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EUROPEAN INLAND FISHERIES AND AQUACULTURE ADVISORY COMMISSION

Thirty-Second Session

Pula, Croatia, 9 - 11 October 2024

STATE OF INLAND FISHERIES AND AQUACULTURE IN EUROPE, AND PROGRESS IN THE IMPLEMENTATION OF THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES AND EIFAAC DECISIONS

Executive Summary

This document provides summary overviews of:

1. The status and trends in inland fisheries in Europe,
2. The potential for aquaculture growth in Europe,
3. The relevant findings of the Code of Conduct for Responsible Fisheries Questionnaire of 2024 concerning Europe, and
4. The findings of the 2024 Survey on the Implementation of EIFAAC Resolutions and Recommendations.

This document should be read in conjunction with:

[EIFAAC/2024/Inf.14](#) - The status and trends of inland fisheries in Europe

[EIFAAC/2024/Inf.15](#) - WAPI factsheet on the aquaculture growth potential in Europe

[EIFAAC/2024/Inf.16](#) - Findings of relevance for EIFAAC in the CCRF Questionnaire of 2024 concerning Europe

[EIFAAC/2024/Inf.17](#) - Findings of the 2024 Survey on the Implementation of EIFAAC Resolutions and Recommendations

Suggested action by the Commission:

The Commission is invited to review the documentation shared and discuss the findings and recommendations.

Particularly, the Commission is requested to:

Inland fisheries

- a. Welcome the FAO Review of the State of the World Fishery Resources: Inland fisheries (C942/Revision 4) and the contributions made by 18 EIFAAC Members to the European inland fisheries overview.

- b. Acknowledge the need for data collection, monitoring and information systems and increasing capacity to better identify the status of inland fisheries and drivers of change, and to better inform inland fisheries management and conservation.
- c. Provide advice on measures that can be taken to increase inland fisheries production, and on management approaches that support inland fisheries' contribution to aquatic foods supply.
- d. Provide advice on the role of EIFAAC in integrated water resources management (IWRM), promoting opportunities for inland capture fisheries in IWRM and developing collaboration with Basin Management Organizations towards sustainable inland capture fisheries in the context of food security and nutrition.

Aquaculture growth potential

- e. Welcome the WAPI factsheet on the aquaculture growth potential in the EIFAAC area, which provides an overview of fisheries and aquaculture production, trade, and consumption, and the sectoral contribution to nutrition and food security.
- f. Recognize that the freshwater aquaculture production in the EIFAAC area has been stagnating over the last decades, while aquaculture production of marine and diadromous fishes increased in the EIFAAC area, and worldwide freshwater aquaculture production increased with 5 percent annually.
- g. Acknowledge that per capita fish and seafood consumption in the EIFAAC area reduced with 1.2 kg since 2007, to 20.3 kg per capita per year in 2019, and encourage EIFAAC Members to promote consumption of freshwater capture fisheries and aquaculture products in their domestic markets.
- h. Provide advice on the role of EIFAAC in support of aquaculture development, to remove barriers and facilitate a Blue Transformation of aquatic food systems for future food security, nutrition and resilient livelihoods.

CCRF Questionnaire of 2024

- i. Note the responses by EIFAAC Members to the 2024 Questionnaire for Monitoring the Implementation of the Code of Conduct for Responsible Fisheries and related instruments.
- j. Reflect on the usefulness of the Questionnaire for EIFAAC purposes.

2024 survey on the Implementation of EIFAAC Resolutions and Recommendations

- k. Welcome the findings of the 2024 Survey on the Implementation of EIFAAC Resolutions and Recommendations, which demonstrated that the various EIFAAC 31 decisions are relevant to highly relevant to a large majority of the membership.
- l. Provide advice on utilization of the survey methodology as biennial monitoring instrument of the implementation of EIFAAC Resolutions and Recommendations.

THE STATUS AND TRENDS OF INLAND FISHERIES IN EUROPE

1. The FAO Review of the State of the World Fishery Resources: Inland fisheries (C942/Revision 4) was conducted in 2023 and highlighted the contributions of inland capture fisheries to global fish production.
2. Inland capture fisheries contribute over 12 percent of the world's fish production (11.4 million tonnes in 2021) while using less than one percent of aquatic habitat. Inland fisheries are particularly important for certain countries, regions and populations. Seventeen countries produce 79 percent of inland fish catch and more than 20 percent of inland capture fisheries production originates from Low income and food deficit countries (LIFDC). Fish retained from recreational fisheries can also make important contributions to food security and nutrition that are not always recognised. Inland waters are also home to around 40 percent of all fish species.
3. Total production from inland capture fisheries in Europe for 2021 was estimated to be 133 122 tonnes, representing 1.17 percent of total global inland fish production. Countries in Europe reporting inland fisheries may be grouped into sub-regional groups reflecting common climatic

characteristics or shared water resources (for example, countries in the same basin). For Europe, these sub-regional groups and their production characteristics are as follows:

European Subregion	Countries and territories	Inland capture fisheries catch (tonnes in 2021)	% global inland capture fisheries catch	Per capita inland fish production (kg/cap/year)
Eastern	Belarus; Bulgaria; Czechia; Hungary; Republic of Moldova; Montenegro; Poland; Romania; Serbia; Slovakia; Slovenia; Ukraine	59 223	0.52	0.38
Northern	Denmark; Estonia; Finland; Iceland; Latvia; Lithuania; Norway; Sweden	36 214	0.32	1.08
Western	Andorra; Austria; Belgium; Channel Islands; Faroe Islands; France; Germany; Ireland; Liechtenstein; Luxembourg; Netherlands (Kingdom of the); Switzerland; United Kingdom of Great Britain and Northern Ireland	22 183	0.20	0.08
Southern	Albania; Bosnia and Herzegovina; Croatia; Cyprus; Greece; Italy; North Macedonia; Malta; Portugal; Spain	15 503	0.14	0.11
TOTAL		133 122	1.17	0.41

4. Across the European sub-regions there are a range of fisheries, both commercial and recreational, targeting a range of species in different aquatic environments with different gears. While production overall and per capita is generally low, there are exceptions. Estonia and Finland report relatively high per capita production. Catches generally remain stable, although there are some declines in some migratory species, including European eel, salmon and sturgeon. Recreational fisheries are an important element of inland fisheries across Europe and recreational catches in many European countries (Finland, Sweden, Germany, France, Poland, Hungary, Czechia, Serbia, Slovakia, Slovenia) were higher than catches from commercial fishing. While catch and release is common, fish can also be retained for consumption, a practice more prevalent in Northern and Eastern Europe.
5. Fish trade can play an important role in the accessibility of inland fish to consumers and there is evidence of specialized marketing techniques, most notably around ecolabels and local branding, for example, in the Lake Hjälmaren, Lake Mälaren and Lake Vänern pikeperch fishery.
6. Management of inland fisheries involves a variety of regulations, including gear restrictions, allowable catches, licensing as well as restoration and enhancement measures, including 'conservation aquaculture' and stocking (eel, trout, salmon and the reintroduction of burbot, *Lota lota*), and measures to address piscivorous (e.g. cormorants, seals and mink) and invasive (e.g. signal crayfish) species. Measures have also been introduced related to fish welfare. To support fisheries and wider habitat management there has been an increase in citizen science initiatives that contribute to monitoring and assessment.
7. Given fish stocks are affected not only by fishing, efforts have been made to coordinate activities and improve water quality and maintain and restore habitats. Examples include the coherence and responsible practices in aquaculture and managing water through a variety of measures including reforestation and riparian habitat management and restoring connectivity, for example

through barrier removal and mitigation using fish passes. Although reported catches from inland fisheries are relatively low, they can play an important role at the local level as sources of food, income and employment.

8. Inland capture fisheries are influenced by many factors that originate outside the sector. Examples include climate change, hydropower production, changes in land use and urbanisation. Decisions related to these factors lie outside the sector and can be made at different scales. Used at basin or sub-basin level, integrated assessments (with basin management organizations) can help to identify priority areas, critical threat factors and measures to be included in basin management plans and inform integrated water resources management (IWRM). Improving decisions across sectors also highlights the potential for fish and fisheries to contribute to monitoring and detecting changes in aquatic environments that can contribute to improved planning and policy.
9. In the preparation of the FAO Review of the State of the World Fishery Resources: Inland fisheries (C942 revision 4) many valuable contributions were received from EIFAAC members, including: Enton Spaho (Albania); Christian Bauer (Austria); Vildana Tahirović (Bosnia and Herzegovina); Constantinos Moustakas (Cyprus); Jakub Mořický (Czechia); Josip Suić (Croatia); Lene Jensen Scheel Bech, Fie Lind Holm and Søren Berg (Denmark); Ketter Kärp (Estonia); Petri Heinimaa (Finland); Klaus Wysujack and Reinhold Hanel (Germany); Horváth Ákos (Hungary); Michael Millane, Fiona Kelly, Kealan O'Higgins and Ciara O'Leary (Ireland); Ruta Medne (Latvia), Robbert Jan Schaap (Netherlands); Igor Wawrzyniak (Poland); Savin Cristian (Romania); Angela Konovalenko (Republic of Moldova); Dušan Ognjanović (Serbia); and Malin Setzer and Sofia Brockmark (Sweden).
10. The information provided by EIFAAC Members to C942 (revision 4) can also be found in the annex of [EIFAAC/2024/Inf.14](#).

AQUACULTURE GROWTH POTENTIAL WITHIN THE EUROPEAN INLAND FISHERIES AND AQUACULTURE ADVISORY COMMISSION (EIFAAC) AREA

11. On request of EIFAAC 31, the FAO's Fisheries and Aquaculture Division (NFI) prepared a World Aquaculture Performance Indicators (WAPI) factsheet with data and information to facilitate the assessment of aquaculture growth potential within the area of EIFAAC. The data and statistics presented in the factsheet (EIFAAC/2024/Inf.15) regarding EIFAAC represent aggregated or averaged figures from its 37 member states. Comparisons with aquaculture status at world level and in the EU27 are included.

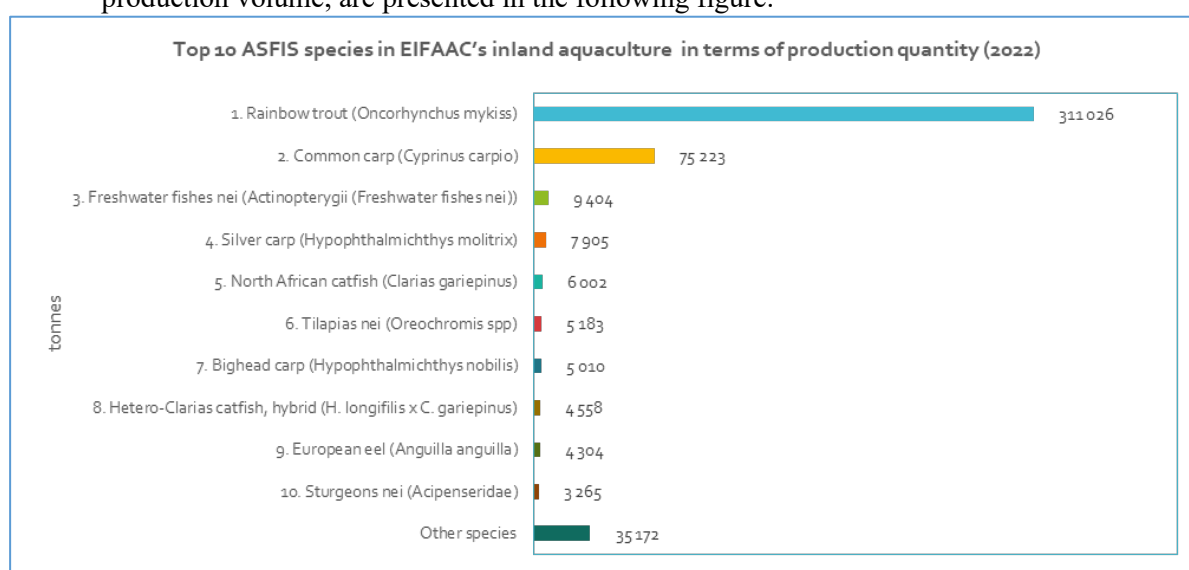
Status and trends

12. Aquaculture production in the EIFAAC area increased from 2 million tonnes in 2000 to 3.6 million tonnes in 2022. The 2.7 percent annual growth was higher than EU27 and European averages, yet lower than the world average. Between 2000 and 2022, aquaculture production increased in 27 EIFAAC member countries and declined in 10 member countries.
13. While less than 2 percent of EIFAAC's capture fisheries production came from inland waters, inland aquaculture contributed 13.1 percent of its 3.6 million tonnes of aquaculture production in 2022. Within this 13.1 percent of inland aquaculture production 9.3 percent involved diadromous fishes and only 3.6 percent were freshwater species. More than 80 percent of the total aquaculture production in the EIFAAC area came from finfish (63.8 percent from diadromous fishes, 16.4 percent from marine fishes, and 3.6 percent from freshwater fishes).
14. In 2022, 36 countries contributed to EIFAAC's 3.6 million tonnes (USD 20.2 billion) of aquaculture production, which comprised 125 species. While accounting for only 2.7 percent of global aquaculture production, the EIFAAC membership is a main producer of farmed salmon/trouts/smelts (53 percent of global production), marine perch-like fishes (31 percent),

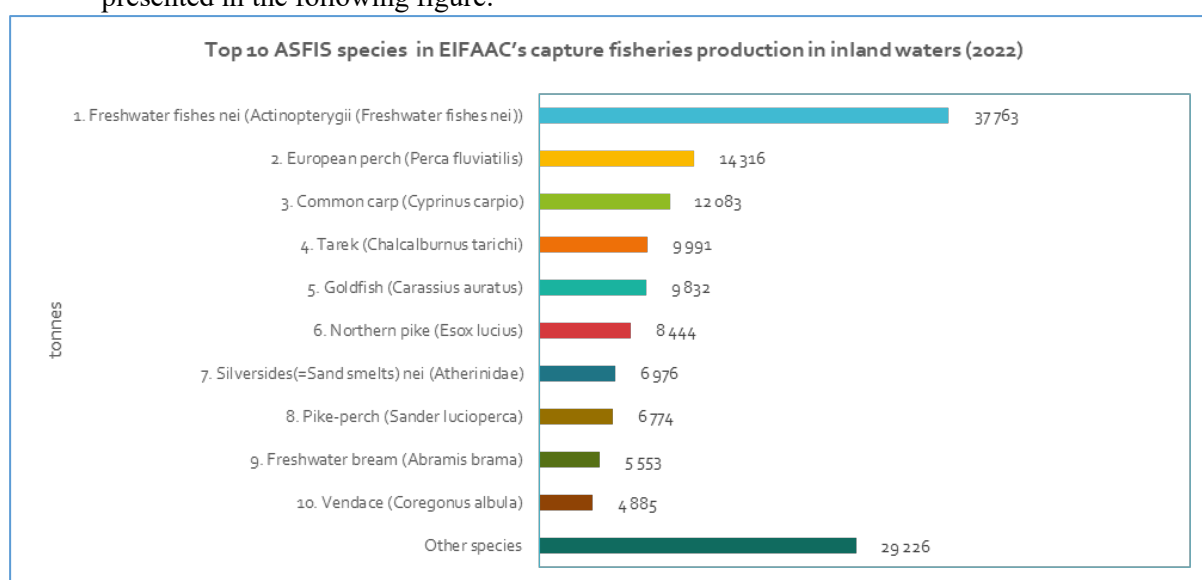
tunas/bonitos/billfishes (28.15 percent), and mussels (22.4 percent). Salmon/trout/smelts is the most popular species group farmed.

Supply-side perspective

15. In 2022, the EIFAAC area accounted for 2.7 percent of global aquaculture production. The contribution was lower than its shares in world land area (4.4 percent) and population (8.1 percent). EIFAAC's share in world inland aquaculture production (0.8 percent) was lower than its share in world's renewable water resources (5.9 percent) as well as its share in the surface area of inland waterbodies (4.8 percent). Its share in world's marine and coastal aquaculture production (4.3 percent) was lower than its 13.8 percent share in world's coastline length.
16. The main aquaculture species items in inland waters of the EIFAAC area (2022), ranked by production volume, are presented in the following figure.



17. The species composition of EIFAAC's capture fisheries production in inland waters (2022) is presented in the following figure.



18. Total fisheries production by EIFAAC member countries decreased from 14.7 million tonnes in 1995 to 12.2 million tonnes in 2022. The decline reflects the situation of capture fisheries, while EIFAAC's aquaculture production increased during the period. Aquaculture production in EIFAAC increased from 1.5 million tonnes in 1995 to 3.6 million tonnes in 2022, while its

capture fisheries production declined from 13.2 million tonnes to 8.7 million tonnes. The share of aquaculture in total fisheries production (marine and inland) by the EIFAAC member countries increased from 10.3 percent to 29.2 percent.

19. In 2019, total fish and seafood consumption by the EIFAAC member countries was 12.9 million tonnes, primarily coming from domestic supply (9.83 million tonnes; 76.1 percent), while 3.1 million tonnes of net import contributed 23.9 percent. EIFAAC's import value of aquatic products increased from USD 21.8 billion in 2000 to USD 67.4 billion in 2021; the 5.5 percent annual growth was higher than the world average yet lower than European and EU27 averages. Aquatic products imports increased in all 37 EIFAAC member countries during the period.

Demand-side perspective

20. In 2022, EIFAAC member countries' per capita GDP was 2.8 times of the world average, with 18 of the top 20 aquaculture countries within EIFAAC having per capita GDP above the world average. EIFAAC member countries' projected growth of 51 percent in per capita GDP between 2020 and 2029 is lower than the world average yet higher than the EU27 average.
21. The average life expectancy at birth (80.5 years) was higher in the EIFAAC membership than European and world averages, yet lower than the EU27 average. The urban population ratio in the EIFAAC area is expected to reach 78.5 percent in 2030 and 84.5 percent in 2050.
22. In 2020, EIFAAC countries' average per capita protein intake (113.1 g/capita/day) was above EU27 and world average. Its average animal protein intake (67 g/capita/day) was higher than the world average yet lower than the EU27 average. The share of animal protein in EIFAAC's total protein intake (59.3 percent) was lower than the EU27 average yet higher than the world average. The share of fish and seafood protein in its animal protein intake (8.2 percent) was lower than both EU27 and world averages.
23. Per capita fish and seafood consumption in the EIFAAC area increased from 18.6 kg in 1999 to 20.3 kg in 2019; the 0.4 percent annual growth was lower than regional and world averages. In most EIFAAC member countries (21 out of 37), per capita fish and seafood consumption was lower than the world average (20.5 kg), while EIFAAC's average per capita fish and seafood consumption (20.3 kg) was slightly lower than the world average. Consumer preference for fish and seafood was above the world average in only eight of 37 EIFAAC member countries. This primarily reflects their relatively low preferences for freshwater & diadromous (F&D) fishes, while preference for marine fishes was above the world average in 22 EIFAAC member countries.
24. EIFAAC member countries' export of aquatic products increased from USD 16.8 billion in 2000 to USD 58.9 billion in 2021. The 6.2 percent annual growth was higher than the world average yet lower than European and EU27 averages. Aquatic products export increased during the period in nearly all 37 EIFAAC member countries.
25. EIFAAC member countries' total population is expected to increase from 638 million in 2020 to 645 million in 2030, an increase of 6.7 million. If per capita consumption remains at the 2020 level in every EIFAAC country, EIFAAC's total fish and seafood demand would increase by 90 000 tonnes, less than one percent of its total consumption in 2020. Even with stable per capita consumption in each country, the average per capita fish and seafood consumption in the EIFAAC area would slightly decline from 20.3 kg to 20.2 kg per year. This counterintuitive outcome could occur because EIFAAC member countries with relatively low per capita consumption of fish and seafood tend to have higher population growth rates.
26. As two thirds of EIFAAC member countries' fish and seafood supply came from import, and more than half of their fish and seafood utilization went to export, there is a large potential for

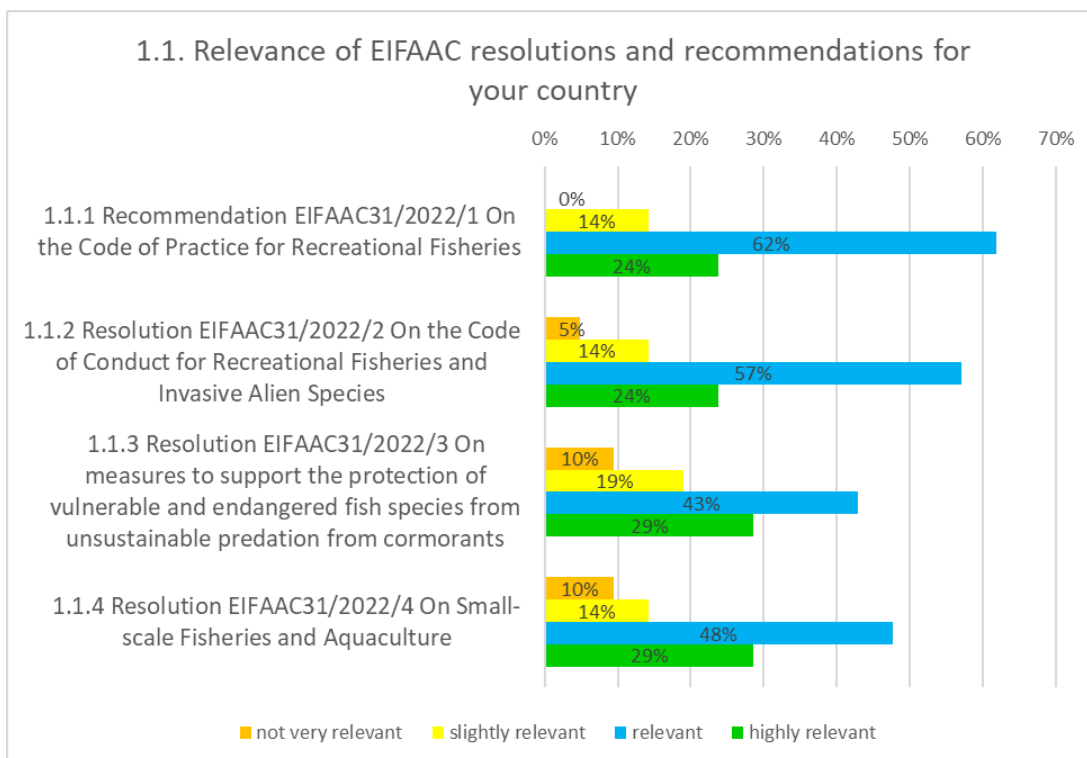
aquaculture development in the EIFAAC area through expanding export markets and/or import substitution.

FINDINGS OF RELEVANCE FOR EIFAAC IN THE CCRF QUESTIONNAIRE OF 2024 CONCERNING EUROPE

27. Global and regional trends in implementation of the Code of Conduct for Responsible Fisheries have been reported to the 36th Session of the Committee on Fisheries (COFI 36), held on 8-12 July 2024. The trends can be found in [COFI/2024/Inf/19](#) “Progress in the implementation of the code of conduct for responsible fisheries and related instruments” and [COFI/2024/SBD/7](#) “Regional statistical analysis of responses by FAO Members to the 2024 questionnaire on the implementation of the Code of Conduct for Responsible Fisheries and related instruments”.
28. [EIFAAC/2024/Inf.16](#) presents the findings of relevance for EIFAAC in the CCRF Questionnaire of 2024 concerning Europe.
29. Thirty-one EIFAAC members responded to the 2024 edition of the questionnaire on monitoring the implementation of the Code of Conduct for Responsible Fisheries (the Code) and related instruments. However, the total number of responses by EIFAAC Members was only nine (9) on most questions, as the EU DG Mare responded on behalf of its members.
30. The responses by EIFAAC members to the question of whether they were aware of FAO Technical Guidelines for Responsible Fisheries, showed that in general these technical guidelines were only known by some 50 percent of the Members. There is thus an effort to be made by FAO to increase awareness on these guidelines. The EIFAAC Secretariat has therefore included all technical guidelines under the CCRF in a USB memory stick which is distributed at this Session. In addition, a limited number of hardcopies of most relevant technical guidelines are made available for collection/distribution.
31. The CCRF questionnaire is in its current format of limited use to EIFAAC for monitoring purposes, and it is unlikely that EU27 member countries of EIFAAC will be reporting individually to all questions in the future CCRF questionnaires. It is therefore proposed to discontinue the analysis of CCRF questionnaire data for future sessions of EIFAAC.

FINDINGS OF THE 2024 SURVEY ON THE IMPLEMENTATION OF EIFAAC RESOLUTIONS AND RECOMMENDATIONS

32. Twenty-one Members participated in the 2024 survey on the implementation of EIFAAC resolutions and recommendations. The detailed outcomes are presented in [EIFAAC/2024/Inf.17](#).
33. The survey showed that the resolutions and recommendations endorsed by EIFAAC 31 are relevant to highly relevant to 72 percent or more of the responding members.



34. Overall, the implementation of the resolutions and recommendation by EIFAAC members is good. Many members indicated that they implement specific measures from the resolutions and recommendation or implement the main measures at least partially.
35. Measures that are only being implemented by a minority of the responding members include the following:
- Under resolution EIFAAC31/2022/3 “Develop national management plans that reduce cormorant predation on protected fish species”
 - Under resolution EIFAAC31/2022/4 “Encourage application of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines)”
36. A large majority of the EIFAAC Membership considered the 2024 monitoring survey easy to complete, and nearly 70 percent indicated that they found the survey a useful tool to remind Members about the resolutions and recommendations and the need for their implementation.