EXECUTIVE SUMMARY

European Parliament

Research for PECH Committee – Workshop on the European Green Deal – Challenges and opportunities for EU fisheries and aquaculture – Part III: Food security aspects

Overview of the main EGD policy initiatives as regards food security

The **European Green Deal** (EGD) is the EU's overarching environmental strategy to address climate change and environmental degradation. It consists of several policy initiatives that have the potential to impact EU food security, including from fisheries and aquaculture.

A **lack of action on climate** change has direct, severe consequences for fisheries and aquaculture with a decrease in global catches predicted, particularly impacting populations that already face food insecurity. This also impacts aquaculture as 2/3 of production is dependent on food from wild fisheries, while ocean acidification and rising temperature increase risks of disease.

Farm to Fork, the EU's food production strategy, has the most direct implications for food security. Blue Farming promotes the expansion of shellfish and algae production in the EU. Other EGD policy initiatives such as the **Fit for 55 package** and the **EU Biodiversity Strategy for 2030** are expected to impact the significant EU fisheries and aquaculture production that is fuel intensive and damaging to benthic habitats.

EU dependence on seafood imports

In 2020, the **EU produced 5 million tonnes** of fisheries (3.9 million tonnes) and aquaculture (1.1 million tonnes) products, which represents 2% of global production. It is the seventh largest global seafood producer (seventh for capture fisheries and 11th for aquaculture). However, not all EU fleet landings are into the EU and not all production is for direct human consumption. The 2020 production of fisheries and aquaculture products for human consumption totals just over 4 million tonnes. In 2020, people living in the **EU consumed more than twice as much** as they produced. Three quarters came from wild capture fisheries and a quarter from aquaculture.

Growth in EU seafood consumption is supplied by an increase in **extra-EU imports** (whitefish, tuna, salmon and shrimp), which are often then subject to intra-EU exchanges. More of the lower-value species like herring and mackerel are exported.

The present document is the executive summary of the study on '*Workshop on the EGD – Part III: Food security aspects*'. The full study, which is available in English can be downloaded at: https://bit.ly/48QNfzF

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China and other **Asian countries** remain important **reprocessing centres** for seafood destined for the EU, but this has declined following the COVID-19 pandemic with increasing logistics and labour costs. **EU companies are developing shorter supply chains** with more added value processing closer to landing and aquaculture production centres.

The characteristics of **sustainable fisheries** models are well-understood (effective, adaptive management informed by sound science), **but must be applied more broadly** to all EU production and to its imports.

The EU's **Sustainable Fishery Partnership Agreements** (SFPAs) with non-EU countries contribute significantly to EU production. Rather than seeking to avoid negative impacts on the food security of non-EU countries, SFPAs have the potential to make a positive contribution.

EU aquaculture production

In 2020, EU aquaculture **production** was **1.1 million tonnes**, a decline on the previous year's total mainly due to the UK's exit from the EU as well as COVID-19 disruption. 2020 also saw the **EU import 2.1 million tonnes** of aquaculture products and export **0.3 million tonnes**, resulting in apparent **consumption of 2.9 million tonnes** (EUMOFA, 2022). Almost half of EU aquaculture production volume consists of bivalves and other molluscs and aquatic invertebrates, mainly thanks to the production of mussel in Spain and oyster in France.

The European Commission recently adopted new "***Strategic guidelines*** *for a more sustainable and competitive EU aquaculture for the period 2021 to 2030*". These Strategic guidelines align with the development objectives set out in the European Green Deal. The potential of EU aquaculture to support and diversify seafood production is also highlighted by the Farm to Fork Strategy. The Strategic guidelines have **several approaches**, including the following:

- building resilience and competitiveness;
- participating in the green transition;
- ensuring social acceptance and consumer information; and
- increasing knowledge and innovation.

Best practices for resilient, green and innovative sustainable aquaculture include the increased use of the following elements:

- **low or multi-trophic aquaculture** to reduce the global warming potential (GWP) and potentially sequester carbon,
- develop **innovative techniques to diversify aquaculture,** including more controllable production systems and the use of circular feed materials, and
- formally embracing the **ecosystem approach to aquaculture (EAA)**.

The EU Farm to Fork Strategy: best practices and lesson learned

The Farm2Fork (F2F) Strategy is more focused on land-based production systems but does recognise the need for an accelerated shift to **sustainable fish and seafood** production. The CFP, Open Method of Coordination (for aquaculture) and EMFAF funding will be key resources. The F2F Strategy has a great deal of synergy in current thinking in both **mitigating and adapting to climate change** in fisheries and aquaculture, and the overall progression towards carbon zero. Given the impact of high energy prices on profitability, this is a commercial as well as an environmental necessity.

A focus on **low-trophic aquaculture** is key and this needs to be supported by market development and consumer behavioural change. Higher trophic level aquaculture (e.g., most finfish farming) needs to undergo change to reduce its energy use across the life cycle (especially in aquafeed production and distribution). Better **animal welfare** and a greater move to **organic farming** will support this process.

Policy recommendations

Food security is fundamentally compromised if the supply of that food is not from **sustainable production**. This principle should **apply to all fisheries and aquaculture** products, irrespective of source, i.e., EU fisheries

production (EU stocks, shared stocks – with Norway, the UK, etc. – and those targeted by EU fleets under SFPAs), aquaculture and imports.

Based on the analysis and the knowledge collated in this study, the following **policy recommendations** are presented:

(1) Improving food security from sustainable **EU fisheries production**:

a) Sustainable **stocks** targeted by EU fleets through:

- effective **management** and enforcement, based on **sound science** that is funded sufficiently;
- bringing the **Control** Regulation up to date and tackling **IUU** fishing everywhere;
- **SFPAs** that make a positive contribution to food security in non-EU countries;
- recognising the **social and cultural importance** of fishing to value future generations of fishers.

b) Reducing the **emissions** from fishing vessels through:

- lowering energy use via **fuel efficiency** measures (funding gear and vessel modifications, removing regulatory barriers, incentivising moves to lower impact gears);
- switching to **clean** fuels (that can be used with existing engines) and **renewable** energy sources (such as batteries and hydrogen) by supporting R&D, **knowledge transfer** from other sectors and **infrastructure** requirements).

c) Addressing the **environmental** impacts of fisheries production:

- reducing benthic impact on sensitive habitats with **effective marine protected areas (MPAs)**;
- reducing **bycatch** of unwanted catch (juveniles and vulnerable species).

(2) Improving food security from **EU aquaculture production**:

- DG MARE and others (e.g., DG ENV and the Aquaculture Advisory Council, AAC) conduct a formal review of the **ecosystem approach to aquaculture** and how EU policy and member state guidance might be updated to reflect lessons learned;
- developing bivalves and other edible **low-trophic species in deeper water**, more **offshore** locations and at a larger scale; the **use of maritime spatial planning (MSP)** in allocating space to such aquaculture;
- encouraging **consumers** to increase the contribution of these lower-trophic alternatives as part of a **balanced diet** through a range of approaches; product development and consumer information provision;
- encouraging the **provision of ecosystem services** from aquaculture can be used at bay or sea basin levels, e.g., **carbon** sequestration or **nutrient** assimilation, both though private sector as well as public-private partnerships for larger-scale projects;
- innovative thinking in terms of pen design, stock containment and associated permitting to add controllability to **open water pen farming**, this should be supported by a more forward-thinking approaches in MSP that encourage planners to allocate specific areas to aquaculture without compromising their environmental integrity or conflicting with other sea usage;
- using **audits** of energy and other ecological resources **across aquaculture value chains** as a guide for management decisions;
- reviewing and improving **certification standards** and industry management codes and guidance documents to ensure that they reflect ecologically efficient approaches to farm management and value chains, and thus encourage the sector to **contribute to climate change mitigation**.

(3) Improving food security of **imported seafood**:

- Supporting international producers in sustainable seafood production by **improving regional fisheries management**, supporting **marine resource management in non-EU countries** and **knowledge-sharing** on sustainable aquaculture production;
- ensuring a **level playing field** for EU producers, encouraging improved performance and maintaining competitiveness by ensuring imported seafood meets defined environmental standards;
- revised **marketing standards** to cover more imports and include environmental criteria;
- improved **traceability systems** to minimise seafood fraud;
- clear consumer **labelling** and awareness-raising.

(4) Improving food security in the **seafood supply chain**:

- Improving the **efficiency** of supply chains with shorter supply chains; better **cold chains** and increased value added at point of **landing**;
- product **innovation** to create attractive, convenient products from low-carbon sources and by-products;
- promoting consumption of **low-carbon seafood** choices (small pelagics and low-trophic culture: bivalves and algae) with **improved information** on product nutrition and environmental impact.

Further information

This executive summary is available in the following languages: English, French, German, Italian and Spanish. The study, which is available in English, and the summaries can be downloaded at: https://bit.ly/48QNfzF

More information on Policy Department research for PECH:
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