



# COMMITTEE ON FISHERIES

## SUB-COMMITTEE ON AQUACULTURE

### Eleventh Session

24–27 May 2022

## PROGRESS REPORTING ON THE IMPLEMENTATION OF THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES (CCRF) PROVISIONS RELEVANT TO AQUACULTURE AND CULTURE-BASED FISHERIES

### Executive Summary

This paper summarizes the main analytical results of the biennium self-assessment on the implementation of the 1995 FAO Code of Conduct for Responsible Fisheries (CCRF) in aquaculture by FAO Members. The previous assessment was reported to the Tenth Session of the COFI Sub-Committee on Aquaculture in 2019. This report includes the assessment of Regional Fishery Bodies and Aquaculture Networks (RFB/ANs) on the compliance with the Code by countries in their area of mandate.

The analysis includes the assessment of the degrees of implementation performance at global and regional levels, extent of usage of FAO assistance by Members, and levels of support of RFB/ANs to countries, by CCRF measures. The implementation performance of groups of main aquaculture producers and low-income food-deficit countries was analysed and is also presented here.

### Suggested action by the Sub-Committee

The Sub-Committee is invited to:

- Review and comment on the document;
- Comment on the continuing relevance and usefulness of this tool for Members' self-assessment and regional and global assessments on the implementation performance on compliance with the Code;
- Recommend actions to improve the reporting tool and process and the use of assessment results.

## INTRODUCTION

1. This is a biennium report on the progress made in the implementation of aquaculture-related provisions of the Code of Conduct for Responsible Fisheries (CCRF or the Code). It highlights the main results and findings based on the responses of FAO Members and Regional Fishery Bodies and Aquaculture Networks (RFB/ANs) to the 2021 web-based survey. More details on the numerical results are presented in the Session Background Document (COFI:AQ/XI/2022/SBD.1).

2. There have been significant modifications to the questionnaire and the reporting system in previous surveys and some small ones, in response to Members' suggestions. FAO in 2008 started a participatory process to design a specific questionnaire. The new questionnaire has been used since 2013 by Members to report on their implementation performance. In the 2015 survey, the web-based survey platform designed for the main CCRF questionnaire was introduced to the CCRF-Aquaculture questionnaire. In 2017, the RFB/ANs were involved for the first time in the survey. A modified Members' questionnaire was provided to the RFB/ANs that was designed to (1) capture the perception and/or assessment of RFB/ANs on the compliance with the Code in aquaculture by the countries in their area of mandate, and (2) assess the effort of RFB/ANs to support the countries' compliance. The same questionnaires and reporting system used in 2017 and 2019 is now applied to this 2021 survey.

3. The following section describes the methodology used to obtain the raw data. The characteristics of data and basis for analysis are summarized. The results are presented in aggregate form by group of Members or submissions in three sub-sections. The first part is the result of the assessment of Members of their performance on the compliance with the Code. The second presents the results of the degree of usage by Members of the FAO guidelines, tools, and assistance in implementing the Code. The third describes the overall results of the RFB/ANs' assessment of countries' compliance with the Code and their assistance to the countries within their area of mandate.

## SURVEY METHOD AND QUESTIONNAIRES

4. The survey was conducted during March – June 2021. The two questionnaires, one for FAO Members and the other for RFB/ANs, were posted online. The questionnaire online system is accessible through a dedicated portal on the FAO domain using unique usernames and passwords, and meets the necessary confidentiality, security and usability requirements.

### Member questionnaire

5. The questionnaire for Members contains 45 questions (that refer to instruments or measures or mechanisms) organized into four parts, each part consisting of related groups of measures. Part 1 consists of the Essential Measures, for example aquaculture policy (1 question), aquaculture development plan (1 question) and regulatory measures (17 questions). Part 2 contains the Support Mechanisms (13 questions) to facilitate the measures in Part 1. Part 3 comprises the Enhancing Mechanisms (5 questions) which are meant to improve the implementation of the measures listed in Parts 1 and 2. Part 4 is to assess the capacity (8 questions) of the Member to support the implementation of Parts 1, 2 and 3.

6. Members were requested to respond to all questions in numerical rating scales, ranging from 0 to 5, or to select 'n.a.' for 'not applicable' or for a question they deem not relevant. If the measure is present, they are asked to rate the effectiveness and extent of its enforcement or implementation, with 1 for very low effectiveness and extent of implementation or enforcement, 2 for low, 3 for moderate, 4 for high, and 5 for very high. A '0' response means the measure was not present or it was not implemented.

7. The same questions (on measures in Parts 1, 2, 3 and 4) were asked to assess the degree of usage of FAO guidelines, tools, and assistance in developing and implementing the measures. The score

rating scales are: 0 for not used at all, 1 for very minimally, 2 for minimally moderately, 3 for moderately, 4 for highly used, and 5 for very highly or extensively used/supported by FAO guidelines, tools, or assistance (hereinafter called FAO assistance).

8. In addition to the numerical rating, the respondent may write comments on each question in the online questionnaire. The web-based system also provides a guide for answering the questionnaire and a set of instructions for the responding team.

### **RFB/AN questionnaire**

9. The RFB/AN questionnaire has three parts, containing the same questions as those in Parts 1, 2 and 3 of the Member questionnaire. This questionnaire asks the responding organization to specify its mandates.

10. The RFB/AN is requested to rate its assessment of the countries' performance, as an estimated average score for the group of countries in its area of mandate. The same scale (from 0 to 5) used in the Member questionnaire applies to this questionnaire.

11. The RFB/AN is also requested to rate its own performance in supporting countries' compliance with the specific requirement or measure listed in Parts 1, 2 and 3. A low score (0, 1 or 2) indicates that the organization provides no or very limited assistance on the specific measure. This could be seen as an indication of the RFB/ANs need for support to improve its own assistance to countries towards improving their compliance to a specific measure. This information can help FAO and partners to better focus their support and collaboration with RFB/ANs to improve Members' implementation of the Code. A score of 3 means the RFB/AN is providing support to some countries but with a minor degree of effectiveness. A score of 4 means that the RFB/AN is making relevant efforts to support the measure in the countries and does so with a wide coverage. A score of 5 means the RFB/AN is providing full and effective support to countries within its area of mandate to implement the measure. In some cases, the specific measure could be effectively implemented by countries so that there might be no need for support from the RFB/AN. In this case, the answer could be 'not applicable' (n.a.).

### **DATA AND ANALYSIS**

12. The raw data of responses were exported from the web-based system in Excel files, which were then used for analyses. The total number of submissions (total sample size) was 74, or 37 percent of the total number of FAO Members.<sup>1</sup> It was 71, or 36 percent in 2015, 78, or 40 percent in 2017 and 113 or 57 percent in 2019. The participation by members had peaked (57 percent) in 2019 but has dropped drastically back to levels of 2015 and 2017. Ten RFB/ANs responded to the questionnaire compared to 22 in the 2019 survey.

13. Members answered all the questions that assess their implementation performance. On average, of the 45 questions, 100 percent (all 74 Members) answered with a score (either 0, 1, 2, 3, 4 or 5). Among the 74 responding Members, 42 percent (31 Members) indicated 'n.a.' in their answers. The 'n.a.' answers were mostly on some questions in Part 2 and Part 3 of the questionnaire. For the assessment on usage of FAO assistance, 92 percent (68 Members) provided a score and 57 percent indicated an 'n.a.' response.

14. The raw data of individual submissions were aggregated in the calculation of global and regional scores. For comparative analyses among regional scores, the average scores using equal weight were also calculated by group of measures (Parts 1, 2, 3 and 4) and for the overall results of all parts.

---

<sup>1</sup> See the list of responding Members and submission rates by region in Table 1 and Table 2 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

The overall results of implementation scores were then correlated with those of the degrees of usage of FAO assistance. The results of low scores (0–2.00) are highlighted.

15. The analysis makes a comparison of the 2019 and 2021 implementation scores: the submissions from the same Members who responded both in the 2019 and 2021 surveys (a total of 57 submissions) were used. The average scores were compared among regions.

16. Also carried out was a comparison of the global (all 74 responding Members) and the group of main aquaculture producers' implementation scores. The main producers are 'the top 19 responding Members that had the biggest production in 2018 (more than 200 000 tonnes)' according to FAO's Statistical Yearbook 2020.<sup>2</sup>

17. The performance of low-income food-deficit countries (LIFDCs) was evaluated and compared to the global scores. The analysis was based on the submissions of 12 aquaculture producers in LIFDCs (FAO, 2021).<sup>3</sup>

## RESULTS AND IMPLICATIONS

### Members' self-assessment of implementation performance

18. The overall results indicate that the levels of implementation performance on compliance with the Code varied by region and by group of measures (Parts 1, 2, 3 and 4).

19. Using the global average score of 3.40 as a benchmark, this is how the regions performed relative to the global average: Northern America (4.25), Asia (3.85), Europe (3.72), Near East (3.38), Southwest Pacific (3.00), Africa (2.96) and Latin America and the Caribbean (2.61).<sup>4</sup>

20. At the global level, the average scores for essential management measures (EMM), supporting measures (SM), enhancing mechanisms (ENM) and support capacity (SCP) were 3.82, 3.36, 2.95 and 3.46 respectively, meaning a slight global increase with respect to the 2019 assessment for all the measures. In general, the scores for all questions were skewed towards 4 and 5 in North America, Europe, Asia and to some extent also in the Near East; whilst they were closer to 3 or less in the other regions namely Africa, Latin America and the Caribbean and Southwest Pacific. These scores are possibly reflecting the differences in the state of development of the sector among regions but also reflecting a more objective scoring as can be seen in the coherence of responses<sup>5</sup> and from the comments inserted in the allocated space.

21. Southwest Pacific had the greatest number of measures with low scores (8 of 45, or 18 percent of the total number of measures with low average scores). Northern America, Asia and Europe had quite balanced scores across the four parts, which are reflected in their relatively high overall performance levels.<sup>6</sup>

22. The global scores of the 2019 and 2021 surveys were not significantly different. At the regional and global level, the results indicate improvement on implementation performance. In Part 1, there is slight improvement in all the regions except North America and Latin America and the Caribbean which

---

<sup>2</sup> The list of main producing countries is indicated in Table 1 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

<sup>3</sup> See the list of responding LIFDCs in Table 1 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

<sup>4</sup> See Table 3 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

<sup>5</sup> For example lower scores of SCP, ENM and SM agreeing with lower scores in EMM.

<sup>6</sup> See Table 3 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

had decreasing scores. The average scores in Part 2 indicate improvement in all regions. In Part 3, the results show improvement in the average scores of all the regions except for the case of Africa which had a decreasing score. Europe and Near East had decreasing average scores in Part 4. The average scores of FAO Members' self-assessment on implementation performance between the 2019 and 2021 surveys indicate an improvement in all the measures. Between 2019 and 2021, there is an increasing trend in the scores.<sup>7</sup>

23. As to the group of main aquaculture producers (top 19 producers on the list of Member submissions, half of which are from Asia), the group's overall performance scores corresponded to the global scores and indicated higher performance levels in all 4 Parts. Using the global score as a benchmark (3.40), six Members in this group had overall scores lower than the global average, specifically: Ecuador: 2.57, Nigeria: 2.61, Chile: 2.87, Mexico: 3.05, Brazil: 3.20 and Myanmar: 3.31.<sup>8</sup>

24. In contrast, the average scores of the LIFDC group (based on 12 submissions – 7 from Africa, 4 from Asia, and 1 from Southwest Pacific with 3 main producers with more than 200 000 tonnes of food-fish output) were lower than the global scores in all the 4 Parts; specifically: 3.75 in Part 1, 2.92 in Part 2, 2.20 in Part 3 and 3.00 in Part 4.<sup>9</sup> Among the 12 responding Members, 8 (67 percent) had overall scores lower than the global average (less than 3.40) and this include two Members with low and very low scores, specifically: 1.78 and 1.97.

### **Use of FAO guidelines, tools and assistance**

25. On the usage of FAO guidelines, tools and assistance (hereinafter referred to as FAO assistance) in implementing the Code, the regions whose overall scores are relatively high and above the global average of 2.62 were Asia (3.19), Near East (3.09), Africa (2.85) and Europe (2.72).

26. FAO assistance was mostly used for the development and implementation of the Support Mechanisms listed in Part 2 (3.36) and Enhancing Mechanisms listed in Part 3 (2.82). Among all 45 measures, the top five with relatively high scores of usage of FAO assistance are, in descending order, the following: (1) Use of alien species, (2) Aquaculture policy, (3) Aquaculture development plan, (4) Food safety, and (5) Fish health management.

27. There is a correlation between Members' scoring with regard to regulations and measures and their scores for FAO assistance to those same regulations and measures. It would be fair to say that the higher degree of usage of FAO assistance contributed to a better implementation performance, and vice versa. This however did not apply to Europe and Northern America where there was no correlation between performance and usage of FAO assistance. In other words, regarding the usage of FAO Assistance, Northern America and Europe had overall average scores of 2.50 and 2.72 respectively while the average scores of North America and Europe on implementation performance were 4.25 and 3.72 respectively.

28. In several measures, the usage of FAO assistance had low global scores (0–2.00).<sup>10</sup> This is the case with North America (45 measures in Parts 1, 2, 3 and 4) Southwest Pacific (44 measures in Parts 1, 2, 3 and 4), Europe (30 measures Parts 1, 2, 3 and 4), Latin America and the Caribbean (24 measures in Parts 1, 2, 3 and 4), Africa (13 measures in Parts 1, 2, 3 and 4), Near East (4 measures in Parts 2, and 3), Asia (2 measures in Part 2 and 3). The results indicate that the degree of usage of FAO assistance is low and that the assistance with regard to some specific measures such as: aquaculture farmers have access to commercial insurance, application of the polluter-pays principle, farms are covered by government assistance scheme in case of disasters, incentive system for farmers to restore or rehabilitate

<sup>7</sup> See Table 4 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

<sup>8</sup> See Table 5 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

<sup>9</sup> See Table 6 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

<sup>10</sup> The measures are highlighted in Table 7 of the Session Background Document (COFI:AQ/XI/2022/SBD.1).

resources degraded by their aquaculture activities may be inadequate. Improving the overall implementation performance of these measures would require higher usage of FAO assistance for these measures as relevant to the level of aquaculture development in the region or of a country.

### **RFB/ANs' assessment**

29. The results of RFB/ANs' assessments on the implementation performance of countries in their area of mandate as well as their support to countries came from 10 responding organizations.<sup>11</sup> Their member countries are diverse, many of them cover countries in several regions, and some have a world-wide coverage.

30. RFB/ANs' scoring for the implementation performance of countries concerning EMM, SM and ENM were 3.50, 3.00 and 2.62, respectively, and the average scores of RFB/ANs for the support they provide to their members with regard to EMM, SM and ENM are 3.50, 3.11 and 2.00, respectively. Such scoring results suggest that some RFB/ANs are making relevant efforts to assist their members but their effectiveness could be improved.

31. The overall assessment scores are consistent with the FAO Members' self-assessment scores: a relatively high implementation performance in Part 1 and Part 2 and with the lowest scores in Part 3. These overall levels of implementation performance also correspond to the levels of their support to the countries.

32. The measures with relatively low scores of implementation performance as assessed by responding RFB/ANs were the following: Incentive system for farmers to restore or rehabilitate resources degraded by their aquaculture activities; Application of the polluter-pays principle; and Access to commercial insurance, which scored 1.67, 1.67 and 1.86, respectively.

33. The overall scores of RFB/ANs' performance in supporting implementation of countries were low in the following measures: Incentive system for farmers to restore or rehabilitate resources degraded by their aquaculture activities; Farms are covered by government assistance scheme in case of disasters; Farmers have access to institutional credit; and Access to commercial insurance which had average scores of 1.86, 1.67, 0.40 and 0.40, respectively.

34. Both results of RFB/ANs' assessments on the implementation performance of countries and their support to countries indicate that the measure 27 (Incentive system for farmers to restore or rehabilitate resources degraded by their aquaculture activities) and 37 (Access to commercial insurance) had low average scores.<sup>12</sup> RFB/ANs should put more efforts and assistance on these measures.

### **CONCLUSION**

35. Overall, results of the 2021 reporting of compliance with the Code are broadly consistent with the 2019 reporting both at global and regional levels. Scores in general were higher than those in 2019, except for some measures such as (1) Incentive system for farmers to restore or rehabilitate resources degraded by their aquaculture activities and (2) Impacts on biodiversity which showed slight decrease in some regions (Southwest Pacific). More than a half of the responding Members had a relatively high performance, in other words, above the global average. Of the other responding Members, which had a lower performance, some had low and very low scores, and these include some of the aquaculture producers classified as low-income food-deficit countries. The results provide evidence that there is a discrepancy between aquaculture growth and development capacity.

---

<sup>11</sup> See Table 8 of the background document (COFI:AQ/XI/2022/SBD.1).

<sup>12</sup> See Table 12 of the background document (COFI:AQ/XI/2022/SBD.1).

36. In general, Members are making efforts to implement the Code in the aquaculture sector. The results indicate that the aquaculture policies and development plans are relatively well developed, likely the result of Members' putting more effort and resources on these measures. However, the existence and compliance with specific regulations show some global gaps that need to be addressed to ensure sustainability of the sector and minimizing the impacts on biodiversity and ecosystem services. These include regulations on feeds, minimizing the impacts on biodiversity and prevention and mitigation of aquaculture escapes.

37. The social role of aquaculture and the support to farmers, especially small scale farmers, to facilitate the implementation of regulations and the fulfilment of the aquaculture plan to comply with the Code at large, continues to show low levels of support to the social role and relevance of the sector as well as to small scale farmers, and this low support could be a major obstacle for the implementation of the Code at the global level. The social role of aquaculture and the support to small scale farmers are priority areas for the aquaculture sector to be more sustainable. Increased efforts are needed to improve supporting mechanisms such as integrating aquaculture in watershed and coastal zone management plans, incentive systems for farmers, application of the polluter-pays principle; and the enhancing mechanisms, such as ensuring voluntary certification systems, improving (access to) credit for small scale farmers, access to commercial insurance and government assistance in case of disasters. The results from the assessment on the usage of FAO assistance and RFB/AN's support to countries can be a reliable guide to evaluating the measures on which the nature and extent of assistance can be focused.

38. It is fundamental to focus on reducing differences both among and within regions and to lessen the number of countries that scored 2 or less in most measures. This could be a relevant global benchmark for aquaculture sector performance and compliance with the Code. Assistance and collaboration with RFB/ANs may be essential as they could target these countries and increase regional cooperation for better improvement. More efforts are needed by Members to better disseminate FAO publications and tools to assist the implementation of measures and mechanisms to improve the adoption of the Code.

## **GUIDANCE SOUGHT**

39. The Sub-Committee is invited to:

- Review and comment on the document;
- Comment on the continuing relevance and usefulness of this tool for Members' self-assessment and regional and global assessments on the implementation performance on compliance with the Code;
- Recommend actions to improve the reporting tool and process and the use of assessment results.