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Special report

EU aquaculture policy

Stagnating production and unclear results despite increased EU funding

CURIA RATIONUM

EUROPEAN
COURT
OF AUDITORS

Contents

Executive summary

I Aquaculture production contributes to food security and is promoted by the European Green Deal as a source of protein with a lower carbon footprint. In 2020, EU aquaculture accounted for less than 1 % of global aquaculture production and imported products represented more than 60 % of the EU's seafood supply. The sustainable development of aquaculture is one of the main objectives of the common fisheries policy and an important component of the Blue Economy strategy.

II With support from the European Maritime and Fisheries Fund (€1.2 billion allocated in 2014-2020) and its successor, the European Maritime, Fisheries and Aquaculture Fund (€1.0 billion allocated in 2021-2027), the common fisheries policy's aim is to grow aquaculture sustainably and deliver economic, social and employment benefits.

III We assessed whether the Commission and the member states have promoted the sustainable development of EU aquaculture effectively. We looked at the 2014-2020 period, as well as the provisions and programmes that had already been established for the 2021-2027 period at the time of our audit.

IV We expect our audit to contribute to the policy discussions impacting EU aquaculture policy, particularly in the context of the mid-term evaluation of the European Maritime, Fisheries and Aquaculture Fund, planned for 2024, and of the assessment of the progress made in implementing the EU strategic guidelines for aquaculture, planned for 2025. We also aim to increase transparency and accountability in the use of EU funds for aquaculture.

V We conclude that while the EU's strategic framework for aquaculture has improved in recent years, EU aquaculture has seen little growth and there are no reliable indicators to track the sector's sustainability or the contribution of the increased EU funding to the development of EU aquaculture.

VI We found that the EU strategic documents have improved in terms of promoting the sustainable development of the aquaculture sector. At member state level, multiannual strategic plans for aquaculture were generally aligned with the Commission's guidelines, but some key strategies for the environment did not take aquaculture into account properly. Moreover, spatial planning and licensing procedures still hampered the growth of the aquaculture sector.

VII The amount of funding allocated exclusively to aquaculture for the 2014-2020 period was more than three times the total spent in 2007-2013. The need for such a large increase was not well demonstrated, and the funds allocated may have been more than necessary, since member states' absorption rates for aquaculture funding were low compared to other priorities, despite some additional absorption resulting from COVID-19 mitigation measures. Facing low absorption rates, member states often reallocated financial resources to those measures attracting greater interest from the aquaculture sector, and financed almost all eligible projects, irrespective of their expected contribution to the objectives of EU support.

VIII Since 2014, EU aquaculture production has stagnated in terms of volume, and employment has decreased. However, the sector has seen an increase in the value of production. There are currently no indicators available to monitor the environmental sustainability of EU aquaculture, but the Commission is working to fill the knowledge gaps. The data currently reported in the European Maritime and Fisheries Fund's monitoring system is not adequate to assess the fund's contribution to the aquaculture sector's environmental and social sustainability or its competitiveness.

IX We recommend that the Commission:

(1) support member states in addressing the obstacles to a sustainable development of EU aquaculture;

(2) improve targeting of EU funds; and

(3) enhance the monitoring of EU funding's performance and of environmental sustainability.

Introduction

The EU's aquaculture policy

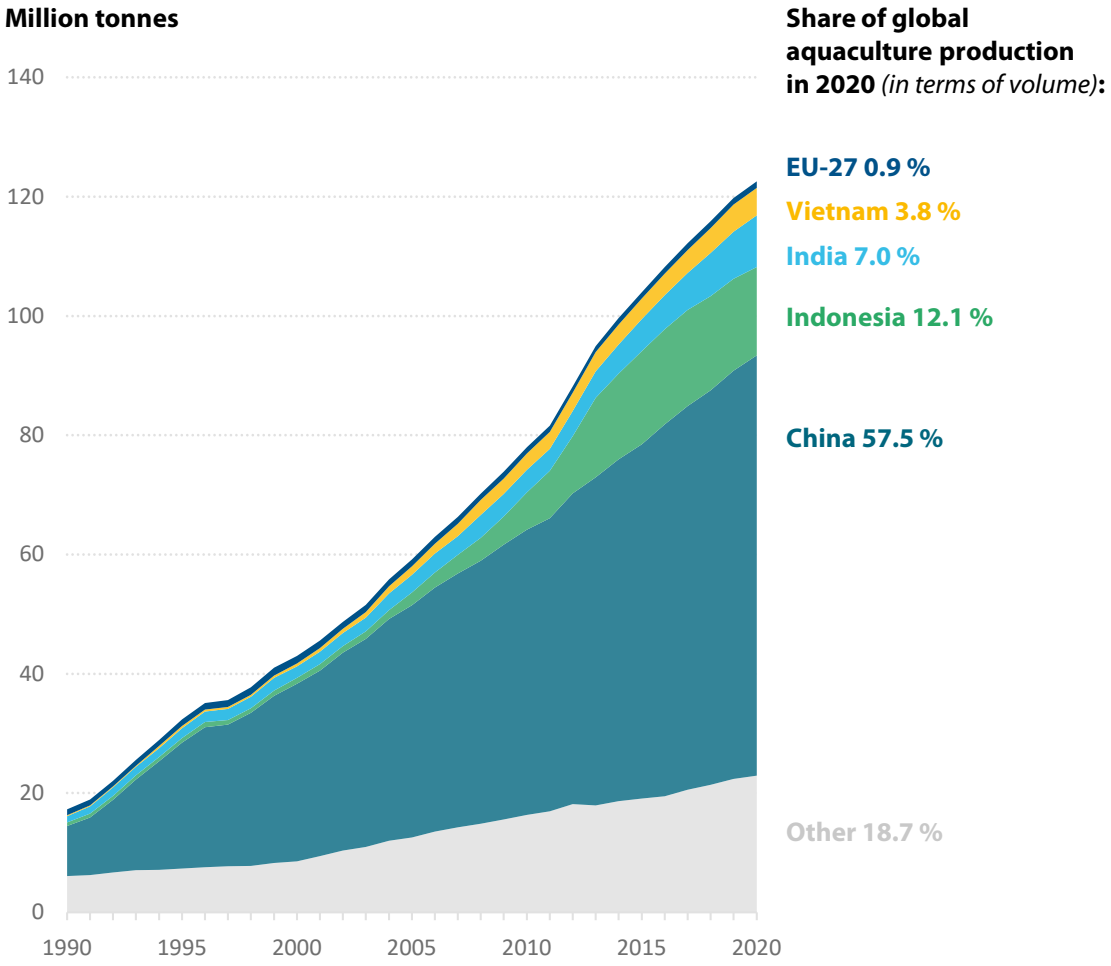
01 Aquaculture refers to the farming of fish, shellfish, algae and other aquatic organisms. It can take place in marine, brackish or inland waters, as well as in land-based facilities equipped with water recirculation systems. The sustainable development of aquaculture (in environmental, economic and social terms) is one of the main objectives of the common fisheries policy (CFP).

02 Aquaculture is an important element of the EU's Blue Economy strategy. Aquaculture production contributes to food security and is promoted by the European Green Deal as a source of protein with a lower carbon footprint. Globally, on average, aquaculture's carbon footprint is much lower than that of beef, and similar to that of pork and chicken[1]. The carbon footprint varies greatly across farmed species, and is lowest for non-fed aquaculture, such as shellfish farming. Aquaculture can also take the pressure off wild fish stocks and agricultural land. The Commission considers that "a strategic and long-term approach for the sustainable growth of EU aquaculture is therefore more relevant today than ever".

03 Aquaculture is one of the world's fastest growing food sectors, but the EU occupies a very small position therein. In 2020, the EU's total aquaculture production amounted to 1.1 million tonnes, accounting for less than 1 % of the global total (123 million tonnes) (see ***Figure 1***). EU aquaculture production was worth €3.6 billion in 2020.

[1] E.g. Claude E. Boyd, Global Seafood Alliance, "Assessing the carbon footprint of aquaculture" and MacLeod, M.J. et al., "Quantifying greenhouse gas emissions from global aquaculture", Sci Rep 10, 11679 (2020).

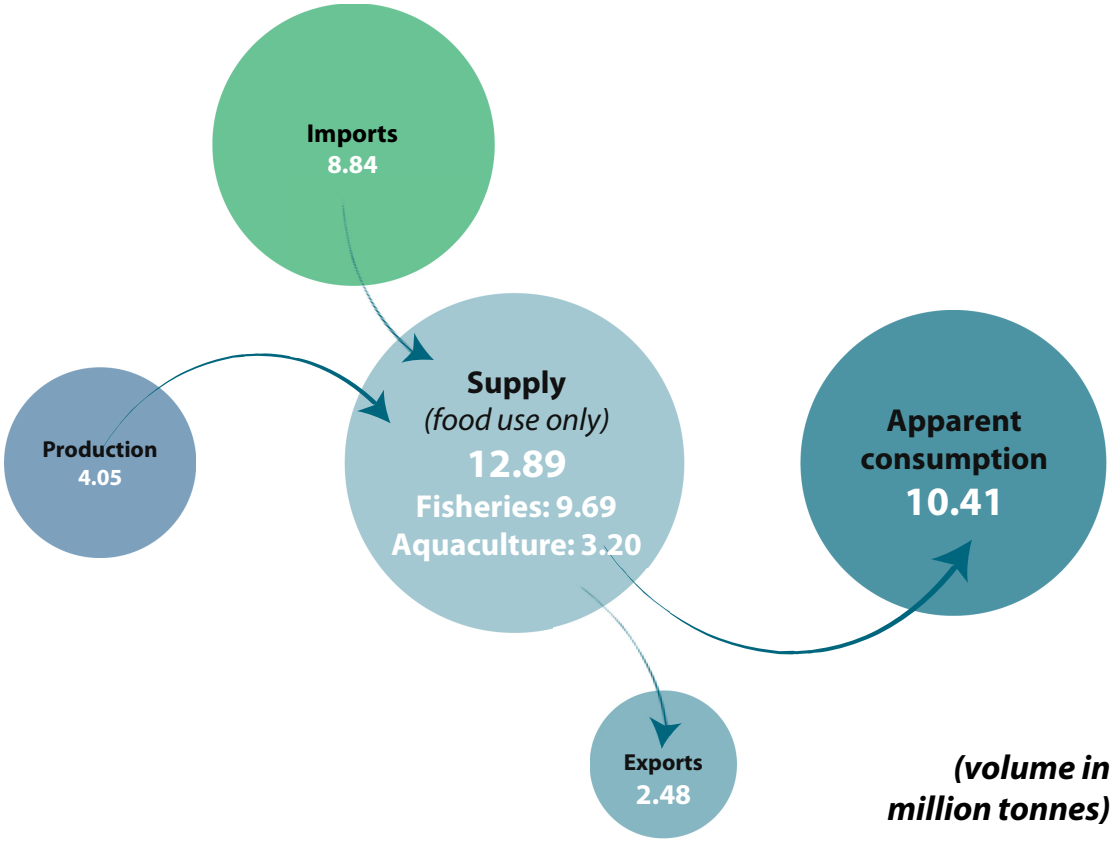
Figure 1 – Global aquaculture production, 1990-2020



Source: ECA, with data from the World Bank.

04 The EU seafood market is dominated by products originating from fisheries, which account for 75 % of available seafood products. In 2020, imported products represented more than 60 % of the EU's seafood supply (see ***Figure 2***).

Figure 2 – EU fishery and aquaculture products supply and consumption, 2020



Source: ECA, based on EUMOFA – The EU fish market – 2022 edition.

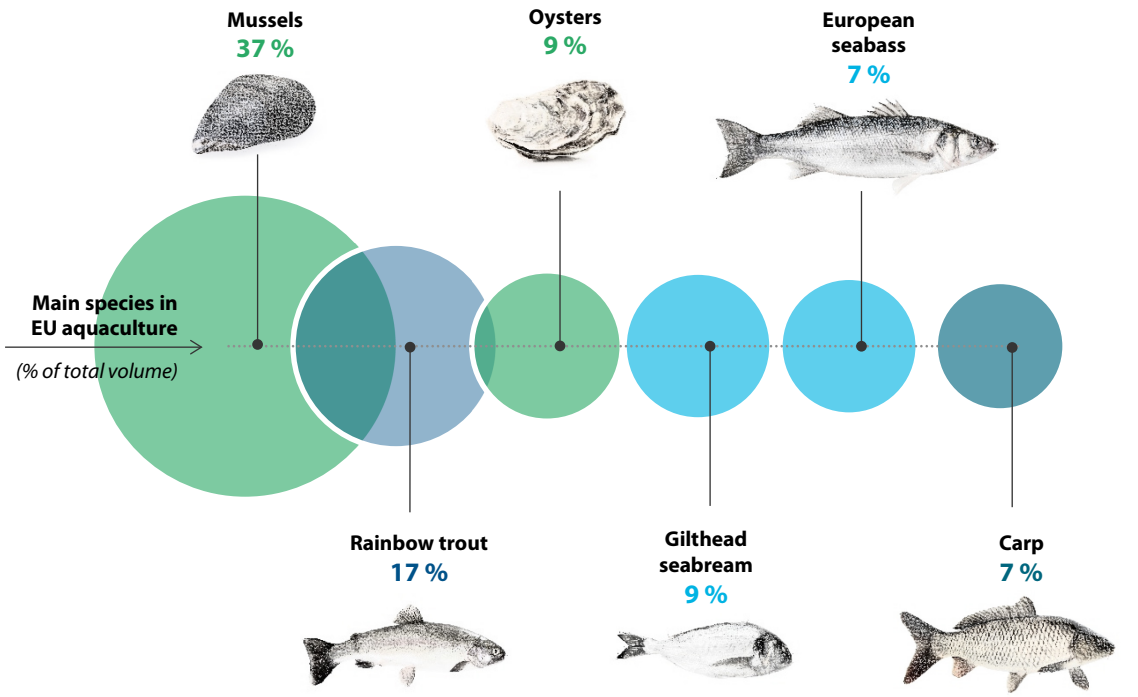
05 The development of the EU's aquaculture sector is covered by the CFP Regulation and supported by a dedicated fund: the European Fisheries Fund for the 2007-2013 period, the European Maritime and Fisheries Fund for 2014-2020, and the European Maritime, Fisheries and Aquaculture Fund for 2021-2027. With support from these funds, the aim of the CFP is to ensure the long-term environmental sustainability of aquaculture activities and to achieve economic and social benefits.

06 Aquaculture can put pressure on the environment. Several EU rules on the environment, while not exclusively or specifically addressing aquaculture, deal with issues that impact, or are impacted by, aquaculture (see paragraphs ***30***-***36***). In addition, a number of EU policies, such as the Farm to Fork strategy and the Blue Economy strategy, cover aquaculture and aquaculture products among a larger range of sectors and products.

Key figures on EU aquaculture production

07 EU aquaculture production is highly concentrated in terms of both the species farmed (see ***Figure 3***) and the EU member states in which it takes place.

Figure 3 – Main aquaculture species farmed in the EU, 2020

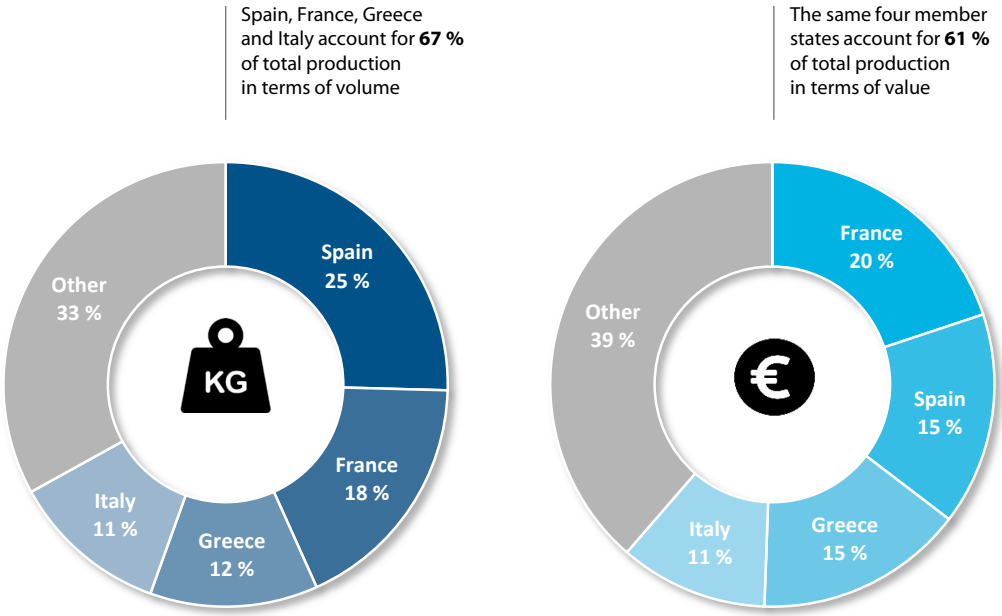


Source: ECA, based on EUMOFA – The EU fish market – 2022 edition, and FAO FishStatJ.

For the images, from left to right, © Sergey Chayko, Irina K., zcy, delarue, xamtiw, nosyrevy, stock.adobe.com.

08 ***Figure 4*** shows that, in terms of volume, in 2020 the main aquaculture-producing EU countries were Spain, France, Greece and Italy, accounting for 67 % of total EU production. Depending on the products farmed, the member states' ranking in terms of production value may differ from their ranking in terms of production volume, for example in the case of France and Spain.

Figure 4 – Main EU aquaculture producers, 2020



Source: ECA, with data from Eurostat (fish_aq2a) and EUMOFA.

EU funding available to promote EU aquaculture

09 In 2014-2020, EU aquaculture projects could receive funding through several EU instruments. The European Maritime and Fisheries Fund (EMFF), now superseded by the European Maritime, Fisheries and Aquaculture Fund (EMFAF), was the key EU support programme for EU aquaculture producers. The EMFF has six main priorities, known as "Union priorities"[2]. Union priority 2 (UP2), "Fostering environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based aquaculture", relates directly and exclusively to aquaculture. The EU (excluding the UK) originally allocated €1.2 billion under UP2 over the 2014-2020 period.

10 The EMFAF has four priorities[3]. Priority 2, specific objective 2.1, "Promoting sustainable aquaculture activities, especially strengthening the competitiveness of aquaculture production while ensuring that the activities are environmentally sustainable in the long term" relates directly to aquaculture. The EU allocated €1.0 billion under specific objective 2.1 over the 2021-2027 period.

[2] Article 6 of Regulation (EU) 508/2014.

[3] Article 3 of Regulation (EU) 2021/1139.

11 Both funds may also contribute to the development of the aquaculture sector under other Union priorities, as they provide financial support for e.g. research, market organisation, and the processing and marketing of fishery and aquaculture products. The LIFE programme for the environment, the Horizon 2020 and Horizon Europe research programmes and the Interreg programme for territorial cooperation can also provide financial support for EU aquaculture; however, these funds are not earmarked specifically for aquaculture.

Roles and responsibilities

12 The Commission shares responsibility with the member states for developing the EU's aquaculture policy as a whole and managing the EMFF/EMFAF. The Commission approves the member states' operational programmes for the EMFF/EMFAF, and revisions thereto, and also monitors the financial execution and the performance of the funds. The Commission provides member states with strategic guidelines on the EU's aquaculture policy, which member states are invited to take into account when preparing their multi-annual national strategic plans.

13 The Scientific, Technical and Economic Committee for Fisheries (STECF) established in 2005[4], supports the Commission's work with scientific advice, particularly on the application of marine and fisheries biology, fisheries economics and governance, ecosystem effects of aquaculture, or on the collection, management and use of aquaculture data.

14 Member states established their own frameworks for the sustainable development of their respective aquaculture sectors, including administrative procedures and spatial planning. Since 2013, the CFP Regulation[5] has required member states to draw up multiannual national strategic plans for aquaculture (MNSPs, or "plans for aquaculture"). The Commission cooperates with member states via the "open method of coordination" – a voluntary process through which the Commission and the member states exchange information and good practice. Member states also manage the EMFF and EMFAF by selecting and monitoring projects based on the priorities in their operational programmes and in their MNSPs.

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[4] Commission Decision 2005/629/EC.

[5] Article 34(2) of Regulation (EU) 1380/2013.

Audit scope and approach

15 We assessed whether the Commission and the member states promoted the sustainable development of EU aquaculture effectively. We looked at (a) the Commission's and member states' design of EU aquaculture policy, (b) the use of EU funds specifically earmarked for aquaculture and (c) whether the sustainability, growth and competitiveness objectives have been achieved. We have not specifically assessed the impact of trade, research and food safety policies on the development of the sector.

16 We obtained evidence from:

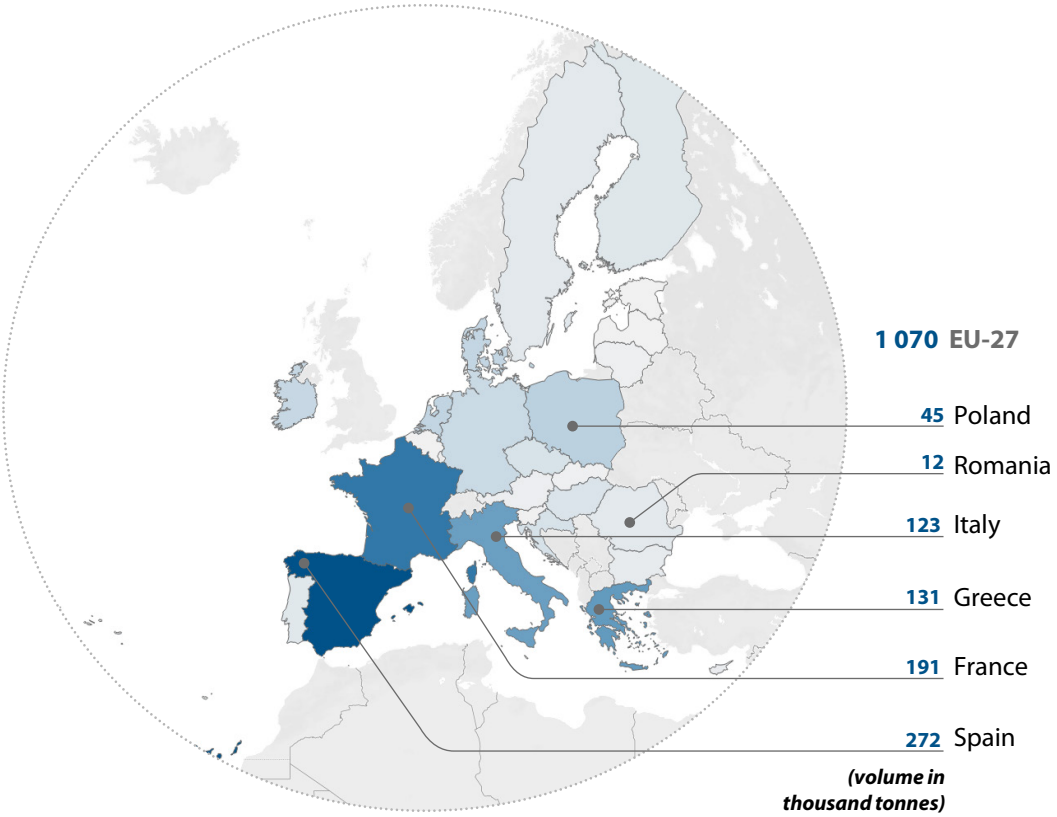
(a) meetings and e-mail exchanges with representatives of the Commission's Directorates-General for Maritime Affairs and Fisheries (DG MARE) and for the Environment (DG ENV);

(b) a documentary review of specific legislation and studies, including reports by the STECF and by the Commission's Joint Research Centre, of impact assessments and audit reports, as well as evaluations and monitoring information; we also used statistical data provided by Eurostat and funding management data from the Commission's dedicated databases;

(c) a documentary review for a sample of six member states selected on the basis of the size of their aquaculture production and on their EMFF expenditure; the selected member states were: Greece, Spain (Galicia), France, Italy (Emilia-Romagna), Poland and Romania. Together they covered around 71 % of the EU's aquaculture production in 2020 by volume (see ***Figure 5***) and accounted for 61 % of the EMFF funds committed by the end of 2021 under Union priority 2;

(d) audit visits to two of the six member states selected for a documentary review: Spain (Galicia) and Poland. The audit programme for each of these two visits included meetings with the member state authorities, a structured meeting with stakeholders (representatives of the aquaculture sector and environmental NGOs) and visits to four and two aquaculture projects, respectively.

Figure 5 – Annual aquaculture production of the selected member states, 2020



Source: ECA, with data from Eurostat (fish_aq2a).

17 The audit covered the 2014-2020 period, as well as the provisions and programmes already in place for the 2021-2027 period by the time of our audit. We also looked at older strategic documents where relevant. For comparability, we generally refer to the 27 current EU member states (EU-27), excluding the UK prior to its withdrawal from the EU in 2020, unless otherwise indicated (EU-28). In 2020, the UK aquaculture production amounted to 217 thousand tonnes, 89 % of which was salmon.

18 With this report, we expect to contribute to the policy discussions impacting EU aquaculture policy, particularly in the context of the EMFAF mid-term evaluation, planned for 2024, and of the assessment of the progress made in implementing the strategic guidelines, planned for 2025. We also aim to increase transparency and accountability in the use of EU funding for aquaculture.

Observations

The EU framework has improved, but some weaknesses persist in member states

EU guidance promoting the sustainable development of aquaculture has improved

19 EU aquaculture policy should evolve taking account of the weaknesses and shortcomings identified in the past. It should also address the current challenges related to environmental and climate sustainability, and food security.

20 The main tools the Commission has to influence the member states' actions are the right to propose legislative instruments and its capacity to approve member states' programmes for the use of EU funds. For wider policy issues and the development of the member states' aquaculture strategies, the Commission establishes non-binding strategic guidelines on common priorities and targets, and applies the open method of coordination for the sustainable development of aquaculture ("the open method")[6] to exchange information and good practice (see paragraphs ***12*** and ***14***). We checked whether and how the Commission used the tools at its disposal to promote the sustainable development of EU aquaculture.

2014-2020 period

21 In 2011, the impact assessment accompanying the EMFF proposal identified weaknesses in the EU aquaculture sector and obstacles it had faced in the previous programming period:

— EU aquaculture was exposed to many important constraints such as competition for space and access to water, lack of a level playing field between the EU and non-EU countries, and high administrative burden;

— according to the mid-term evaluation of the EFF[7], measures to reduce the impact of aquaculture on the environment were hardly used.

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[6] As laid down in Article 34 of Regulation (EU) 1380/2013.

[7] Interim evaluation of the European Fisheries Fund (2007-2013), February 2011.

22 The EMFF Regulation was intended to address these issues by setting objectives and making funds available for specific actions (see ***Box 1***).

Box 1

The EMFF set out to address weaknesses that the Commission had identified in EU aquaculture policy

The impact assessment accompanying the EMFF proposal recognised that some types of intensive aquaculture might have negative environmental impacts, such as sedimentation, water pollution, genetic interaction with wild organisms or the spread of diseases and parasites.

In order to address the potential lack of environmental sustainability of aquaculture activities and to help enhance positive effects where possible, the EMFF Regulation includes two specific objectives:

— "Protection and restoration of aquatic biodiversity and the enhancement of ecosystems related to aquaculture and the promotion of resource-efficient aquaculture"; and

— "Promotion of aquaculture having a high level of environmental protection, and the promotion of animal health and welfare and of public health and safety".

Financial support for these two specific objectives is made available through the EMFF Regulation.

23 In 2013, the Commission adopted its strategic guidelines for the sustainable development of aquaculture[8]. These guidelines included a list of concrete actions that were carried out by the Commission via the open method (see the ***Annex***).

2021-2027 period

24 The 2018 impact assessment accompanying the EMFAF proposal, the 2020 interim evaluation of the open method and the 2019 Commission evaluation on the marketing standards framework for aquaculture products all identified almost identical weaknesses and obstacles hampering the sustainable development of EU aquaculture to the ones identified in 2011 (see paragraph ***21***). Similarly, the 2021 strategic

[8] Strategic guidelines for the sustainable development of EU aquaculture, COM/2013/0229.

guidelines[9] pointed out areas hindering the development of EU aquaculture that were comparable to the ones identified in the 2013 strategic guidelines.

25 The EMFAF Regulation is mostly consistent with recent cross-cutting EU policies that concern aquaculture (see paragraph ***06***). Some of the current challenges, such as the promotion of algae production or sustainable feed systems, though not specifically mentioned in the Regulation, are recognised by the Commission's strategic guidelines in setting objectives to make EU aquaculture more sustainable and competitive between 2021 and 2030 (see ***Box 2***).

[9] Strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030, COM(2021) 236.

Box 2

Current aquaculture challenges covered by the Commission's strategic guidelines

Organic production

— The Farm to Fork strategy set the objective of significantly increasing organic aquaculture by 2030.

— The 2021 strategic guidelines include the promotion of the development of organic aquaculture in the list of issues to be addressed.

Algae production

— The Farm to Fork strategy indicates that algae should become an important source of alternative protein for a sustainable food system and global food security. The Commission communication on Blue Economy emphasises the potential of algae also as a source to produce chemicals and biofuels.

— The 2021 strategic guidelines make a number of references to algae and point to a separate and specific initiative, launched in November 2022, to support the production, safe consumption and innovative use of algae.

Sustainable feed system

— Sustainable feed systems contribute to reducing the environmental and carbon footprint of aquaculture products. The 2021 strategic guidelines recognise the importance of ensuring sustainable feed systems, which includes limiting feed producers' reliance on fish meal and fish oil taken from wild stocks.

The European Parliament, in its 2022 resolution on striving for a sustainable and competitive EU aquaculture, reiterated the importance of these issues.

26 With the aim of supporting the member states, the aquaculture industry and other relevant stakeholders in the implementation of the 2021-2030 strategic guidelines, the Commission launched the EU Aquaculture Assistance Mechanism. The mechanism is set to provide logistical, administrative and technical assistance. It has developed a knowledge base bringing together guidelines, good practice and other relevant information about sustainable aquaculture in the EU. With the support of this mechanism, the Commission is currently planning to develop and disseminate guidance on environmental performance, administrative procedures and access to space.

Some key national strategies for the environment do not take aquaculture into account properly

27 In order for EU aquaculture policy to achieve its objectives, member states' plans for aquaculture should be aligned with the Commission's strategic guidelines (see paragraph ***12***) and the CFP Regulation. Operational programmes for the use of EU funds should be consistent with the national plans for aquaculture. We checked whether this was the case.

28 A number of other member state strategic documents, while not exclusively addressing aquaculture, cover policy areas that impact, or are impacted by, aquaculture, especially those relating to the environment. These include marine strategies; river basin management plans; prioritised action frameworks, which set out actions to be taken to protect Natura 2000 areas; and action plans on pathways of invasive alien species. In order to ensure that action is coordinated and successful in achieving the aquaculture policy objectives, the different strategic documents impacting aquaculture should be consistent. During the 2014-2020 period, the Commission issued guidance[10],[11] aimed at increasing this consistency. We checked whether and how member states used this guidance, and whether the various documents addressed the potential environmental impacts of aquaculture and the potential bottlenecks to its development.

Multiannual national strategic plans and operational programmes

29 We reviewed the key aquaculture documents for the member states selected for this audit: their national plans for aquaculture and EMFF/EMFAF programmes, for both 2014-2020 and 2021-2027. EU law regulates the content of these documents[12]. The former are meant to contribute to the development of aquaculture activities and include the member states' objectives and measures to achieve them. The latter include the member states' strategies for using the EU funding. We found that the content of these documents generally met the EU requirements and, overall, was consistent with the Commission's strategic guidelines.

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[10] Commission guidance document on the application of the Water Framework Directive and the Marine Strategy Framework Directive in relation to aquaculture, SWD(2016) 178.

[11] Guidance on Aquaculture and Natura 2000.

[12] Article 34 of Regulation (EU) 1380/2013, Article 18 of Regulation (EU) 508/2014, Article 27 of Regulation (EU) 2021/1139 and Article 22 of Regulation (EU) 2021/1060.

Marine strategies and action plans on pathways of invasive alien species

30 The Marine Strategy Framework Directive requires member states to achieve good environmental status (in terms of health, biodiversity, productivity and long-term sustainability) in EU marine waters and to draw up marine strategies to this end. The directive considers the pressures on the seas and oceans, including those associated with aquaculture, in an attempt to address the cumulative impact of human activities. According to the Commission's guidance[13], the largest potential environmental impact of aquaculture relevant to the members states' marine strategies is the introduction of alien species. Specific EU rules apply to the use of alien species in aquaculture[14]. Moreover, EU rules[15] require member states to have action plans on the pathways of invasive alien species.

31 The marine strategies of four member states (Greece, France, Poland and Romania) of the six covered by this audit did not contain aquaculture-related indicators in this area, for example monitoring leaks in aquaculture facilities or the existence of control programmes. Moreover, at the time of our audit, two of these member states (Greece and Romania) did not yet have an approved action plan on pathways of invasive alien species.

32 Other potential impacts of aquaculture on marine waters include habitat degradation, contamination and nutrient enrichment. The Commission considers that such impacts are currently unlikely to occur on a sufficient scale to significantly affect the good environmental status of relatively large sea areas. The marine strategies of each of the six selected member states paint a similar picture, identifying aquaculture as a potential negative pressure on the achievement of good environmental status, albeit one that does not pose a significant risk. Of the six member states, the pressures on marine waters from aquaculture are potentially greatest in Greece, where production mainly consists of marine fish, but the impacts of aquaculture production units on the environment are still reversible and confined to specific geographical areas, according to the Greek authorities.

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[13] Commission guidance document on the application of the Water Framework Directive and the Marine Strategy Framework Directive in relation to aquaculture, SWD(2016) 178, Table 1.

[14] Regulation (EC) 708/2007 concerning use of alien and locally absent species in aquaculture.

[15] Article 13 of Regulation (EU) 1143/2014.

River basin management plans

33 The Water Framework Directive aims to protect and improve the chemical and ecological status of EU water bodies, including lakes, rivers and coastal waters. To do so, it requires member states to draw up river basin management plans (RBMPs). We reviewed a selection of the plans in force during the audited period (second-cycle RBMPs), as well as the Commission's assessments of those plans for the six member states selected.

34 Along with actions aimed at strengthening inspections and improving monitoring, Greece's RBMPs introduced a measure on licensing conditions for aquaculture units. The measure allows the establishment or extension of marine aquaculture units only as long as they do not deteriorate the environmental status of the marine areas leased for this purpose. The plans of Poland and Romania, which specialise in freshwater aquaculture, mentioned aquaculture as a pressure in some river basin districts, but identified no measures or funding to address these issues (see ***Box 3***).

Box 3

Pressures from aquaculture not adequately addressed in second-cycle RBMPs

According to the Commission's assessment of the Polish plans, up to 10 % of surface water bodies in the Vistula and Oder River Basin Districts were not expected to achieve good status by 2027 due to pressures from the aquaculture sector, but the respective RBMPs identified no measures to address the issue.

In Romania, aquaculture was one of the two most significant pressures on lakes, along with agriculture, together affecting 11 % of water bodies. However, the RBMPs reported no gaps to be filled as regards aquaculture in order to achieve their environmental objectives. This means that no measures had been identified to address the pressure.

Source: Commission Staff Working Documents "Second River Basin Management Plans" for Poland (SWD(2019) 53) and Romania (SWD(2019) 52).

35 Most aquaculture production in Spain, Italy and France consists of shellfish (see ***Picture 1***), which do not require feed input and actually contribute to reducing nutrient concentration due to their water filtering capacity. For this reason, RBMPs should

equally protect shellfish waters against pollution[16]. For example, the plans for Galician waters (Spain), the Seine and Norman coastal waterways (France) and the Po River (Italy) all recognise protected shellfish waters. This is important not only for health reasons but also for economic reasons; insufficient water quality may also be a factor constraining aquaculture growth.

Picture 1 – Shellfish rafts off the coast of Galicia (Spain)

Source: ECA.

Prioritised action frameworks

36 In principle, aquaculture activities can take place in Natura 2000 areas. For instance, traditional extensive fish breeding ponds in Poland (see ***Picture 2***) can be located within Natura 2000 areas, and the Polish prioritised action framework indicates that they may be eligible for EU funding dedicated to aquaculture providing environmental services. However, two of the six prioritised action frameworks

[16] Commission guidance document on the application of the Water Framework Directive and the Marine Strategy Framework Directive in relation to aquaculture, SWD(2016) 178, pp. 6-7.

reviewed (those of France and Italy) did not include measures addressing specific aquaculture-related needs.

Picture 2 – Traditional fish breeding ponds in Poland

Source: © Chawran, stock.adobe.com.

Member states' spatial planning and licensing procedures still hamper aquaculture growth

37 Improving spatial planning was one of the needs recognised in the 2013 strategic guidelines. The guidelines also mentioned the importance of simplifying administrative procedures in order to contribute to developing the aquaculture sector. We assessed the progress made in these two areas over the 2014-2020 period.

Maritime spatial planning

38 Member states had made some progress in maritime spatial planning[17], but such planning was still affected by weaknesses hampering its ability to contribute to the growth of the aquaculture sector. Three of the six member states selected (Greece, Italy and Romania) did not have approved maritime spatial plans at the time of our

[17] See also our special report 22/2023: "Offshore renewable energy in the EU – Ambitious plans for growth but sustainability remains a challenge", in particular paragraphs 59-66.

audit, even though this was compulsory by March 2021[18]. These three member states did have draft maritime spatial plans, but they were under consultation before approval. Spain only approved its maritime spatial plan in February 2023. The Commission indicated that, as of May 2023, a total of six member states had not yet established maritime spatial plans[19], and Portugal had additionally not yet done so in respect of the Azores. The Commission had sent reasoned opinions – the last step before bringing any infringement procedure before the Court of Justice – to five of these countries.

39 The total space still available for new aquaculture sites was not known in any of the six member states covered by our audit. In Spain, however, geographic information system (GIS) mapping tools[20] were available to disseminate geographic information relating to aquaculture, such as areas theoretically suitable for aquaculture or subject to specific restrictions. A similar tool was being developed in Italy (Emilia-Romagna), but was not yet operational at the time of our audit. In France, a GIS tool is also available, and is currently being updated to include the location of existing aquaculture sites. These tools can facilitate planning and encourage further development of the sector.

Licensing procedures

40 The lengthy procedures for obtaining the licences needed to start an aquaculture activity have been repeatedly recognised in the past as an obstacle to developing the aquaculture sector[21]. Smooth and predictable licensing procedures are needed to ensure a dynamic aquaculture sector. During our audit, the Commission also referred to the length and uncertain outcome of licensing procedures as deterrents to investment and a reason for low absorption of EU funds.

41 We asked the six selected member states to provide us with data on the duration of licensing procedures in the 2014-2020 period. The data we received was often patchy and difficult to compare over the period or across member states. While the average time taken to obtain licences had decreased in a few cases, such as for

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[18] Article 15(3) of Directive 2014/89/EU.

[19] Bulgaria, Greece, Croatia, Italy, Cyprus and Romania.

[20] AcuiVisor and Sigremar.

[21] Study on an interim evaluation of the Open Method of Coordination for the sustainable development of EU Aquaculture, June 2019. See also our special report 10/2014: "The effectiveness of European Fisheries Fund support for aquaculture".

extensive aquaculture in Romania or the creation of new holdings in France, in most cases it had remained stable, increased, or there was no clear trend.

42 In Poland, no new aquaculture holdings were set up in 2014-2020. In Galicia (Spain), no new licenses for maritime aquaculture have been granted in the period, except for experimental aquaculture. In Italy, uncertainty surrounding the duration of existing licenses, coupled with the temporary prohibition on issuing new ones, risked discouraging both new entrants and investment in modernising the sector (see ***Box 4***).

Box 4

Examples of administrative barriers

In Galicia (Spain), a 2008 regional law requires new licenses for maritime aquaculture to be obtained through an open competition held by the public authorities. No such competition has taken place since the requirement was introduced. According to the regional authorities, a study is ongoing on the carrying capacity of the Galician estuaries prior to assessing the possibility of granting new licenses.

In Italy, existing licenses for maritime aquaculture were extended by law in 2010 until the end of 2020, and again in 2018 for 15 years, until December 2033. The 2018 law also provided for a reorganisation of licenses and license-granting procedures, pending which the issuance of new licenses was understood to be suspended. A new law in August 2022 repealed the provisions constraining the issuance of new aquaculture licenses.

A large increase in available EU funding, followed by relatively low absorption and undemanding project selection criteria

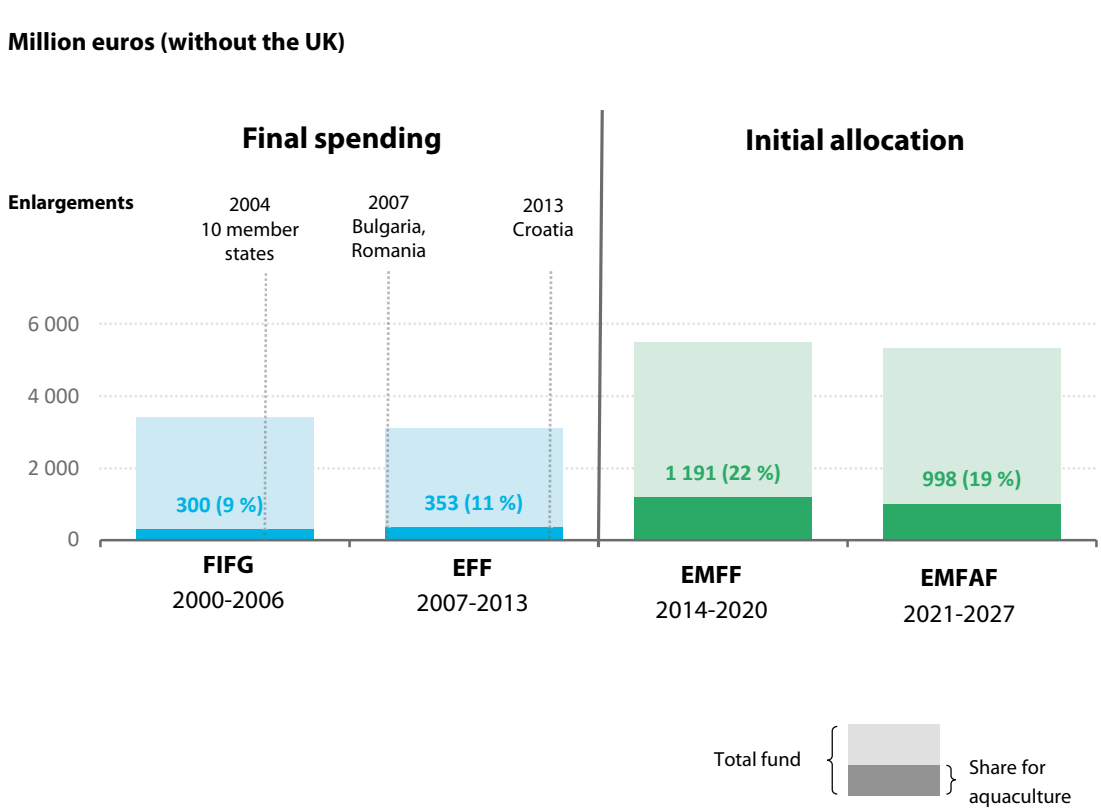
43 EU budgeting and budget implementation are required to abide by the principle of "sound financial management" – which includes the principles of economy, effectiveness and efficiency. The principle requires member states to plan the use of the EU funds efficiently to achieve EU policy objectives, and the Commission to oversee this process. We checked how the principle was applied in practice over the period covered by our audit.

The need for the large increase in EU funds allocated to aquaculture over the 2014-2020 period was not well demonstrated

44 The allocation of EU funds to aquaculture must be based on a needs analysis, determining how much funding is required to finance projects which address the sector's needs and contribute to the specific objectives set. We reviewed the programming documents for the 2014-2020 period to assess whether the sector's funding needs had been adequately quantified.

45 ***Figure 6*** shows that the amounts allocated through the EMFF and the EMFAF are much higher than those spent up until 2014, both in absolute terms and as a proportion of each instrument's total available funding.

Figure 6 – Aquaculture spending/allocation as proportion of total over time



Note: FIFG – Measure 32; EFF – Measure 2.1; EMFF – UP2; EMFAF – specific objective 2.1. The amounts display the EU contribution, without national co-financing.

Other measures and priorities may fund activities relating to aquaculture. However, these funds are not counted as it is not possible to distinguish the funded activities that relate to aquaculture from those that relate to fisheries.

Source: ECA, based on FIFG –Ex-post evaluation of the FIFG; EFF – information provided by the Commission, based on data submitted by member states pursuant to article 40 of Regulation (EC) No 498/2007; EMFF and EMFAF – funding management data from the Commission's databases, based on the member states' operational programmes.

46 The EU spent around €300 million in the aquaculture sector over the 2000-2006 period, and around €350 million over the 2007-2013 period, as the number of member states increased. These amounts represent 9-11 % of total spending under the Financial Instrument for Fisheries Guidance (FIFG) and EFF, respectively. In 2014-2020, based on the operational programmes originally approved by the Commission, the allocation to UP2 was €1.2 billion – about 22 % of the total EMFF allocation. The initial allocation to aquaculture for the 2014-2020 period was more than three times the amount spent in 2007-2013.

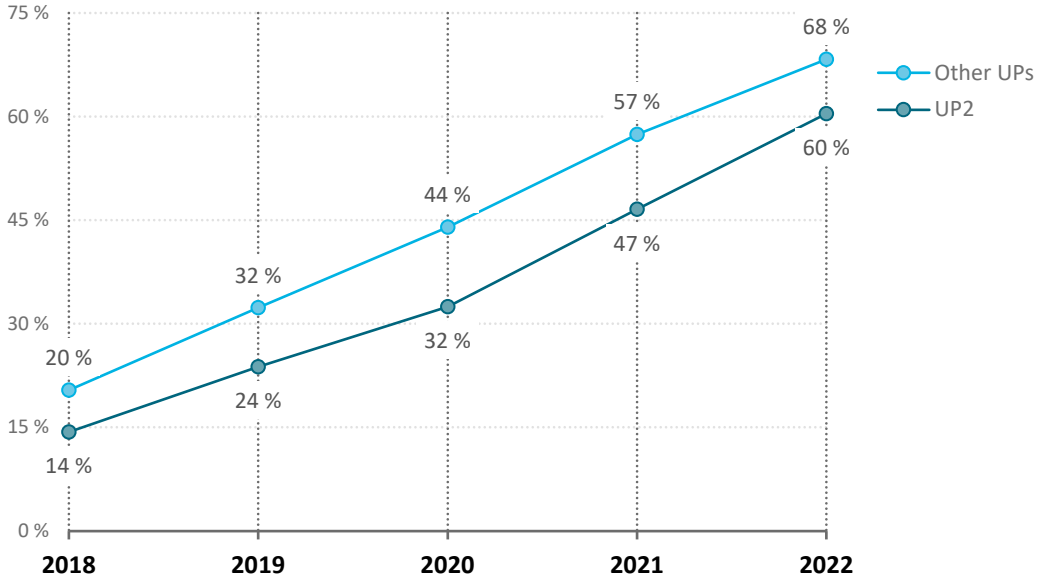
47 The Commission and some member states referred to the stronger strategic focus on aquaculture in the 2014-2020 period, as well as market demand and the pressure on wild fish stocks, to explain the increased financial allocation to aquaculture. The operational programmes in our sample included a qualitative analysis, which could explain an increase in available funding (see paragraph ***54***). However, neither the Commission's impact assessment accompanying the EMFF proposal, nor the member states' operational programmes, sufficiently demonstrated the need for such a large increase, e.g. by a quantified analysis to support allocating more than three times the amount previously spent.

48 During the programming period, the overall allocation to aquaculture decreased by around €158 million until the end of 2022, 13 % of the initial allocation. Four of the six selected member states reduced the amounts allocated to aquaculture, in particular Italy (minus 33 %) and Poland (minus 32 %). On the contrary, the allocation increased in France (plus 44 %) and in Romania (plus 8 %). The EMFAF initial allocation has decreased as compared to the EMFF's, but remains significantly higher than the amounts spent in 2000-2013.

Low absorption rate compared to other priorities, despite the increase resulting from COVID-19 mitigation measures

49 The "absorption rate" of an EU fund refers to the amounts actually paid to the beneficiaries as a proportion of the amounts allocated to a member state under the relevant EU Regulation. We reviewed the EMFF absorption rate and found that, over the whole 2014-2020 programming period, Union priority 2's absorption rate was consistently lower than that of the other Union priorities (see ***Figure 7***).

Figure 7 – EMFF Union priority 2 absorption rates compared to other Union priorities (in %), 2018-2022



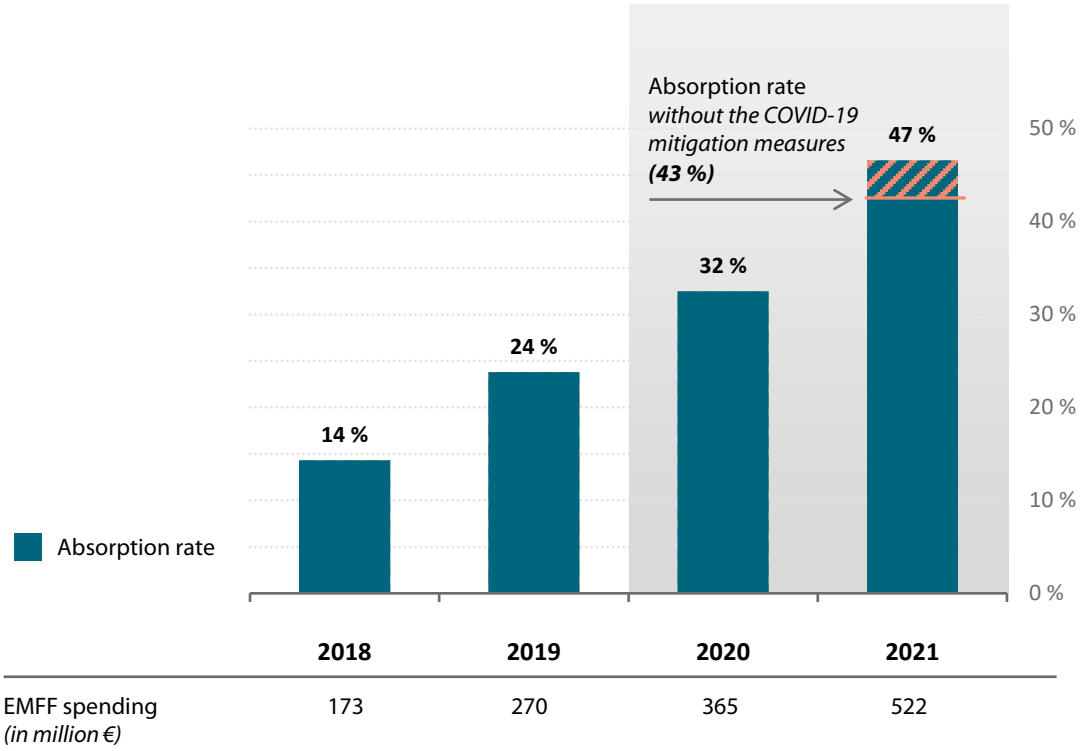
Source: ECA, with EU-28 data from the 2018, 2019, 2020 and 2021 EMFF implementation reports, and provisional data from the Commission for 2022.

50 According to the Commission, the fisheries and aquaculture sector has been hit particularly hard by the market disruption generated by a significant drop in demand ensuing from the COVID-19 outbreak. In April 2020, it proposed a set of measures to support EU fisheries and aquaculture in tackling the impact of the COVID-19 outbreak. The package, adopted by the European Parliament and the Council[22], increased the flexibility for member states to reallocate existing financial resources, including to new specific measures to compensate aquaculture farmers for the suspension of production and cover their additional costs, and to support producer organisations placing fishery and aquaculture products in storage.

51 With specific reference to aquaculture, member states made particular use of funding under Article 55 of the EMFF Regulation for public health measures: whereas up until December 2019 there were no operations under this article, member states committed €6.7 million under 315 operations in 2020 and €49 million under 1 964 operations in 2021. The absorption rate for UP2 reached 47 % in 2021 (see ***Figure 8***); without the COVID-19 mitigation measures, it would have been 43 %.

[22] Regulation (EU) 2020/560.

Figure 8 – Union priority 2 absorption rates (in %), 2018-2021



Source: ECA, with EU-28 data from the Commission's 2021 EMFF implementation report.

52 Absorption rates increased in 2020-2021, partly due to the exceptional measures linked to the COVID-19 outbreak. According to the 2021 EMFF implementation report the measures taken by the member states also included extending project implementation deadlines and modifying project selection criteria. Despite this temporary acceleration, the Commission acknowledges that member states may not be able to spend all available EMFF funding by 2023, which is the deadline set in the Common Provisions Regulation[23] for expenditure to be considered eligible.

Member states financed almost all eligible projects as selection criteria were undemanding

53 Member states include those aquaculture measures they consider appropriate in their operational programmes, which the Commission approves. Their choice of measures should be consistent with the needs identified in the operational programmes and other strategic documents. Member state authorities should target the EU funds available for aquaculture at projects that contribute the most to achieving the EU priorities.

[23] Article 65(2) of Regulation (EU) 1303/2013.

54 We reviewed six operational programmes for the 2014-2020 period, including each programme's analysis of the strengths, weaknesses, opportunities and threats in the aquaculture sector, and its financial plan. We found that these analyses identified the sector's key needs in the selected member states, in line with the operational needs identified in their plans for aquaculture, although these needs were not quantified in financial terms. Following this analysis, the member states put forward the types of measures to be implemented.

55 Based on our analysis of the calls published under UP2, the most popular measure, put forward by all member states covered by our audit, was "productive investments in aquaculture". These include, for example, investments in modernisation or the development of closed recirculation systems. Other popular measures included "aquaculture providing environmental services", which mainly relates to the conservation and improvement of the environment and biodiversity (Poland, Romania), "innovation" (Spain, Greece and France), "public health measures" (Greece) and "increasing the potential of aquaculture sites" (Italy).

56 Facing low absorption rates (see paragraphs ***49***-***52***), member states often proposed amendments to their initial financial plans, which the Commission approved, decreasing allocations to some measures (see examples in ***Box 5***) while increasing allocations to others; sometimes they did not proceed with measures they had initially planned. This was mainly the result of some measures not being successful due to lack of interest from the aquaculture sector. The stakeholders we met during the audit mentioned administrative burden, strict environmental rules, and the challenges faced by very small enterprises in innovating and sharing knowledge[24], as bottlenecks to the growth of the sector; these factors may also explain the lack of interest in certain measures.

[24] See also Jordi Guillen et al., Aquaculture subsidies in the European Union: Evolution, impact and future potential for growth, Marine Policy, Volume 104, June 2019.

Box 5

Examples of substantial changes to Spain's allocations for aquaculture measures

Changes to Spain's EMFF financial plan reduced available funding for certain measures under UP2. The biggest decrease in available funding was for productive investments relating to the efficient use of resources (reduced by 93 % from the amount initially planned, to €1.2 million), new aquaculture enterprises practising sustainable aquaculture (reduced by 92 % from the amount initially planned, to €1.0 million) and innovation measures (reduced by 52 % from the amount initially planned, to €18.6 million).

The efficient use of resources, the establishment of new enterprises and the adoption of innovative farming practices had been recognised by the EU strategic guidelines and the Spanish plan for aquaculture as important objectives for the sustainable growth of the sector.

57 We found that the six member states covered by our audit checked the eligibility criteria (including whether the projects fell within the scope of the priorities and specific objectives) but lacked strict selection criteria, which would help better target projects. Two of the six selected member states (Spain and Poland) did not apply any minimum overall qualifying score for the selection criteria when approving project applications.

58 In Greece, under the two calls we examined, applications had to go through two stages of selection: an initial eligibility check and a second step in which applications were assessed against a set of quality criteria. Only one of the 155 applications which passed the eligibility checks was rejected at the second stage. Most French regions applied minimum overall scores for two measures out of six, which accounted for the majority of aid applications under UP2. A total of seven applications were rejected for not reaching the minimum score, representing less than 0.5 % of all applications for those two measures.

59 Our analysis of the data for the other two member states (Italy and Romania) shows that the minimum thresholds were low, and that almost all otherwise eligible projects obtained the minimum score and were selected for funding. In Italy, for the 12 calls[25] we examined, three of the 351 applications had been excluded because they had not reached the minimum quality score. In Romania, our analysis focused on

[25] Nine in Emilia-Romagna and three at national level.

measure II.2 (“Productive investments in aquaculture”), covering more than half of spending under UP2: only one application out of 152 was rejected for not meeting the minimum threshold.

60 For the 2021-2027 period, the EMFAF is set up in a way that reduces the number of eligibility rules at EU level. It also gives member states greater flexibility in setting their own eligibility rules. It was too early for us to assess whether the calls for proposals to be launched for the new period would lead to EU funds being used more selectively.

EU aquaculture production is stagnating and there is no reliable data to assess whether the sector is developing more sustainably

61 Clear objectives, targets and a reliable monitoring system are key elements in order to establish whether there has been progress in a predefined area and whether this progress is satisfactory. Monitoring and evaluations should make it possible to assess the sustainable development of the aquaculture sector as a whole as well as the specific results of the EU’s fisheries funding programmes. We used the available data and indicators to assess the overall progress of the EU aquaculture sector (in environmental, economic and social terms), as well as the specific contribution of the EU funds to its sustainable development.

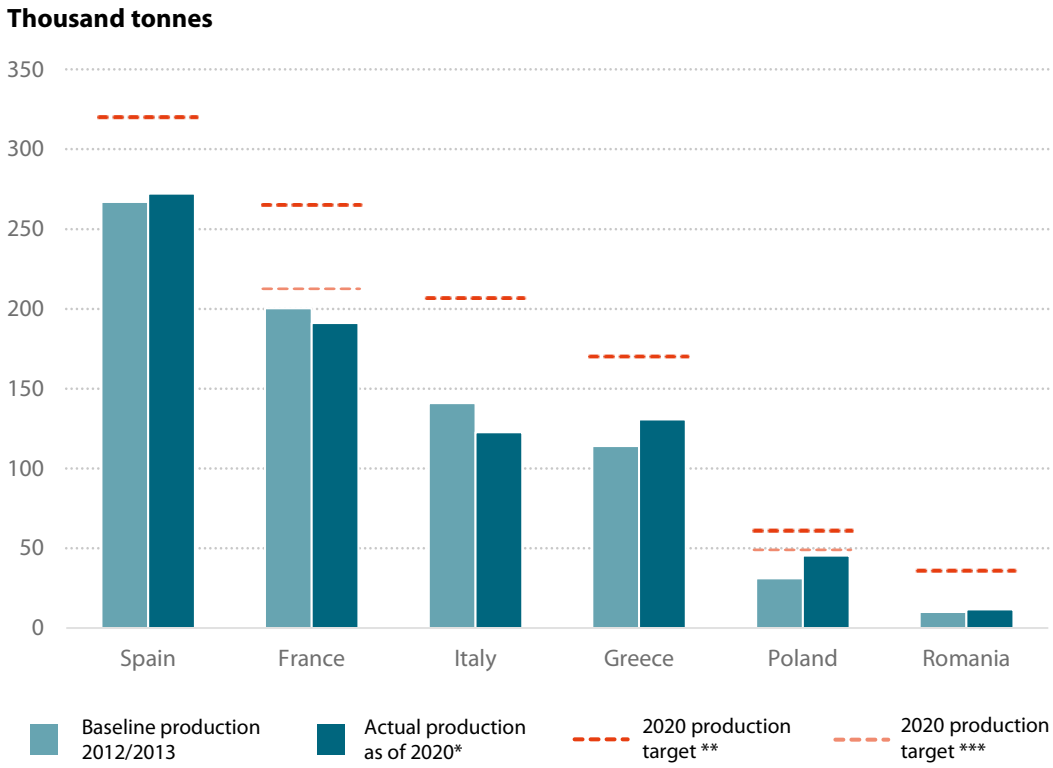
EU aquaculture production volumes experienced little growth between 2014 and 2020

62 The 2013 strategic guidelines encouraged member states to set objectives for aquaculture production growth in their plans for aquaculture, expressed in terms of both volume and value. All six selected member states indicated targets or forecasts for volume growth, and three of them also indicated target or forecasts for growth in the value of production (Spain, France and Italy).

63 In its 2021 strategic guidelines, the Commission did not explicitly recommend that the member states set aquaculture production growth targets in their plans for the 2021-2030 period. All selected member states except Italy set some targets for growth, although the way some of them are formulated makes it difficult to consolidate them to obtain an overall view of the EU’s ambition for the period. Spain, France and Poland also established growth objectives for certain species and/or types of production.

64 For the selected member states, ***Figure 9*** compares the 2020 targets/forecasts for aquaculture production set in their plans for aquaculture (except for Italy, which set its expected growth for 2025) with the 2012/2013 baseline, and with their actual 2020 production data as published by Eurostat. It shows that in two member states (France and Italy), aquaculture production in 2020 was lower than the 2012/2013 baseline production. The other member states covered by this audit made limited progress towards their 2020 targets.

Figure 9 – Member states' aquaculture production targets and actual achievements

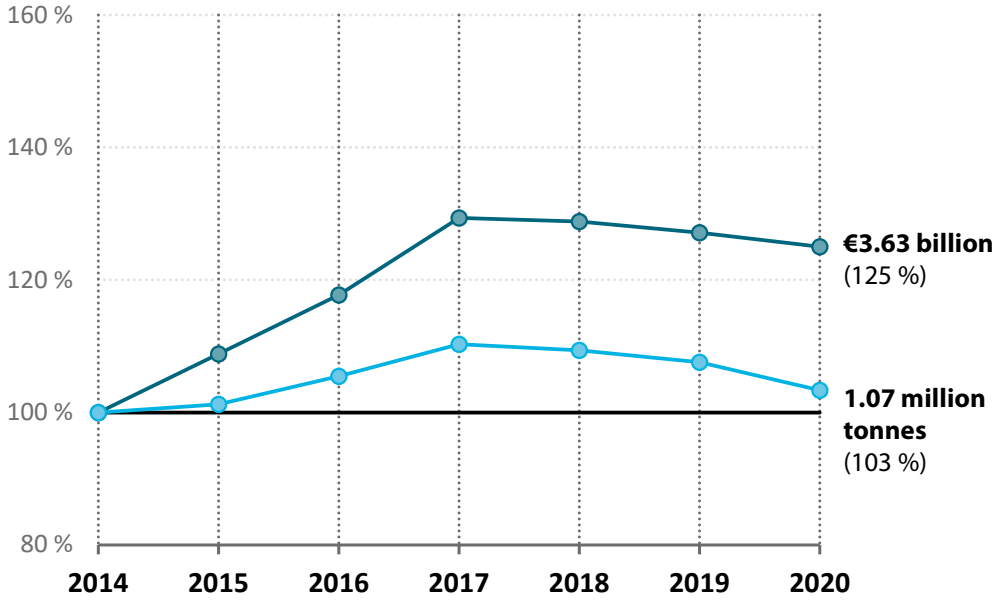


(*) for Romania estimated data.
(**) forecast year for Italy: 2025; for Spain we display the middle-ground forecast.
(***) Poland set the target within a range 49 500 – 61 000 tonnes.
France set the target within a range 213 000 – 265 000 tonnes.

Source: ECA, based on MNSPs and Eurostat data on production volumes.

65 For the 27 current EU member states combined, Eurostat data indicates that the value of aquaculture production increased by 25 % between 2014 and 2020. However, it also shows that the volume of EU aquaculture production remained relatively stable over the same period (see ***Figure 10***).

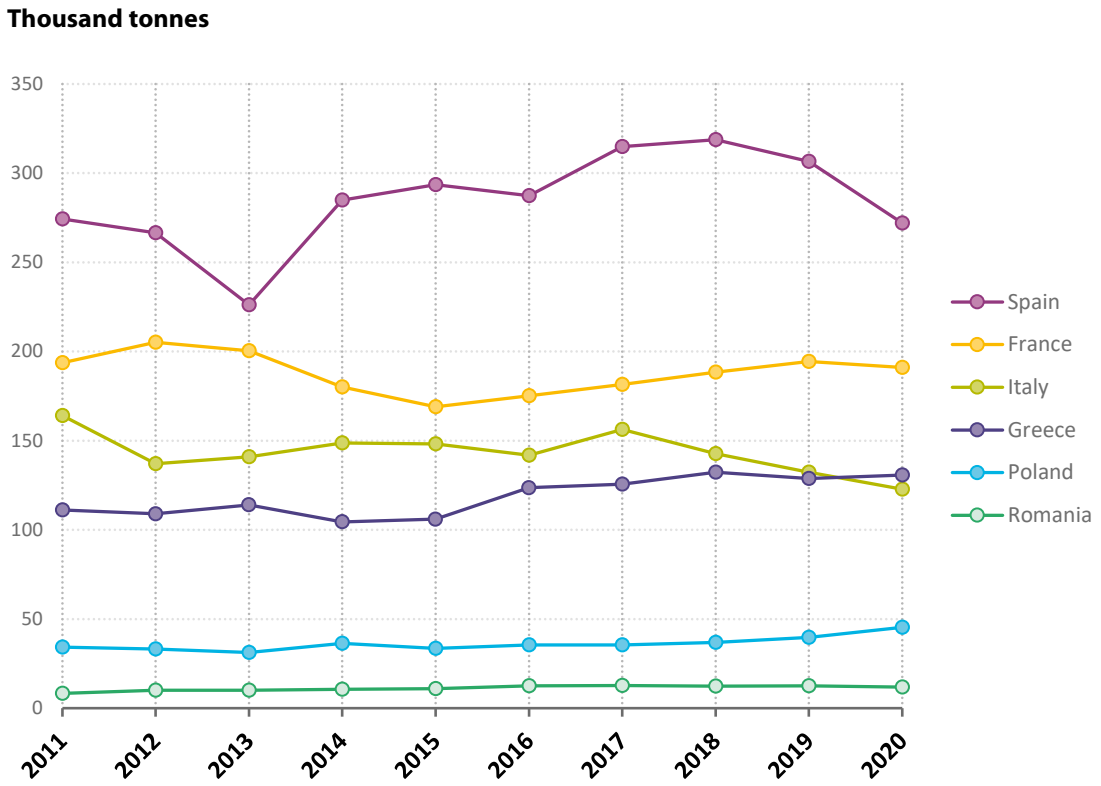
Figure 10 – Change in EU aquaculture production in volume and in value, 2014-2020



Source: ECA, based on Eurostat (fish_aq2a) and EUMOFA – "The EU fish market" for the EU-27.

66 According to Eurostat data (see ***Figure 11***), production was very variable for Spain (the largest aquaculture producer in the EU) and decreased in France and Italy (the second and third largest aquaculture producers respectively).

Figure 11 – Aquaculture production in the selected member states, in tonnes, 2011-2020



Source: ECA, based on Eurostat (fish_aq2a) and EUMOFA – "The EU fish market".

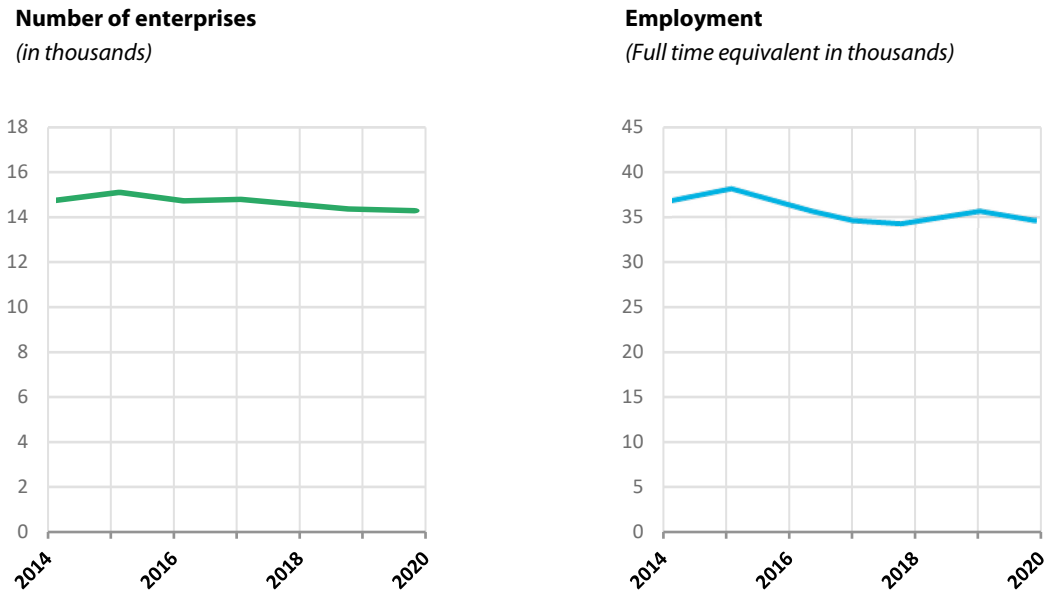
67 Additional socio-economic indicators are provided by the Scientific, Technical and Economic Committee for Fisheries (STECF), which produced data series up until 2020[26]. They show (see ***Figure 12***) that, for the 2014-2020 period:

— the number of enterprises engaged in aquaculture production fluctuated around 15 000, with a decreasing trend;

— the number of people employed in aquaculture (full-time equivalents) decreased from around 40 000 to around 35 000.

[26] Economic report on the EU aquaculture (STECF-22-17), 2023.

Figure 12 – STECF social indicators, 2014-2020



Source: ECA, based on EU-27 data from STECF.

68 The STECF also reported that in 2020 EU aquaculture enterprises from 19 EU countries had total EBIT (earnings before interest and taxes, also known as "operating profit") of €518 million. Not all member states provide data for this indicator, and those that do are not the same every year. EU-level data on profitability is therefore neither complete nor comparable over the 2014-2020 period. For instance, 2020 EBIT data is not available for Spain and Poland. In the other member states selected for this audit, between 2014 and 2020 EBIT increased the most in France (128 %), followed by Italy (96 %) and Greece (24 %), while it turned to negative (i.e. an overall operating loss) in Romania.

The Commission identified knowledge gaps to be filled about the environmental sustainability of EU aquaculture

69 Improving the environmental sustainability of EU aquaculture is one of the main objectives of EU aquaculture policy, and of EU funds in particular (see ***Box 1*** above). The six selected member states also included a number of environmental objectives and actions in their plans for aquaculture.

70 In addition, the CFP Regulation provides that these plans must aim to develop indicators for environmental, economic and social sustainability[27]. Our analysis of the

[27] Article 34(4)(c) of Regulation (EU) 1380/2013.

2014-2020 plans for the six selected member states showed that, while they all covered this requirement to some degree, the extent to which they addressed environmental indicators varied considerably. The Romanian plan was the only one to include a specific objective on quantifying the effects of aquaculture on the environment.

71 Unlike for economic and social sustainability (see paragraphs ***64-68***), we did not identify a single set of indicators which would allow us to assess whether EU aquaculture developed in a more environmentally sustainable manner over the 2014-2020 period.

72 In 2012, the Commission's Joint Research Centre (JRC) carried out a study on "Indicators for Sustainable Aquaculture in the European Union"[28], including environmental indicators. It assessed the sustainability of aquaculture both at EU level and in the member states, using a series of indicators which notably included two environmental indicators relating to feed demand (dependence on fishmeal and fish oil) and two relating to effluents (nitrogen and phosphorus). It found large differences in both respects between different species groups and production systems. According to the study, very little official statistical data is available to assess the performance of EU aquaculture, particularly in environmental terms.

73 In November 2020, the Commission launched the EU bioeconomy monitoring system. The system is being implemented as part of the EU Bioeconomy Strategy, and aims to address the need for a tool measuring the progress of the EU bioeconomy – including fisheries and aquaculture – with respect to the environmental, social and economic dimensions of sustainability. The Commission is working towards developing indicators that will make it possible to measure pressures from aquaculture, such as nutrient discharge from marine aquaculture, and the number of invasive alien species introduced each year.

74 The JRC regularly publishes technical reports on the EU bioeconomy monitoring system. A report from January 2023 includes the updated list of indicators which are published or being developed[29]. It shows that data is lacking for a number of indicators – including the one on nutrient discharge. The indicators on the list currently do not

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[28] Hofherr J. et al., "European Aquaculture Performance Indicators - Indicators for Sustainable Aquaculture in the European Union", 2012.

[29] Annex 3 in Kilsedar, C. et al., "EU Bioeconomy Monitoring System dashboards: extended with trade-related indicators", 2023.

always differentiate between fisheries and aquaculture, and the list does not include an indicator on nutrient discharge from freshwater aquaculture.

75 In another report from January 2023[30], the JRC proposes a set of indicators for policymakers relating to climate change adaptation in aquaculture, measuring for instance the trophic level of farmed organisms, which is a proxy for their dependence on raw materials such as fishmeal and fish oil, or the feed conversion rate, which makes it possible to assess the efficiency of aquaculture in terms of feed inputs.

76 The STECF also identified some critical aspects of sustainability for aquaculture products, and related indicators, in two reports published in 2021[31] and 2023[32]. The Commission informed us that it is working on a guidance document on the environmental performance of aquaculture (see paragraph ***26***), which will identify environmental performance indicators and take these STECF reports into account.

The EMFF's performance cannot be assessed due to inadequate monitoring data

77 The specific performance framework for EMFF-funded actions is based on indicators and targets contained in the member states' operational programmes. Before approving operational programmes, the Commission is meant to check the member states' choice of indicators and the plausibility of their targets. The indicators include output indicators (e.g. number of productive investments in aquaculture, innovation, advisory services, etc.) and result indicators (e.g. change in volume of aquaculture production, change in net profit).

78 For the 2021-2027 period, the EMFAF Regulation defines one output indicator (number of operations) and a set of result indicators, of which one refers exclusively to aquaculture (aquaculture production maintained). Under each specific objective – including specific objective 2.1 on aquaculture support – member states may select the result indicators they consider most appropriate to reflect their strategy and the

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[30] Joint Research Centre et al., "EU bioeconomy monitoring system indicator update", 2023.

[31] Criteria and indicators to incorporate sustainability aspects for seafood products in the marketing standards under the Common Market Organisation (STECF-20-05), 2021.

[32] Marketing standards: review of proposed sustainability criteria / indicators for aquaculture (STECF-22-13), 2023.

outcome expected. They can select as many result indicators as they consider necessary to reflect the most important effects of funding.

79 The Commission monitors the implementation of the operational programmes using data provided by member states on their selected indicators. The monitoring system is designed in such a way that performance is reported at the level of each operation. While this is a positive feature of the system, the quality and reliability of the indicators largely depend on how member states collect and verify data on the operations' performance.

80 For the 2014-2020 period, the member states provide such data, firstly, through reports pursuant to Article 97(1)(a) of Regulation (EU) 508/2014 (known as "Infosys" reports). Secondly, they also provide aggregated data for the same indicators in their annual implementation reports (AIRs). The Commission, in turn, disseminates information on the performance of operational programmes via its open data platform, which is intended to ensure continuous public monitoring based on aggregated data. We found significant inconsistencies between these three different sets of figures for the same indicators (see ***Box 6***).

Box 6

Examples of inconsistencies between different reporting systems

We found discrepancies between different reporting systems in the data reported by the Commission on the EMFF results achieved as at the end of 2021 for various result indicators, for example:

Results achieved until 2021	**Infosys data**	**AIRs data**	**Open data platform**
Change in volume of aquaculture production (tonnes)	223 316	295 952	434 531
Aquaculture farms providing environmental services (number of farms)	335	1 149	1 326

Source: ECA, based on EU-27 data from Infosys, AIRs and open data platform (consulted on 30.05.2023).

81 Both the targets and the results reported for "change in volume of aquaculture production" are clearly overstated. Even the lowest of the three results reported in ***Box 6*** (223 316 tonnes) would correspond to growth of around 20 % in the EU's total aquaculture production, whereas in reality there was very little growth over the 2014-

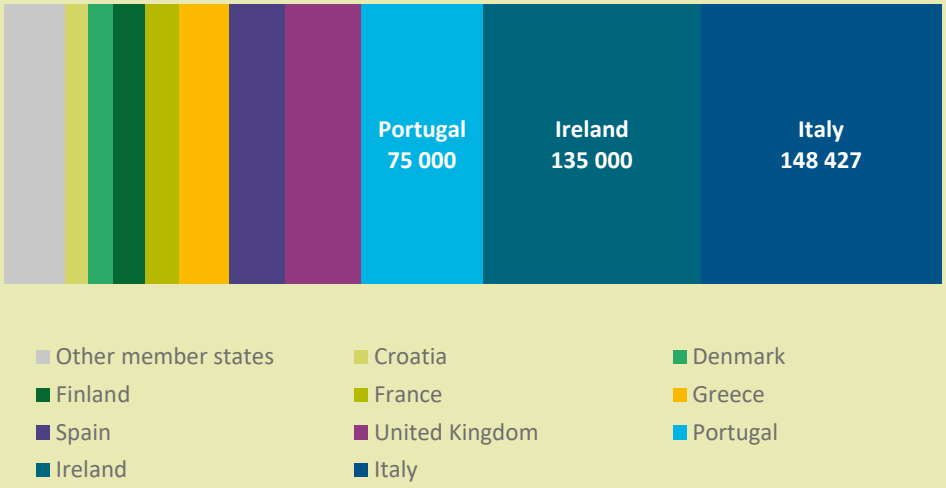
2020 period (see paragraph ***66***). This calls into question the reliability of source figures provided by the member states to the Commission. The consolidated EU target, while consistent across the three reporting systems we analysed (around 532 000 tonnes without the UK), represents around half of the EU's entire production. The three highest values (for Italy, Ireland and Portugal) have been triple-counted by mistake, and published without being corrected (see ***Box 7***).

Box 7

Errors in member states' targets for the EMFF's contribution to growth in aquaculture production

Volume of production – aquaculture
Change in volume of aquaculture production
Planned: 579 332 tonnes (532 418 tonnes without the UK)
Implemented: 444 764 tonnes (434 531 tonnes without the UK)

Overview of programme targets (in tonnes)



Source: ECA, based on the information published on the open data platform, consulted on 30.5.2023.

82 The Commission also acknowledged weaknesses in the reporting systems. In its 2021 EMFF implementation report, it indicated: "It can be assumed that at least some of the reported Result Indicators values are implausible, in cases where the ex-post value exceeds the ex-ante value by more than 200 %. Most of these errors are considered to be of the formal type, such as using the national currency where EUR is required, reporting in EUR where 'thousand EUR' is required, or reporting in kg where tonnes are required. A part of these differences may also relate to imprudent planning, unforeseen events during the implementation, or small numbers". As an example, the report indicates that, under specific objective 2, the achievements reported for the

indicators “change in value of aquaculture production” and “change in net profit” are most likely erroneous.

83 To improve data quality, the Commission has issued guidance for member states on the topic and developed a data validation procedure that informs them of formal errors and plausibility issues. However, in view of the issues affecting the quality of the data fed into the monitoring system, we are unable to assess the current performance of EMFF-funded actions or whether their objectives have been achieved. This deficiency adversely affects the possibility of learning lessons in order to improve the performance of future programmes.

Conclusions and recommendations

84 We examined whether the Commission and the member states have promoted the sustainable development of EU aquaculture effectively. We conclude that while the EU's strategic framework for aquaculture has improved in recent years, EU aquaculture has seen little growth and there are no reliable indicators to track the sector's sustainability and the contribution of the increased EU funding to the development of EU aquaculture.

85 We found that the EU strategic documents promoting the sustainable development of aquaculture had improved (paragraphs ***19***-***25***). At member state level, multiannual strategic plans for aquaculture were generally aligned with the Commission's guidelines, but some key strategies for the environment did not take aquaculture into account properly (paragraphs ***27***-***36***). Moreover, member states' spatial planning and licensing procedures still hampered the growth of the aquaculture sector (paragraphs ***37***-***42***). In 2022, the Commission launched the Aquaculture Assistance Mechanism to support the member states, the aquaculture industry and other relevant stakeholders in implementing the EU strategic guidelines (paragraph ***26***).

Recommendation 1 – Support member states in addressing the obstacles to a sustainable development of EU aquaculture

The Commission should, with the support of the Aquaculture Assistance Mechanism, promote the exchange of best practice on how to address bottlenecks affecting the sustainable development of aquaculture in key environmental strategies, licensing procedures and spatial planning.

Target implementation date: 2025

86 The amount allocated exclusively to aquaculture for the 2014-2020 period was more than three times the amount spent in 2007-2013, without the Commission and member states properly demonstrating the need for such a large increase. This amount may have been more than necessary, since member states' absorption rates for aquaculture funding were low compared to other priorities, despite some additional absorption resulting from COVID-19 mitigation measures (paragraphs ***44***-***52***). In response to these low absorption rates, member states often proposed amendments to their initial financial plans – which the Commission approved – reallocating funding to those measures attracting greater interest from the

aquaculture sector, and financed almost all eligible projects, irrespective of their contribution to the objectives of EU support (paragraphs ***53***-***60***). The allocation of funding was thus mainly demand-driven, with little strategic focus on using funding as a tool to support EU aquaculture policy and the member states' plans for aquaculture.

Recommendation 2 – Improve targeting of EU funds

The Commission should:

(a) when reviewing and approving amendments to the member states' EMFAF operational programmes, ensure that member states demonstrate better the links between the funds allocated, the objectives of the measures, the targets set for performance indicators and the EU's aim of achieving sustainable growth;

(b) as part of the EMFAF mid-term evaluation, assess whether member states have used selective criteria when choosing projects to be funded and, based on this assessment, share best practice on how to make better use of the EMFAF as a tool to achieve the objectives of EU aquaculture policy and of the multiannual national strategic plans for aquaculture.

Target implementation date: 2025

87 In recent years, the member states have made limited progress on their aquaculture production targets. Production volumes have stagnated and the number of people employed in aquaculture has decreased. At the same time, the sector has seen an increase in the value of production (paragraphs ***62***-***68***). There are currently no indicators available to monitor the environmental sustainability of EU aquaculture. The Commission is working to develop suitable indicators through its EU bioeconomy monitoring system, but data is currently missing for a number of these indicators. The Commission is also working on a guidance document which will identify environmental performance indicators for aquaculture (paragraphs ***69***-***76***). The data currently reported in the EMFF monitoring system is not adequate to assess the fund's contribution to the sector's environmental and social sustainability or its competitiveness (paragraphs ***77***-***83***).

Recommendation 3 – Enhance the monitoring of EU funding's performance and of environmental sustainability

The Commission should:

(a) to ensure better policy evaluation and design, work with the member states to improve the relevance and reliability of the systems used to monitor EU aquaculture funding, and ensure consistency between them;

(b) ensure that sustainability indicators referring specifically to aquaculture are available in time for the preparation of proposals for the post-2027 funding programme, e.g. as part of the EU bioeconomy monitoring system.

Target implementation date: (a) 2025 (b) 2026

This report was adopted by Chamber I, headed by Ms Joëlle Elvinger, Member of the Court of Auditors, in Luxembourg at its meeting of 27 September 2023.

For the Court of Auditors

Tony Murphy
President

Annex

Actions by the Commission included in the 2013 strategic guidelines

Areas	Actions by the Commission
Simplification of administrative procedures	Work to identify best practices and margins for improvement. Prepare guidance documents addressing the requirements of the Water Framework Directive and the Marine Strategic Framework Directive in relation to aquaculture.
Securing sustainable development and growth of aquaculture through coordinated spatial planning	Monitor the implementation of coordinated maritime planning. Disseminate studies and experiences to help member states in their planning. Organise a best practice exchange seminar in summer 2014.
Enhancing the competitiveness of EU aquaculture	Coordinate and support research and innovation for aquaculture through all the relevant EU programmes and funds. Promote the transfer of knowledge, best practices and innovation, including EU research project findings. Deliver a user-friendly EU market observatory to provide market intelligence.
Promoting a level playing field for EU operators by exploiting their competitive advantages	Ensure that labelling rules, in particular those on freshness, provenance and commercial name, are fully implemented. Improve market transparency and disseminate market information on trends at local, EU and international level. By the end of 2013, launch a communication campaign on the strengths of EU aquaculture.

Abbreviations

AIR: Annual implementation report

CFP: Common fisheries policy

EBIT: Earnings before interest and taxes

EFF: European Fisheries Fund

EMFAF: European Maritime, Fisheries and Aquaculture Fund

EMFF: European Maritime and Fisheries Fund

EUMOFA: European Market Observatory for Fisheries and Aquaculture Products

FAO: Food and Agriculture Organization of the United Nations

FIFG: Financial Instrument for Fisheries Guidance

GIS: Geographic information system

JRC: Joint Research Centre

MNSP: Multiannual national strategic plan

RBMP: River basin management plan

STECF: Scientific, Technical and Economic Committee for Fisheries

UP2: Union priority 2

Glossary

Absorption: The extent, often expressed as a percentage, to which EU funds allocated to member states have been spent on eligible projects.

Carbon footprint: A measure of the impact activities have on the environment, based on the greenhouse gases they generate.

Common fisheries policy: The EU's framework for managing fish and fishing, designed to ensure sustainable fish stocks and a stable income for the fishing community.

European Green Deal: EU growth strategy adopted in 2019, aiming to make the EU climate-neutral by 2050.

Good environmental status: High standard of health, biodiversity, productivity and long-term sustainability in seas and oceans.

Horizon 2020: The EU's research and innovation funding programme for the 2014-2020 period.

Horizon Europe: The EU's research and innovation funding programme for the 2021-2027 period.

Impact assessment: An analysis of the likely (ex ante) or actual (ex post) effects of a policy initiative or other course of action.

Interreg: EU programme that supports cooperation on cross-border projects between regions and countries in support of regional development.

Invasive alien species: Animal or plant introduced accidentally or deliberately into a natural environment where it is not normally found, with serious negative consequences for its new environment.

Joint Research Centre (JRC): Commission directorate-general that provides scientific knowledge and advice in support of EU policies.

LIFE: Financial instrument supporting implementation of the EU's environmental and climate policy through co-financing of projects in member states.

Monitoring: Systematically observing and checking progress, partly by means of indicators, towards the achievement of an objective.

Marine strategy: National strategy drawn up by each EU member state to achieve or maintain the good environmental status of seas and oceans.

Maritime spatial planning: Analysis, organisation and designation of sea and ocean areas to ensure that competing human activities are efficient, safe and sustainable.

Multi-annual national strategic plan: Document setting out a member state's objectives for the promotion of sustainable aquaculture over several years, and the measures and timetables necessary to achieve them.

Natura 2000: Network of conservation areas for rare and threatened species, and some rare natural habitat types, protected under EU law.

Operational programme: Framework for implementing EU-funded projects in a set period, reflecting the priorities and objectives laid down in partnership agreements between the Commission and individual member states.

Prioritised action framework: Multiannual planning tool required by the Habitats Directive, providing an overview of measures to implement the Natura 2000 network, and the amount and source of funding needed.

Programming period: Period within which an EU spending programme is planned and implemented.

Result indicator: A measurable variable providing information for assessing the immediate effects of supported projects on the targeted population.

River basin management plan: Document covering the management of a designated river basin in the EU, setting out the actions planned to meet the objectives of the Water Framework Directive.

Scientific, Technical and Economic Committee for Fisheries: Body of experts appointed by the Commission to assist with implementation of the common fisheries policy.

Replies of the Commission

https://www.eca.europa.eu/en/publications/sr-2023-25

Timeline

https://www.eca.europa.eu/en/publications/sr-2023-25

Audit team

The ECA's special reports set out the results of its audits of EU policies and programmes, or of management-related topics from specific budgetary areas. The ECA selects and designs these audit tasks to be of maximum impact by considering the risks to performance or compliance, the level of income or spending involved, forthcoming developments and political and public interest.

This performance audit was carried out by Audit Chamber I Sustainable use of natural resources, headed by ECA Member Joëlle Elvinger. The audit was led by ECA Member Nikolaos Milionis, supported by Kristian Sniter, Head of Private Office and Matteo Tartaggia, Private Office Attaché; Emmanuel Rauch, Principal Manager; Maria Eulàlia Reverté i Casas, followed by Matteo Tartaggia and Anna Zalega, Heads of Task; Małgorzata Frydel, Greta Kapustaitė and Asimina Petri, Auditors. Marika Meisenzahl provided graphical support. Richard Moore and Michael Pyper provided linguistic support.

From left to right: Maria Eulàlia Reverté i Casas, Kristian Sniter, Anna Zalega, Emmanuel Rauch, Nikolaos Milionis, Matteo Tartaggia, Greta Kapustaitė, Małgorzata Frydel, Asimina Petri.

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Aquaculture is an important element of the EU blue economy and, if carried out sustainably, it can represent a source of protein with a lower carbon footprint. We found that the EU's strategic framework for aquaculture has improved in recent years. However, some key national strategies for the environment do not take aquaculture into account properly, and member states' spatial planning and licensing procedures still hamper aquaculture growth. The large increase in EU funding available for aquaculture over the 2014-2020 period was followed by relatively low absorption and undemanding project selection criteria. EU aquaculture has seen little growth over the period, and there are no reliable indicators to track the sector's sustainability or the contribution of the increased EU funding.

ECA special report pursuant to Article 287(4), second subparagraph, TFEU.

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