

# **Mapping the Risks and Vulnerabilities in the EU Food Supply Chain**

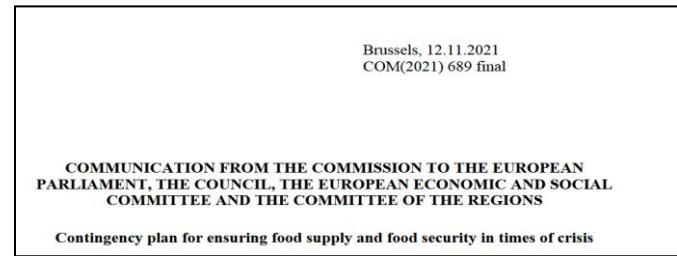
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FVE delegate at European Food Security Crisis Preparedness and Response Mechanism (EFSCM)

29th meeting of EFSA Stakeholder Discussion Group on Emerging Risks (StaDG-ER)-  
7-8 June 2023, Parma, Italy.

# EU Commission response

- November 2021: Contingency plan activities and action to be completed between mid-2022 and 2024 for ensuring food supply and food security in times of crisis
- set up of the European Food Security Crisis Preparedness and Response Mechanism (EFSCM) to improve coordination between the public and private sectors in crisis time and evaluate the risks
- March 2022: Communication Safeguarding food security and reinforcing the resilience of food systems.



# EFSCM- Who and what

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- Commission Decision 12 November 2021 set up the group of **experts** on the European Food Security Crisis Preparedness and Response Mechanism (Stakeholders' organisations + MS)
- sub-groups to focus the discussion around particular elements of the action plan:
  - improving the diversity of sources of supply
    - diversify domestic production
    - trade
    - diversify consumption
  - dashboard for monitoring food supply and security
  - crisis communication guidelines on food supply and security

# EFSCM- How

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- The activities and actions (mid 2022, end 2024)
  - analyse the risk landscape: vulnerabilities and critical infrastructure of the food supply chain
  - to enhance the preparedness
    - foresight
    - risk assessment
    - monitoring
      - available data (e.g. weather, climate, markets)
  - coordination, cooperation, and communication.

# EFSCM sub-group improving the diversity of sources of supply

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- analyse/assess key **short-term and long-term drivers of food security** identified by the Commission with the support of the Joint Research Centre (JRC).
- JRC study '**Mapping the Risks and Vulnerabilities in the EU Food Supply Chain**' (based on literature review, semi-structured interviews and online survey).
- this study will contribute to the activities of the EFSCM in delivering recommendations towards ensuring preparedness for future risk and crisis in the European food supply chain
- JRC has entrusted ECORYS to conduct the study, whose ultimate purpose to inform policymaking and support future studies search Centre.

# Mapping the Risks and Vulnerabilities in the EU Food Supply Chain

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- **Risk**
  - adverse events or circumstances: e.g. very likely events (already materializing, like energy price spikes), very unlikely ones (still possible, like pandemics)
- **Vulnerability**
  - supply chain is vulnerable to the identified risks
  - the supply chain have the capacity to cope with the risk and keep supplying sufficient and affordable food in the market.
  - identify the factors that could explain or determine the vulnerability of a supply chain to a risk.

# Mapping the Risks and Vulnerabilities in the EU Food Supply Chain

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- JRC (ECORYS) public consultation (interviews with private and public stakeholders) and online consultation to involve the same stakeholders.
- **key questions**
  - which drivers have the **most significant** (positive or negative) impact on EU and global food security, in the short and in the medium-long term?
  - what are the **interlinkages**, in terms of synergies and trade-offs, between the different drivers?
  - what **actions** should be undertaken at the EU and/or national level in the short term? (consider war in Ukraine and risk of jeopardizing the EU's long-term commitments under the Green Deal)

# Mapping the Risks and Vulnerabilities in the EU Food Supply Chain

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- The JRC study will build upon the rich literature in the field, and deliver sound analyses of the risks and vulnerabilities in the EU food supply chain.
  - identify potential risks and structural vulnerabilities affecting the food supply chain
  - assess the origin and sources, impact and likelihood of risks
  - prioritize risks to cast light on the noteworthy threats to be deal with in the first place.

# Mapping the Risks and Vulnerabilities in the EU Food Supply Chain

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- the JRC study will produce:
  - a database of the risks and vulnerabilities affecting the EU food supply chain
  - a final report of the methodology and analyses of the identified risks and vulnerabilities.



# Mapping the Risks and Vulnerabilities in the EU Food Supply Chain

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- **Drivers with** potential short-term and medium/long-term impacts (policies, technologies, biodiversity, environment, cost of seeds and input, labor market issue).
- Drivers analysis
  - food availability
  - food access
  - food stability
  - food consumption
- EU global player on food security



# Mapping the Risks and Vulnerabilities in the EU Food Supply Chain

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- **economic drivers**
  - willingness and incentives to farmers
  - price of inputs (e.g. seeds) and energy
  - availability of workers
  - farm income
  - food inflation
  - land use and management
  - investment, technology, knowledge and innovation, access to financing, and trade
- **environmental drivers**
  - soil health and fertility, **climate change** and adaptation, **biodiversity loss**, pollution, and environmental degradation, plant pests, and **animal diseases** that poses also significant challenges to global food safety

# Mapping the Risks and Vulnerabilities in the EU Food Supply Chain

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- societal drivers
  - food safety and quality, food loss and waste, consumer demand, dietary choices, access to food, living and working conditions in rural areas
- regulatory framework, policy initiatives and incentives, geopolitical conditions and developments can be considered a horizontal driver

# Dashboard for monitoring food supply and security

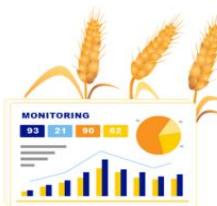


European Commission

Home > Agriculture and rural development > Data and analysis > Agri-food data portal > Food supply and security > Monitoring

## Monitoring

Datasets covering topics related to food supply and food security, updated with an annual or lower frequency.



### Monitoring

Selected datasets provide recent data on food supply and food security to allow users monitor these issues in a timely manner. Their selection was made based on the input provided by the European Food Security Committee and functioning of the



European Commission

Food Supply

Directorate-General for Agriculture and Rural Development

Beef Fresh beef meat Member State Marketing Year



European Commission

Food Security

Directorate-General for Agriculture and Rural Development

SELECT INDICATOR: Consumer Food Inflation

Annual inflation rate comparing February 2023 with February 2022

Member State	Product Group	General inflation	Food	Bread and cereals	Meat	Fish and seafood	Milk, cheese and eggs	Oils and fats	Fruit	Vegetables
European Union		9.8	19.5	20.8	17.3	14.6	28.4	27.2	19.0	19.1
Euro area		8.5	17.7	19.9	15.5	13.5	26.2	27.8	8.0	17.9
Belgium		5.4	19.9	21.7	16.1	18.7	38.4	38.7	12.4	22.9
Bulgaria		13.7	25.8	17.3	27.4	17.8	38.5	17.8	7.2	17.6
Croatia		18.4	25.4	26.4	23.0	18.0	33.5	22.9	18.6	22.7
Denmark		8.9	15.3	14.1	15.4	13.7	23.0	22.5	9.9	11.1
Germany		8.3	22.3	24.6	19.0	22.5	35.4	27.5	8.3	21.8
Estonia		12.8	25.8	19.2	28.0	26.0	36.0	28.9	14.7	18.4
Ireland		8.1	13.3	13.7	14.4	16.5	28.4	19.7	8.6	9.3
Greece		6.5	14.7	16.9	20.8	2.5	25.2	23.0	6.7	8.2
Spain		6.0	16.7	18.8	14.0	16.9	25.3	32.9	5.8	20.4
France		7.3	16.1	14.4	15.4	13.7	28.4	29.9	10.0	19.9
Croatia		11.7	17.9	26.0	14.4	14.6	25.9	5.3	7.6	10.2
Italy		9.8	13.5	16.9	9.9	16.4	19.9	29.2	5.5	10.5
Cyprus		6.7	9.1	12.6	17.8	11.8	15.7	31.1	-8.0	-2.9
Latvia		20.1	25.4	30.0	23.8	23.7	24.4	27.8	18.9	21.4



Food Supply

Directorate-General for Agriculture and Rural Development

EU import volume by Member State (quantity in tonnes)

Marketing Year: 2023 | Month: all | Sector: Beef | Product: Fresh beef meat

Map

Chart

Member State: Livello area

Tonnes: 8.83k

2.6m

North Atlantic Ocean

1000 km

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# Dashboard for monitoring food supply and security

- three pillars
  - monitoring system (quantitative indicators)
  - alert system
  - qualitative assessment



**Eurostat indicators:** e.g shares of imports of raw materials and agricultural inputs, household food expenditure, food inflation,



**External sources:** weather monitoring, drought observatory, **animal disease outbreaks**, food and fertilizers restrictions, food supply (kcal and by protein sources).  
energy sectors: import dependency, self-sufficiency rates

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- alert system



**External sources:** weather monitoring, drought observatory, **animal disease outbreaks**, food and fertilizers restrictions, food supply (kcal and by protein sources).

- **qualitative assessment** (EFSCM three times per year)



Food supply: score 0-10 risk level



Food security: score 0-10 risk level

- 2023: the links will be transformed into App