

REGIONAL REPORT: EUROPE

GLOBAL FOOD SECURITY INDEX 2019

Supported by



Europe

Global Food Security Index 2019

Food security in Europe

Under the auspices of the European Union (EU), many countries in Europe share common policies related to agriculture and food security. Agricultural sectors in most of Europe are advanced and the region serves as a major exporter of agricultural goods. Whereas the EU supports its member states by heavily subsidising agriculture as part of its Common Agricultural Policy (CAP), non-EU countries such as Switzerland and Norway engage in robust protectionism in the interests of their farmers.¹ Overall, food security in Europe is strong, although Eastern Europe lags behind its western neighbours. Furthermore, while the region is the least vulnerable to the threats that climate change poses to food security, natural resource pressures and climate change remain a risk for ensuring food security in years to come.

Measuring food security: The Global Food Security Index

How food-secure are the countries of Europe? To answer this question, The Economist Intelligence Unit, supported by Corteva Agriscience, conducts an annual benchmarking assessment called the Global Food Security Index (GFSI). The 2019 GFSI marks the eighth edition of this study and considers three core issues of food security: affordability, availability and quality and safety. The index also explores the risk to food security from exposure to climate change and other natural resources challenges. This report presents the key findings for the 26 countries in the Europe region included in the GFSI.

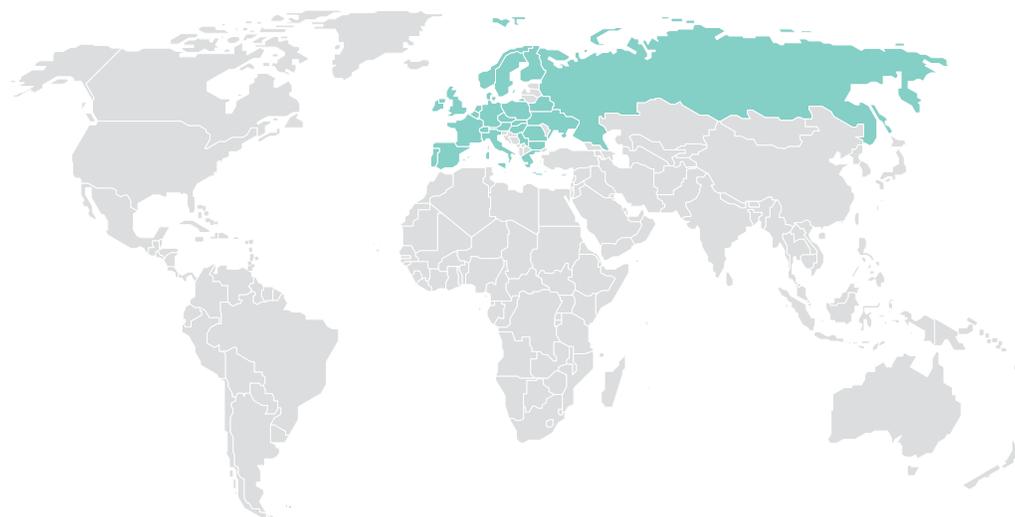
Regional performance

| Average regional scores | | Score/100 |
|-------------------------|------------------------------|-------------|
| 1 | North America | 78.5 |
| 2 | Europe | 75.8 |
| 3 | Middle East and North Africa | 64.8 |
| 4 | Asia Pacific | 64.2 |
| 5 | Central and South America | 61.7 |
| 6 | Sub-Saharan Africa | 47.9 |

| Top 5 ranked countries in region | | Rank/113 |
|----------------------------------|-------------|----------|
| 1 | Ireland | 2 |
| 2 | Switzerland | 4 |
| =3 | Finland | =5 |
| =3 | Norway | =5 |
| 5 | Sweden | 7 |

| Lowest 5 ranked countries in region | | Rank/113 |
|-------------------------------------|----------|----------|
| 26 | Ukraine | 76 |
| 25 | Serbia | =59 |
| 24 | Bulgaria | 51 |
| 23 | Slovakia | 47 |
| 22 | Russia | 42 |

| Regional statistics | | | |
|---------------------------------------|----------------|------------|--|
| GDP per capita (PPP) | | | |
| Highest | Ireland | US\$83,790 | |
| Lowest | Ukraine | US\$9,253 | |
| Total regional population | | | |
| Highest | Russia | 146m | |
| Lowest | Ireland | 4m | |
| Prevalence of undernourishment | | | |
| Highest | Serbia | 5.7% | |
| Lowest | 21 countries | <2.5% | |
| Prevalence of obesity | | | |
| Highest | United Kingdom | 29.5% | |
| Lowest | Switzerland | 21.2% | |



Overview of findings

As a region, Europe is a strong performer in the GFSI, second only to North America. However, there is a clear gap between food security in Western and Eastern Europe. In Western Europe, most countries are part of the EU and the CAP serves as a cornerstone of food and agriculture policy for the bloc. Originally introduced as a set of subsidies to protect and expand agricultural production, the CAP has broadened its scope to cover issues such as social inclusion, the environment and rural development. Accounting for 40% of the EU budget, its impact can be seen on strengthening food security in the region through the provision of financial assistance for farmers, protections from price volatility and the sustainable management of natural resources.² Furthermore, the EU's Single Market allows tariff-free trade of agricultural products within the bloc, a key factor for ensuring affordable food supply in the region. Outside of the EU, many farmers in Eastern Europe lack access to government support and face more systematic obstacles, such as weaker agricultural infrastructure and greater risks from political instability and corruption.

Although the region is more shielded than others from the effects of natural resource constraints and climate change, their impacts cannot be safely ignored. Europe is susceptible to drought (particularly Eastern Europe), flooding and sea level rise than other regions, all of which could risk future food security. However, most countries in the region appear to be taking these challenges seriously and demonstrate strong political commitment to addressing them through the adoption of interventions such as early warning measures.

Europe: Overall rankings

| Rank | | Score / 100 |
|------|----------------|-------------|
| 1 | Ireland | 84.0 |
| 2 | Switzerland | 83.1 |
| =3 | Finland | 82.9 |
| =3 | Norway | 82.9 |
| 5 | Sweden | 82.7 |
| 6 | Netherlands | 82.0 |
| 7 | Austria | 81.7 |
| 8 | Germany | 81.5 |
| 9 | Denmark | 81.0 |
| 10 | Belgium | 80.7 |
| 11 | France | 80.4 |
| 12 | United Kingdom | 79.1 |
| 13 | Portugal | 77.8 |
| 14 | Italy | 75.8 |
| 15 | Poland | 75.6 |
| 16 | Spain | 75.5 |
| 17 | Greece | 73.4 |
| 18 | Czech Republic | 73.1 |
| 19 | Hungary | 72.7 |
| 20 | Belarus | 70.9 |
| 21 | Romania | 70.2 |
| 22 | Russia | 69.7 |
| 23 | Slovakia | 68.3 |
| 24 | Bulgaria | 66.2 |
| 25 | Serbia | 62.8 |
| 26 | Ukraine | 57.1 |

Key regional findings:

Key strengths

- Government support provides a strong foundation for food availability through food safety nets and access to financing.
- Strong infrastructure in the form of transport and crop storage facilities is a key factor in enabling food availability.
- Corruption and political stability risks in much of the region are low, enabling more consistent access to food, especially for vulnerable households.
- The risk of micronutrient deficiencies is low, owing to strong dietary diversity and availability of quality protein and essential micronutrients in food systems.
- Europe is a leader on food safety as a result of strong water and electrical infrastructure and the existence of food safety agencies in every country in the region.
- There is strong commitment to addressing the challenges posed by present and future natural resource and climate-related risks.

Key gaps

- There is a division between Western and Eastern Europe on performance on key indicators such as nutritional standards and agriculture infrastructure.
- The agricultural sector faces risks from a rise in sea level and increased incidence of drought and flooding.
- Political stability and corruption pose risks to food security in certain countries, including Ukraine, Russia and Serbia.

Affordability

The first category of the GFSI measures food affordability by assessing factors including the ability of consumers to purchase food, their vulnerability to price shocks, and the presence of programmes and policies to support consumers when shocks occur. High incomes, low poverty rates, stable food prices, strong social safety nets and robust agricultural finance systems make Europe the highest-scoring region in this category after North America. However, there are specific gaps for individual countries, particularly in Eastern Europe. Countries should continue to monitor indicators related to affordability to ensure that food remains affordable, and examine sub-national indicators to identify specific vulnerable populations and regions.

Europe: Affordability rankings

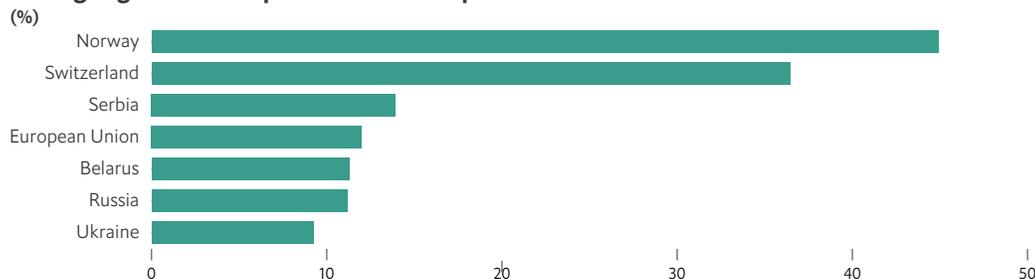
These are the rankings for all countries in the region for the Affordability category.

| Rank | | Score / 100 |
|------|----------------|-------------|
| 1 | Ireland | 90.5 |
| 2 | Netherlands | 85.6 |
| =3 | Austria | 85.4 |
| =3 | Denmark | 85.4 |
| 5 | Sweden | 85.0 |
| 6 | Germany | 84.9 |
| 7 | Belgium | 84.4 |
| 8 | Finland | 84.1 |
| =9 | France | 83.8 |
| =9 | Switzerland | 83.8 |
| 11 | United Kingdom | 83.6 |
| 12 | Czech Republic | 82.6 |
| 13 | Italy | 82.5 |
| 14 | Spain | 82.3 |
| 15 | Norway | 81.9 |
| 16 | Portugal | 81.3 |
| 17 | Poland | 81.1 |
| 18 | Hungary | 80.8 |
| 19 | Russia | 79.8 |
| 20 | Romania | 79.3 |
| 21 | Bulgaria | 79.0 |
| 22 | Slovakia | 78.6 |
| 23 | Greece | 77.8 |
| 24 | Belarus | 76.0 |
| 25 | Serbia | 73.9 |
| 26 | Ukraine | 63.9 |

Key regional findings:

- **Strong social safety nets across Europe ensure food security for vulnerable populations.** Almost every country in the region has broad coverage of food safety nets that serve as an important source of food security for vulnerable households. Ukraine is an exception as there is no evidence of a safety net that explicitly addresses food security, and its generic social assistance systems do not cover the whole country, leaving some vulnerable groups food-insecure.
- **Although tariffs are low within the EU and across Eastern Europe, they are comparatively high in Switzerland and Norway as a result of protectionist policies.** Good traded within the EU are exempt from tariffs, and the EU's tariffs on agricultural goods for most favoured nations is comparatively low, averaging 12% in 2019. Most Eastern European countries outside the EU had even lower tariffs for agricultural imports. However, Switzerland and Norway set very high tariffs – among the highest globally – to protect their local farmers. Switzerland applied an average tariff of 36.5% in 2019, and even higher rates for dairy products and meat.³ As a result, these are among the most expensive countries for food.
- **Europe tops the regional rankings for access to agricultural financing, with all countries offering government or multilateral financing to farmers.** Of the 26 countries in the region, 22 achieve top marks in this metric, indicating the availability of deep financing for farmers. This is achieved through the existence of farmers' cooperative banks, private banks and other financial institutions that ensure access to agricultural credit. In addition, EU member states have access to funds under the CAP, which provides financing for rural development projects.
- **While food prices have remained stable across much of Europe, they have risen sharply in Russia, Belarus and Ukraine.** In the past year, food prices have risen by 5-8% in these three countries. They have also registered the sharpest price increases in the region over the past four years; in Ukraine, average food prices have increased by 85% since 2015.

Average agricultural import tariffs in Europe for most favoured nations



Source: World Trade Organisation (WTO)

Availability

A second dimension of the GFSI measures food availability through assessing factors such as the sufficiency of the national food supply, risk of supply disruption, capacity to disseminate food, and research efforts to expand agricultural output. Strong scores for food supply, agricultural infrastructure and corruption are key factors securing Europe’s place as the second-highest-ranking region for this category. However, while Europe does perform well, there are clear areas for improvement, particularly in regards to transport infrastructure and volatility of agricultural production. In certain countries, political stability and corruption risks pose a threat to ensuring food availability. Across the region, countries can maintain their critical transport infrastructure – such as roads and railways – to ensure stable availability of food supplies, particularly in rural regions. They can also monitor crop storage facilities and irrigation infrastructure to ensure they are maintained and sufficient to meet the needs of their population, particularly in the event of poor weather and failed harvests.

Europe: Availability rankings

These are the rankings for all countries in the region for the Availability category.

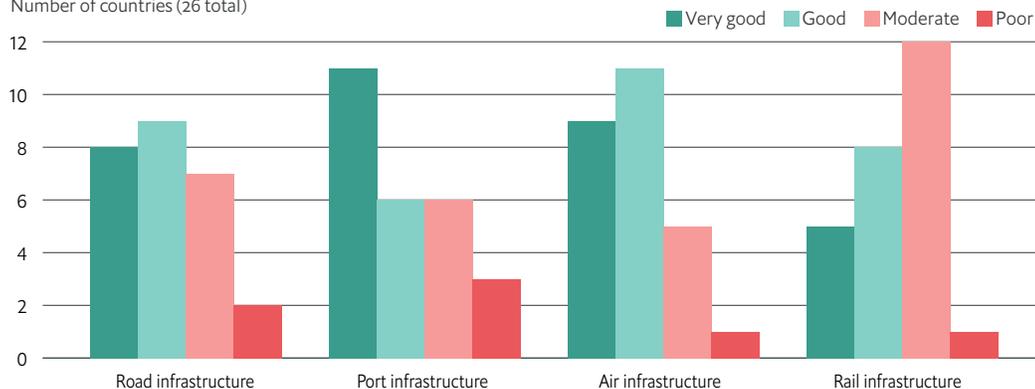
| Rank | | Score / 100 |
|------|----------------|-------------|
| 1 | Switzerland | 84.3 |
| 2 | Norway | 81.0 |
| 3 | Germany | 79.1 |
| =4 | Austria | 78.6 |
| =4 | Finland | 78.6 |
| 6 | Sweden | 78.1 |
| 7 | Ireland | 76.8 |
| =8 | Belgium | 76.2 |
| =8 | Netherlands | 76.2 |
| =10 | Denmark | 74.8 |
| =10 | France | 74.8 |
| 12 | United Kingdom | 74.4 |
| 13 | Portugal | 70.9 |
| 14 | Poland | 69.3 |
| 15 | Italy | 68.3 |
| 16 | Czech Republic | 66.3 |
| 17 | Hungary | 66.1 |
| 18 | Spain | 65.9 |
| 19 | Greece | 64.9 |
| 20 | Romania | 64.3 |
| 21 | Belarus | 62.9 |
| 22 | Slovakia | 62.1 |
| 23 | Russia | 60.1 |
| 24 | Bulgaria | 54.2 |
| 25 | Serbia | 53.0 |
| 26 | Ukraine | 50.0 |

Key regional findings:

- **While the region has high scores for transport infrastructure, there is room for improvement across many countries.** A mix of rail, air and port infrastructure is relied upon for food transportation, but all countries also require strong road systems. However, only eight countries in the region achieve top marks for road quality, signalling room for improvement in food transport and accessibility, most likely for rural and remote regions.
- **Irrigation infrastructure lags behind other regions, indicating that this may be an area for investment.** While the irrigation needs of each country vary, the relatively high levels of drought risk in Europe indicate that irrigation will be important for agriculture now and in the future.
- **Low levels of food loss increase food availability.** Europe recorded the lowest levels of post-harvest and pre-consumer food loss. The EU is at the forefront of tackling food loss and waste, and is actively working to meet Sustainable Development Goal 12.3, which aims to halve food waste by 2030.
- **While corruption and political stability risks in the region are comparatively low, they pose a higher risk to food availability in certain countries, including Ukraine, Russia and Serbia.** Low levels of corruption contribute to efficient food safety net programmes, and political stability ensures consistent access to markets. However, compared with other countries in the region, there is higher risk of corruption in certain Eastern European countries, as well as Greece and Italy, and signs of political stability risks in Ukraine, Belarus, Russia and Serbia.

Quality of food transport infrastructure in Europe

Number of countries (26 total)



Source: The Economist Intelligence Unit.

Quality and safety

This final category of the GFSI measures the variety and nutritional quality of the average diet, as well as food safety. Quality and safety of food is a strong point for the region, with eight of the top ten performing countries in the index being in Europe. The region has one of the highest levels of dietary diversity, as well as high availability of micronutrients and quality protein, likely due to high income levels and access to diverse food sources. Governments demonstrate a commitment to nutritional standards and the majority of European countries have some form of food-based dietary guidance to promote healthy eating. Furthermore, food safety is a strength, with all countries having a food safety agency and strong electrical and clean water infrastructure, ensuring the safe storage and consumption of perishable products, including nutritious foods like fruits and vegetables. However, a number of countries in the region are lagging behind with regards to nutritional standards. These countries should consider updating nutrition guidelines and strategies, as well as conducting regular nutritional surveillance to ensure they are monitoring for nutritional deficiencies.

Europe: Quality and safety rankings

These are the rankings for all countries in the region for the Quality and safety category.

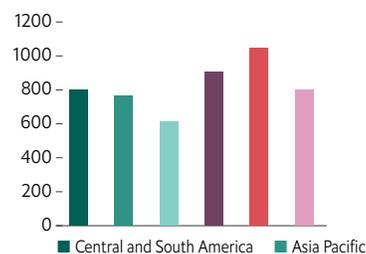
| Rank | | Score / 100 |
|------|----------------|-------------|
| 1 | Finland | 91.8 |
| 2 | Norway | 90.5 |
| 3 | Sweden | 89.4 |
| 4 | Netherlands | 88.9 |
| 5 | Portugal | 88.0 |
| 6 | Ireland | 87.7 |
| 7 | Denmark | 87.2 |
| 8 | France | 87.1 |
| 9 | Greece | 86.0 |
| 10 | Spain | 84.7 |
| 11 | Belgium | 83.9 |
| 12 | Austria | 81.1 |
| 13 | United Kingdom | 80.9 |
| 14 | Belarus | 80.2 |
| 15 | Germany | 79.8 |
| 16 | Italy | 79.7 |
| 17 | Poland | 79.5 |
| 18 | Switzerland | 78.2 |
| 19 | Russia | 70.9 |
| 20 | Hungary | 70.5 |
| 21 | Czech Republic | 68.1 |
| 22 | Bulgaria | 66.8 |
| 23 | Romania | 64.1 |
| 24 | Serbia | 61.8 |
| 25 | Ukraine | 59.6 |
| 26 | Slovakia | 59.4 |

Key regional findings:

- Dietary diversity in the region is high, supported by high micronutrient availability.** All 26 countries rank in the top half of the index for dietary diversity. Furthermore, availability of key micronutrients is strong: all countries have sufficient levels of Vitamin A in the diet, with 16.9-31.6mg of iron available to the average person per day (recommended intake is 17-20mg depending on gender). Every country, with the exception of Hungary and Slovakia, has sufficient levels of zinc available in the national diet (more than 9mg/person/day).
- Europeans have access to a diversity of protein sources, providing strong access to the nine essential amino acids.** Protein is important for nutrition, but not all protein sources carry equal value. Humans depend on protein sources to provide nine different essential amino acids; individual protein sources provide some, but not all nine of these amino acids. Protein diversity and quality matter, not just protein quantity. Taking into account not only the quantity of protein consumed, but also the amino acids the protein sources contain, Europe has the highest scores for quality of protein after North America. Eight of the top ten performers for this metric are in Europe.
- Although the region performs well on nutritional standards, clear gaps remain, particularly in Eastern Europe.** Romania and Ukraine are among the countries with the lowest scores in the category of nutritional standards. In Ukraine, Slovakia, Czech Republic and Romania, governments have neither introduced national dietary guidelines that adequately share messages on balanced diets, nor shared a national nutrition plan or strategy aimed at improving nutrition for adults and children. These gaps are not limited to Eastern Europe – eight countries in the region, including Austria, Germany and Switzerland, do not share evidence that they have conducted a nutritional monitoring survey in the past five years.

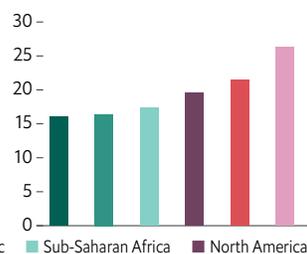
Dietary availability of: Vitamin A

(mcg RAE/person/day)



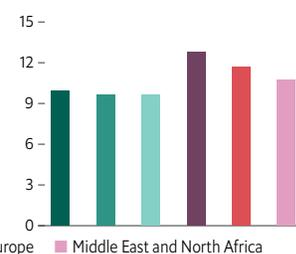
Iron

(mg/person/day)



Zinc

(mg/person/day)



Dietary availability of micronutrients is higher in Europe than other regions.

Source: Global Nutrient Database

Natural resources and resilience

In addition to the three core factors outlined above, the GFSI assesses how exposure to climate risks and the three natural assets crucial to food security (water, land and oceans) can affect a country's overall food security picture. This is used as an adjustment factor that serves as a lens through which food security can be viewed to demonstrate changes to the overall score when climate-related and natural resource risks are taken into account, but not as a mainstream criterion to determine index rankings. Europe tops the regional rankings for this category, with Czech Republic, Finland and Denmark the highest-ranking countries in the index. Europe is a leader in addressing natural resource and resilience risks related to agriculture, and countries are exploring innovative ideas to deal with these risks. The Netherlands, for example, has responded to sea level rise by introducing a floating farm: a platform housing 35 cows that provide milk to the local community.⁴ These innovations will prove valuable in the future as threats to agriculture continue as a result of increasing frequency and severity of extreme weather events, such as droughts, heatwaves and floods.

Europe: Adjusted overall rankings

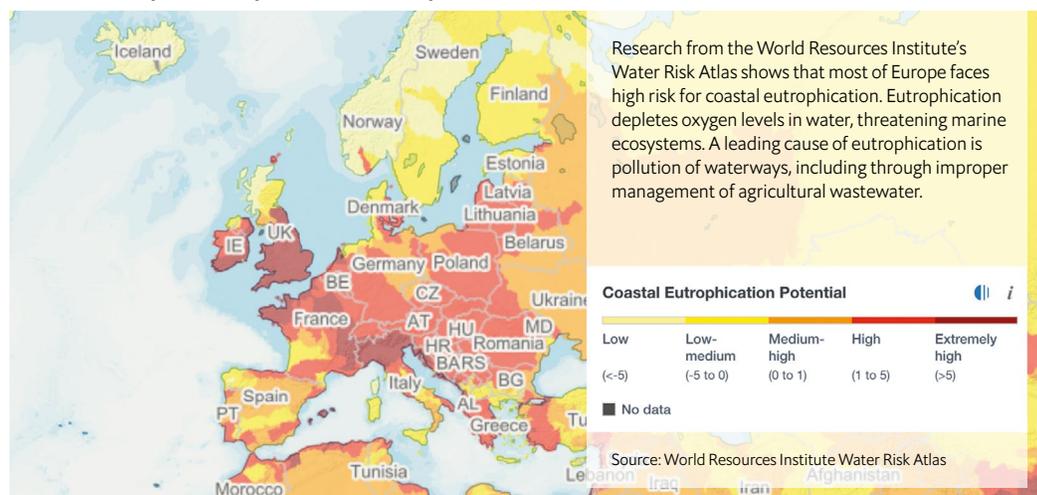
These are the overall index rankings taking into account the score adjustment for Natural Resources and Resilience risks.

| Rank | Score / 100 | |
|------|----------------|------|
| 1 | Ireland | 77.9 |
| 2 | Finland | 77.5 |
| 3 | Switzerland | 77.3 |
| 4 | Sweden | 76.9 |
| 5 | Norway | 76.5 |
| 6 | Denmark | 75.7 |
| 7 | Austria | 75.5 |
| 8 | Netherlands | 75.3 |
| 9 | Germany | 75.1 |
| 10 | France | 74.0 |
| 11 | Belgium | 73.2 |
| 12 | United Kingdom | 71.9 |
| 13 | Portugal | 71.0 |
| 14 | Poland | 69.9 |
| =15 | Italy | 69.1 |
| =15 | Spain | 69.1 |
| 17 | Czech Republic | 68.6 |
| 18 | Hungary | 67.2 |
| 19 | Greece | 66.9 |
| 20 | Romania | 64.3 |
| 21 | Slovakia | 63.7 |
| 22 | Russia | 63.6 |
| 23 | Belarus | 63.1 |
| 24 | Bulgaria | 60.5 |
| 25 | Serbia | 56.9 |
| 26 | Ukraine | 51.0 |

Key regional findings:

- **Ocean eutrophication is a major problem for European waters.** Most coastal countries in the region are classified as areas with high or extremely high coastal eutrophication potential. In a region where oceans are a crucial source of protein, eutrophication has serious implications for food security.
- **Europe is ranked as the region most susceptible to flooding.** Flooding could be the most significant climate-related risk for the region as global warming drives changes in precipitation patterns. Russia is among the five countries most exposed to flood risk. In 2019 alone it saw severe floods, causing agricultural losses worth millions of dollars.⁵
- **Rising seas will mean even larger areas exposed to flooding.** Melting glaciers are causing global rises in sea level which could have devastating effects for coastal European cities that are already vulnerable to flooding. The greatest sea level rise is projected in the North Sea region, putting countries like the Netherlands, Denmark and Belgium at a serious risk. The Netherlands is ranked as the country most vulnerable to sea level rise, across all regions.
- **Europe is better prepared for climate change than other regions.** Ranked as the region with the greatest capacity to manage the risks to the agricultural sector, Europe has committed to a number of adaptation measures, including early warning systems, risk management, education and awareness training. The EU's CAP promotes adaptation measures and provides a framework for financing them at regional and farm levels.

Coastal eutrophication potential in Europe



Improving food security in the Europe region

Key takeaways

1. Food affordability is a comparative strength across Europe, although countries should examine whether affordability is secured across sub-regions and vulnerable populations. Ukraine faces challenges with affordability, given rising food costs and a less robust food safety net than other countries in the region. Average food costs are also rising in Ukraine and Belarus.
2. Countries should assess the strength of their transport and irrigation infrastructure, as well as their ability to ensure food availability both now and in the future. While transport infrastructure is a comparative strength for Europe, many countries have room to improve critical infrastructure such as roads. European countries should also determine whether their existing irrigation infrastructure is sufficient not only for today's agricultural water needs, but also those of the future, since drought risks are projected to increase.
3. Governments can take steps to ensure that nutrition planning and monitoring are ongoing and kept up to date. Although there is evidence of nutrition plans and monitoring efforts in almost all European countries, these have not all been updated within the past five years. Regular planning and monitoring helps to ensure that policies and programmes are meeting existing nutritional gaps.
4. Europe should continue to invest in innovations to address the risks presented by natural resource shortages and climate change. These innovations can then be shared with countries around the world facing higher levels of vulnerability.

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