on the internal market. The report is at least doubtful whether that is the case. Local market conditions (including in particular the regulatory framework of GM farming) will play a much more considerable role than redress schemes stepping in ex post. Even if one should come to the conclusion on the basis of further economic and sociological data (which cannot be provided by this report) that the internal market may be affected by the existing compensation rules and the diversity thereof, one would still need to pose the question whether a harmonized regime designed to replace existing national solutions would really improve the current situation in this respect.
- 35 If this question were answered in the affirmative, the necessary starting point would be the regulatory framework of GM farming which needs to be expanded towards a more precise definition of good farming practice. Clarifications with respect to the labelling thresholds and their impact on the liability issue are also desirable. Otherwise, the Member States will not be in a position to draw the borderlines foreseen by a compensation scheme, for example which losses are compensable, or whether or not the GM farmer is liable for fault.

- 36 Any choice to interfere with the existing national solutions in a strive to achieve at least some degree of harmonization will necessarily have to be based on a political opinion-forming. The legal perspective itself does not offer sufficient guidance to single out an optimal solution. After all, the tort laws and other compensation systems applicable to the cases under survey here only mirror the attitude of the respective jurisdiction towards GM farming, which is primarily marked by other rules and regulations.
- 37 The fundamental question whether and to what extent GM farming shall be advanced in Europe may have a bearing on the choice of the ideal liability or other redress scheme. It is important to note, however, that the promotion or limitation of GM farming can also be achieved by other, more direct means, and if the problem is rooted in the general public's fear of or mistrust in genetic engineering, tort law cannot offer any way to overcome that fear or to establish confidence.
- 38 There are various ways to respond to the risks on which this study is focusing, and so are the possible degrees of harmonizing the current national solutions. The choice behind any option will necessarily be dominated by the replies to the more elementary questions of how to promote coexistence, and how far to go in reaching that goal.
- 39 Apart from no action at all, the other extreme would be complete harmonization of all aspects of compensating losses arising from adventitious presence of GMOs in non-GM crops. It is hard to imagine how such an exclusive regime can be conceived, even if it were deemed desirable (which is highly doubtful). A lesser degree of harmonization could be achieved by identifying a compensation model for all Member States which leaves certain aspects open for them to regulate individually. This would inevitably lead to different treatment of similar cases in the Member States, though. A very mild form of harmonization (if at all) would be to offer a merely optional model without any need for the Member States to implement it. This will most likely not abolish the differences between the various regimes existing altogether, however, even though some Member States may indeed adjust their systems accordingly. From a cost-benefit-analysis, one may wonder whether establishing such a regime is really needed in light of the fact that the various options currently chosen by the Member States already constitute a full catalogue of possible schemes, and the pros and cons of each of them are clearly visible for those jurisdictions which are considering a re-evaluation of their own system.
- 40 This has to be differentiated from setting a minimum standard that shall apply throughout Europe. The policy choice could be, for example, that non-GM

farmers deserve compensation for at least the immediate harmful effects of GMO admixture, and that it should be more or less readily available to them. It should be noted, however, that all national jurisdictions already provide at least for a minimum level of protection via tort law. Further conditions or aspects going beyond this status quo could be included in defining that minimum standard. An alternative target that could be set would be to require Member States to achieve insurability of such risks by reducing the uncertainties created by imprecise legislation, but leave the tools to reach that goal up to them to choose.

- 41 The key concern of any steps taken towards harmonization – if that should be the political preference – must be on the interaction of any future uniform guidelines or rules with the existing legal systems in general and the tort law regimes in particular.

