

**RECOMMENDATIONS
ON WAYS TO MITIGATE RISKS AND VULNERABILITIES, INCLUDING
STRUCTURAL ISSUES PUTTING AT RISK FOOD SUPPLY CHAINS**

EUROPEAN FOOD SECURITY CRISIS PREPAREDNESS AND RESPONSE MECHANISM (EFSCM)

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This document does not represent the position of individual members or of the European Commission. The recommendations have been adopted by consensus by the expert group on the EFSCM on 17 July 2024.

Introduction:

The European Union (EU) food supply chain plays an essential role in ensuring a sufficient and varied supply of safe, nutritious, affordable and sustainable food to citizens at all times. However, several risks and vulnerabilities threaten its stability and long-term resilience. In response to increasing uncertainty and challenges threatening EU food systems, the European Commission, on 12 November 2021 adopted a [Contingency plan for ensuring food supply and food security in times of crisis](#). As part of the associated action plan, the Commission carried out a mapping of the risks and vulnerabilities, including structural issues, of the EU food supply chain and its critical infrastructures among others through a [dedicated study](#).

The findings of this study laid down the basis for discussion and analysis of ways to address or mitigate the risks and vulnerabilities, including structural issues putting at risk the EU food supply chain. Its outcome has supported the [EFSCM](#) in formulating the following recommendations.

Risks and vulnerabilities in the EU food supply chain based on the [2023 JRC Report](#):

The study clustered 28 risk categories within the following six risk types:

- 1. Biophysical and Environmental:** Stemming from natural environment characteristics, including climate change, natural disaster, and pollution.
- 2. Economic and Market:** Caused by market disturbances, economic and financial challenges affecting food systems 'viability.
- 3. Socio-cultural and Demographic:** Arising from societal structure, culture, and behavioural changes.
- 4. (Geo)Political and Institutional:** Resulting from sudden changes in the political framework, geopolitical instability and policy shifts.
- 5. Supply chain performance:** Arising from food supply chain malfunction, including contamination, logistics disruptions and upstream issues.
- 6. Information and Technology:** Originating from information gaps, technological disruptions, and potential harm from innovative technologies.

Nine main factors of vulnerability were identified through interviews, encompassing policy constraints; financial limitations; low flexibility to change; market dependencies; lack of alternatives, research, or infrastructure; human capital shortages; weak supply chain organisation; lack of natural resources; and high concentration of input suppliers or agricultural products buyers.

In September 2023 the Commission set up an EFSCM subgroup that has met three times and worked online between October 2023 and March 2024 with the objective of i) reviewing the risks and vulnerabilities as identified in the context of the 2023 JRC study; ii) exchanging on risks mapping exercises and risks mitigation strategies; and iii) providing recommendations to guide the EFSCM in addressing the multifaceted challenges faced by the EU food supply chain.

In a strategic approach to provide cross-cutting recommendations to the identified risks and vulnerabilities within the EU food supply chain, the collaborative efforts of the EFSCM subgroup focused on formulating recommendations that transcend individual risks. This approach was deliberate, opting for a comprehensive perspective that targets commonalities across various risk types and vulnerabilities highlighted in the mapping study. This holistic approach allows for a unified and overarching strategy, laying the groundwork for possible future, detailed risk-specific analyses should the EFSCM consider it appropriate.

As acknowledged in the NATO baseline requirements for national civil resilience, which include “resilient food and water resources”, food security is intrinsically linked to and therefore cannot be dissociated from any type of crisis preparedness action. Consequently, the following recommendations will also inform the upcoming [Niinistö report](#) on how to enhance Europe's civilian and defence preparedness and readiness in view of a possible future EU Preparedness Strategy.

Recommendations

Addressing risks and vulnerabilities in the EU food supply chain requires a comprehensive, horizontal, and collaborative approach. The recommendations outlined below are addressed to policy makers and stakeholders in a broad whole-of-government and whole-of-society approach in order to better anticipate and mitigate risks and vulnerabilities of the food supply chain. They underscore the importance of adaptability and collaboration, as well as deepening the understanding and enhancing the monitoring of risks and vulnerabilities in the EU food supply chain. As such, the EFSCM recalls the interconnection between the food sector and all other sectors of the economy to ensure European food security and encourages stakeholders to consider the proposed recommendations for their own strategic planning, crisis preparedness and management.

The EFSCM underlines that the following measures, divided in three clusters (General principles; Structural measures; Crisis preparedness) constitute a general framework aiming at mitigating risks and vulnerabilities in the EU food supply chain:

A. General principles

1. Fostering collaboration and information sharing

Highlighting the interconnected nature of risks, the EFSCM underscores the importance of a collaborative approach at all levels. Effective cooperation among the EC, Member States and non-EU countries, sectors representatives, and other supply chain actors as well as building trust within the supply chain is essential to address risks comprehensively, foster a unified approach to risk management, and prevent cascading effects.

Making full use of existing platforms for sharing critical information related to risks and emerging threats such as e.g. the group of experts on the EFSCM, the [Dashboard on food supply and food security](#), the Agricultural Market Information System [AMIS](#), as well as best practices related to mitigation strategies, will enable a collective response to challenges.

2. Developing crisis preparedness and management strategies

Acknowledging the diversity of risks across sectors and supply chain actors, the EFSCM emphasises the importance of active engagement of all relevant parties to continuously identify risks and develop strategies for effective crisis preparedness, mitigation and management. Those parties should include policy makers, civil society organisations, private economic actors, as well as experts from academia and think tanks.

B. Structural measures

The 2022 Commission [Communication on safeguarding food security and reinforcing the resilience of food systems](#), underlined the **paramount importance of resilience across the food chain**.

More recently, the OECD concluded that building resilient food systems¹ requires a holistic view that considers: i) the broader set of food systems objectives; ii) the full range of possible risks affecting the whole food supply chain, **including all up- and downstream actors**, and iii) sectoral interlinkages and coherent policymaking.

3. Improving resilience of the food supply chain, particularly in primary production

Recognising the fundamental role of primary production in making available raw materials and food to the rest of the food supply chain, the EFSCM supports initiatives that have the objective to enhance the resilience of primary producers (farmers and fishers) across the EU. Resilient primary production and appropriate state of natural resources which food production depend upon, are essential to ensure the stability and continuity of food supply for the whole supply chain. This involves promoting [diversification](#) and adaptability in agricultural, aquaculture and fisheries practices to withstand the numerous challenges they will be facing in a more uncertain world, with a focus on climate-smart methods, including agroecology and other such practices, involving for instance precision agriculture. Tailored support mechanisms should address specific challenges faced by primary producers, ensuring their sustainability and competitiveness in the face of environmental, climate, social and economic risks. The EU legal framework, including the Common Fisheries Policy and the Common Agricultural Policy toolbox, continues to be key to increase the stability and continuity of food availability and promote risk-management tools. In addition to primary production, attention should be also given to industrial activities, both for food production and for making agricultural inputs available. The EFSCM emphasises the necessity of robust industrial policy measures, such as the EU Industrial Strategy, to bolster the manufacturing capacity of critical inputs/technologies within Europe and partner countries. The EFSCM further highlights the need to build on already existing work strands, notably in the context of horizontal crisis management, for instance in the context of the aforementioned upcoming report on how to enhance Europe's civilian and defence preparedness and readiness.

¹ OECD 2023 report: [Towards resilient food systems: implications of supply chain disruptions and policy responses](#)

4. Promoting sustainable and circular economy practices along the chain

Recognising the paramount importance of sustainability in fostering a resilient food supply chain, the EFSCM commends the efforts already undertaken, in particular through the CAP, to promote sustainability throughout the supply chain and, as such, address long-term structural issues, thus enabling EU farmers and fishers to continue ensuring food supply to EU citizens.

The EFSCM advocates for the adoption of circular economy principles within the food supply chain and recommends continuing promoting the adoption of sustainable production practices, responsible resource management, waste reduction strategies and healthy and sustainable diets, to build a more resilient and sustainable food supply chain in the EU.

5. Diversifying supply sources

Taking into consideration the identified vulnerabilities² stemming from high import dependencies in certain specific sectors or for certain specific inputs, the EFSCM emphasises the importance of the principle of [European Open Strategic Autonomy](#). This involves monitoring identified critical dependencies including from non-like-minded countries, particularly in areas such as technology, input and supply sourcing, critical infrastructure, energy, IT-systems, and production location, in view of supporting diversification measures to minimise risks associated with overreliance on single sources and geographic origins, and to consider possible organisation of strategic stocks or mechanisms that could help managing the volatility of a range of commodities. It further includes diversifying the EU's sourcing by building on reliable and mutually beneficial partnerships, like in the case of critical raw materials.

Certain dependencies could also be reduced by relying on sustainable substitutes and alternative sources of origin - provided that EU quality, sustainability and safety standards are not undermined - but also by changes in consumption patterns.

6. Improving resilience of transport and infrastructure

The EFSCM recommends to address structural vulnerabilities by investing in improvements towards climate-smart infrastructure and ensuring adequate maintenance. This includes upgrading technology, transportation networks, storage facilities, and processing plants to enhance overall resilience against natural disasters and other external shocks.

7. Maintaining a well-functioning Internal Market and Common Organisations of the Market (CMOs)

To ensure stability in food supply within the EU, the EFSCM recommends placing a particular focus on the protection, maintenance and strengthening of a well-functioning Single Market by preventing any unjustified restrictions and barriers. A properly functioning Single Market, supported for primary products by appropriate tools specific to agriculture, fisheries and aquaculture in their respective CMOs, play a crucial role to mitigate possible market disruptions and to ensure a fair and competitive environment.

² March 2024 Research for AGRI Committee: The dependency of the EU's food system on inputs and their sources:
[https://www.europarl.europa.eu/RegData/etudes/STUD/2024/747272/IPOL_STU\(2024\)747272_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2024/747272/IPOL_STU(2024)747272_EN.pdf)

8. Sustaining research and innovation

In recognition of the emergence of novel risks and the evolving nature of existing ones, the EFSCM emphasises the need for sustained investment in research and innovation, including for innovative approaches useful for crisis preparedness and management. This includes technological advancements and research initiatives aimed at addressing sector-specific vulnerabilities or developing secured critical technologies. A proactive approach to research and development will allow the EU to stay ahead of emerging threats to the food supply chain and to ensure its adaptability.

9. Crisis-proofing regulatory frameworks

Acknowledging the need for a robust regulatory environment, the EFSCM recalls the importance of the Better Regulation agenda in ensuring frameworks that enhance transparency, safeguard food safety, and ensure accountability across the entire food supply chain. When considering new EU legislation and policies, the EFSCM further calls for carefully examining how this would affect food security.

Flexible arrangements towards dealing with crisis, and harmonisation of regulations are essential to adapt to evolving risks and challenges. As such, the EFSCM calls for legislation that effectively safeguards the integrity of the EU food supply chain, but also one that can adapt to evolving risks and challenges.

10. Investing in digitisation

To enhance the functioning of the supply chain and to safeguard the digital integrity of the EU food supply chain, the EFSCM calls for the allocation of funding to research and development in innovative technologies. This includes the adoption of blockchain, Internet of Things (IoT), robotisation, enhanced data collection and advanced analytics for risk prediction. In addition, acknowledging and raising awareness about the growing risks of cyber-attacks and hybrid threats, the EFSCM highlights the need to plan for cybersecurity measures, including by supporting the diversification of suppliers of IT solutions and developing contingency plans in case of widespread internet blackouts. Protecting digital systems, databases, and communication channels is essential to prevent unauthorised access and tampering, safeguarding the digital integrity of the EU food supply chain.

11. Improving financial support mechanisms

To assist food supply chain participants in recovering from unexpected disruptions and ensure their viability, the EFSCM suggests strengthening financial support mechanisms for actors in the food supply chain to mitigate risks and vulnerabilities, including management tools such as mutual funds and insurance systems. Collaboration with public and private financial institutions and authorities will be key to developing tailored financial products addressing the unique challenges faced by the food chain.

12. Advocating for international cooperation

Given the global nature of challenges affecting the food supply chain, the EFSCM advocates for international cooperation³ and rules-based international trade. While local and regional food chains, domestic production and territorialised food systems are key to European food security, working towards common standards, guidelines, and protocols to ensure a seamless and secure flow of goods internationally will continue contributing to global food security.

C. Crisis preparedness

13. Setting robust crisis preparedness and contingency plans at all levels

Recognising the need for a comprehensive and coordinated approach when it comes to crises, the EFSCM recommends the continued implementation of the contingency plan at EU level. Simultaneously, national authorities and stakeholders' organisations are urged to establish national, sectoral, or multi-actor contingency plans with sufficient resources to not only effectively address risks and vulnerabilities in their respective areas but also to respond to EU-coordination needs.

14. Analysing risks and stress-testing

Given the dynamic nature of risks with varying timescales and origins, and to enhance response capabilities, the EFSCM recalls the importance of foresight and outlook exercises and recommends the integration of sector-specific preparedness plans and simulation exercises. These exercises should simulate diverse risk scenarios, considering short-term disruptions and long-term challenges.

15. Continued monitoring and enhancing early warning systems

To proactively address potential threats, the EFSCM recommends raising awareness about the importance of food supply monitoring, and about existing early warning systems. The EFSCM advises investing in their further development, adaptation, and full deployment. Collaboration, beyond EU geographical limits, with meteorological agencies, geopolitical analysts, animal health surveillance systems and other relevant entities such as the Agricultural Market Information System [AMIS](#) will enable the anticipation and preparation for potential disruptions to the food supply chain, as well as for managing outbreaks or epidemics.

16. Building capacity through training, advisory services, and life-long learning

Emphasising the significance of a well-coordinated response, the EFSCM suggests comprehensive training programs on crises preparedness and management for relevant actors at EU, Member States, non-EU countries and stakeholders' organisations' level to represent all sectors and stages of the EU food supply chain. The trainings should be designed to address the specific risks identified for each sector or region, fostering a coordinated response among all actors involved.

Life-long learning and skills development programs to adapt to emerging technologies must also be rolled out to ensure sufficient trained labour along the food supply chain.

³ <https://www.fao.org/fao-who-codexalimentarius/about-codex/trade/tr/>

17. Investing in crisis preparedness communication and information campaigns

Recognising the importance of public awareness towards crisis preparedness and response, the EFSCM recommends increased investment in communication and information campaigns targeting the general public. These initiatives should focus on educating citizens about potential risks to the food supply chain and promoting proactive measures for resilience and consumer preparedness. Special attention should be given to emerging risks such as cybersecurity and technological advancements, with efforts focused on increasing understanding.

18. Enhancing crisis communication protocols

Acknowledging the importance of effective communication during emergencies, the EFSCM recalls that [communication plans](#) are essential to mitigation strategies and must be adapted to the specific needs of each sector, ensuring timely, fact-based and accurate information dissemination to relevant stakeholders.