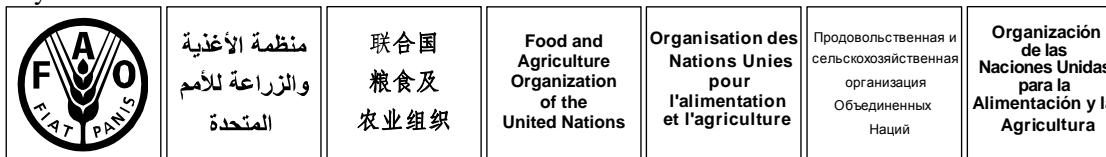


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COMMITTEE ON FISHERIES

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

Executive Summary

This document presents; (a) the status of the progress in implementing the aquaculture and culture-based fisheries provisions of the 1995 FAO Code of Conduct for Responsible Fisheries (CCRF) as informed by member countries in 2012, based on the results of the general CCRF questionnaire, and (b) the status based on the results of the new CCRF aquaculture questionnaire, as informed by members in 2013.

Sixty-seven countries responded to the new questionnaire representing 36 percent of the Member countries reporting on aquaculture production, this percentage covers nearly 90 percent of the global aquaculture production. Such a response, and coverage, clearly indicates an overall improvement of the aquaculture related responses to the general CCRF questionnaire however further efforts are needed to improve reporting and the quality of the reports.

The global responses indicate a good overall status of governance in aquaculture management including policy, planning and regulation, whilst efforts are underway to further improve the situation. The results of the new questionnaire appear to be a good source of national information which could be useful in FAO's regional and global trends analyses and feedback to Member countries.

The Sub-Committee is invited to:

- 1) Review and comment on the document;
- 2) Comment on the use of this CCRF reporting tool as an opportunity for self-assessment and global assessment of aquaculture performance including compliance to the aquaculture provisions of the Code; and
- 3) Recommend actions and activities towards further improving the reporting process and the use of the reporting tool.

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PROGRESS IN IMPLEMENTING THE CCRF PROVISIONS ON AQUACULTURE AND CULTURE-BASED FISHERIES

1. FAO has been monitoring the implementation of the 1995 FAO Code of Conduct for Responsible Fisheries (hereinafter referred to as the Code or CCRF) with a standard questionnaire distributed to Member countries, regional fishery bodies (RFBs) and international non-governmental Organizations¹ (INGOs). The questionnaire includes sections on aquaculture, in particular Article 9 and some elements in Articles 5 and 10 of the CCRF.
2. Article 4.2 of the Code states, inter alia, that FAO will report to the FAO Committee on Fisheries (COFI) on the application and implementation of the Code using a standard questionnaire. In this regard, the COFI Secretariat biannually reviews the responses received from FAO Members, regional fishery bodies (RFBs), and international non-governmental organizations (INGOs), and reports on the progress to COFI. The Secretariat of the COFI Sub-Committee on Aquaculture (COFI/SCA) also regularly reviews the progress in the implementation of the Code's aquaculture-related provisions using the same methodology and presents this to the Sub-Committee for discussion and decision. This document is the sixth of such reports prepared by the Secretariat of the Sub-Committee and provides (i) a summary of the results of the general questionnaires regarding the questions that are relevant to aquaculture, and (ii) presents for the first time the results of the new CCRF aquaculture questionnaire.

AQUACULTURE RELATED RESPONSES IN THE GENERAL CCRF QUESTIONNAIRE

3. Of the fifty-six countries which compiled and submitted the questionnaires by January 2012, only 45 countries responded to questions relevant to aquaculture. A limited number of elements are summarized here below.²
4. "Fisheries Management" and "Aquaculture Development" continue to be ranked as top priorities. At the global level, 44 percent of the countries indicated having a national aquaculture policy framework, largely completed and/or implemented. Thirty-six percent and 39 percent of the countries indicated having a similar status for national legal framework and national institutional framework respectively, with regional differences.
5. Seventy-five percent of countries indicated having a government-developed code or instrument of best practices for aquaculture in accordance with the CCRF, whilst 59 percent of countries indicated having codes developed and implemented by producers, 32 percent by aquaculture suppliers and 32 percent by various manufacturers.
6. Seventy-eight percent of countries indicated the need for improvement regarding the environmental assessment of aquaculture operations and 66.7 percent indicated that improvements are needed for the monitoring of aquaculture operations. Regarding minimizing harmful effects of alien species introductions, 36 percent of the countries indicated having fully effective measures, whilst 57 percent indicated the need for improvements and six percent indicated this being largely ineffective. Members indicated that strengthening institutional technical capacity was the most critical in order to improve the three mentioned core procedures. Members are encouraged to promote responsible aquaculture practices in support of rural communities, producer organizations and fish farmers. Ninety-one percent of Members stated that they had taken the necessary measures in this regard.

¹ Questionnaire for Monitoring the Implementation of the 1995 FAO Code Of Conduct For Responsible Fisheries. The International Plans of Action On Capacity, Sharks, Seabirds, and Illegal, Unreported and Unregulated Fishing and The Strategy for Improving Information on Status and Trends of Capture Fisheries.

² COFI/2012/3 <http://www.fao.org/cofi/23150-0eecd1587da098786f61fd08a7fe04cf.pdf>
COFI/2012/SBD.1 <http://www.fao.org/cofi/33132-0abf8a3d0457871b8f80814b0f8963dbf.pdf>

A NEW QUESTIONNAIRE TO IMPROVE THE REPORTING OF THE IMPLEMENTATION OF AQUACULTURE AND CULTURE-BASED FISHERIES PROVISIONS OF THE CCRF

Background

7. In order to better address aquaculture and to improve the reporting rate and implementation of the Code, both COFI and COFI/SCA requested FAO to develop a questionnaire to assess the status of compliance of States to the aquaculture provisions of the CCRF. In response, FAO drafted a reporting template (questionnaire) specific to aquaculture to supplement the aquaculture section in the comprehensive CCRF questionnaire. A draft questionnaire was presented to COFI/SCA IV in 2008³. The Sub-Committee recommended further action on the questionnaire, which was subsequently endorsed by the 28th session of COFI (Rome, March 2009).

8. The recommended actions included the revision of the pilot version of the questionnaire and its testing in different regions to reflect different environmental conditions of the sector and ensure global applicability. To carry out these recommendations, a pilot testing process of the new questionnaire was implemented and the results were presented to COFI/SCA V in 2010⁴ where it was recommended that the questionnaire be accompanied by an instruction manual and completed on a biennial basis by all Members and that the two consecutive reporting periods could serve as a trial. The final questionnaire and results of the pilot testing and training exercise were presented to COFI SCA VI in South Africa for endorsement and implementation for two reporting periods to evaluate its effectiveness⁵.

9. Pursuant to the above recommendations, during the last intersessional period the secretariat: (i) produced the new CCRF aquaculture questionnaire, supported by an easy to use imbedded guide to the answers (scores) in an Excel file and accompanied by a guide in MS Word, (ii) made the questionnaire and guide available in the six official languages of the Organization and (iii) distributed the questionnaire to all member countries during the latter part of January 2013, and (iv) distributed a modified questionnaire, recognized by FAO, to RFBs and relevant NGOs

QUESTIONNAIRE DISTRIBUTION AND RESPONSES: ISSUES AND CHALLENGES

10. Sixty-seven countries compiled and submitted the aforementioned questionnaires to FAO⁶. It should be noted that this is a significant result when compared to the responses to the aquaculture questions in the previous general CCRF questionnaire which was in fact only 45. The current responses represent 36 percent of the member countries reporting on aquaculture production and include those that contribute towards 88 percent of the global production. Most questionnaires were received following the deadline and in many cases after the Secretariat approached the aquaculture authorities directly. In many cases Members indicated not having received the questionnaire at all and some received it after the closure of the deadline. Hence, in future, the distribution process will need to be reviewed.

³ Paras 30, 33 and 34. COFI SCA IV, Puerto Varas Chile, October 2008.
<ftp://ftp.fao.org/docrep/fao/011/i0615t/i0615t00.pdf>

⁴ Paras 18, 19 and 20. COFI SCA V, Phuket Thailand, September 2010
<http://www.fao.org/docrep/013/k9426t/k9426t00.pdf>

⁵ Paras 25 and 26 COFI SCA VI, Cape Town, South Africa, March 2012
<http://www.fao.org/docrep/016/i2765t/i2765t.pdf>

⁶ The questionnaire was despatched to FAO Members on 23 of January 2013 and the closure date for acceptances was 15 of March 2013. Follow-up requests were despatched on March 10th and regional offices were requested to approach individual countries that had not returned questionnaires. Questionnaires were accepted for inclusion in the analysis until April 15 2013. Twelve questionnaires were received from Africa, 7 from Asia, 25 from Europe, 15 from Latin America and the Caribbean, 5 from the Near East, 1 from Northern America and 2 from South West Pacific. Two questionnaires arrived after that date but were not included in the analysis.

11. Many countries indicated having followed the recommended process of forming a response team to address the scoring in a comprehensive manner. Other countries did not have enough time to go through the recommended process.
12. For each question, the Questionnaire offers the possibility to score from 0 to 5, 0 being the absolute lack of the measure or the mechanism involved in the question or statement, 4 denoting that the measure or mechanism is being applied, and 5 applies when there is full enforcement at the ground level. There was also the possibility to indicate that the question or statement was not applicable or not relevant (n.a.).
13. Many countries attempted a critical self-assessment and provided additional comments as well as information on their reasoning for the scoring either within their messages or part of the specific comments provided in the questionnaire. In this latter context, countries indicated the value of the self assessment with the response team and their need of assistance or suggestions of further efforts to improve. They scored themselves accordingly.
14. Numerous countries provided very high scores, 4 or 5, for every question thus indicating there was little or no room for further improvement in aquaculture sustainable development. In some cases there were contradictions or inconsistencies amongst the scores, suggesting that the process had not been carried out in a thorough manner or that guidance was not clear enough. Confidentiality of the responses may still be an issue for some members.
15. A more effective distribution of the questionnaire and improvement of the understanding of the tool and benefits of providing accurate responses remain a major challenge.
16. Only one IGO responded to the questionnaire.

STRUCTURE OF THE QUESTIONNAIRE AND ANALYSIS OF THE DATA

17. The new questionnaire⁷ comprises three sections. Section I which addresses the **extent of compliance** to a provision or aspects of a provision, and has three parts which assess the degree of implementation. Part 1 consists of the **essential management instruments or measures (EMM)** to achieve the provisions of the CCRF including the existence of an aquaculture policy, aquaculture development plan and regulations to support the policy; Part 2 consists of the **supporting mechanisms (SM)** to facilitate the measures listed in Part 1, and Part 3 deals with the **enhancing mechanisms (EM)** to improve the implementation of the measures listed in Parts 1 and 2. Section II of the questionnaire assesses the support **capacity (SCP)**, this is the capacity of the State to develop knowledge, information, technology and advice in support of the development, enforcement, implementation, monitoring and evaluation of the measures included in Section I. As it is now of growing importance, questions on capacity to deal with disasters and climate change are also included.
18. For each question or statement the questionnaire also includes the possibility to evaluate FAO support in complying with the specific measures involved. Also web links are provided for the on line review of the relevant publications or tools.
19. Two types of descriptive analyses were done for the responses to each question; a percentage distribution of responding countries by scores at the global level and by region, and global and regional average scores. While the percentage distribution of responses by score provides a more accurate perception of variability within and between regions regarding compliance,⁸ the average scores offers an easy indication of the status of compliance with different provisions of the Code.

⁷ The questionnaire is available at http://intranet.fao.org/departments/fisheries/news/news_detail/?dyna_fef%5Buid%5D=17031

⁸ The percentage distribution by score by regions refers to the **reporting countries** and not to all Members producing aquaculture in that region

These can be used for quick comparative and benchmarking purposes; however no statistical comparisons were made.⁹

20. A statistical summary of Members responses, containing all tables and figures referred to in this document, is made available as a Background Document, in English, on the COFI SCA Web site and at COFI SCA to be read in conjunction with this paper.¹⁰

21. Within a benchmarking framework, the ideal situation for any measure is to have the highest score (5) and having the distribution of the scores skewed towards 4 or 5 in the global or regional analysis would indicate a uniform optimal global and or regional compliance for a specific measure or indicator (Figure 1, Background Document).

RESULTS OF THE FIRST GLOBAL TRIAL OF THE NEW CCRF AQUACULTURE DEDICATED QUESTIONNAIRE

22. At the global level, the average scores for EMM, SM, ENM and SCP were 3.6, 3.2, 2.4 and 3.3 respectively which gives an indication that essential management measures are better implemented than supporting (SM) and enhancing mechanisms (ENM) and support capacity (SCP). The detailed analysis is consistent with this perception, perhaps reflecting an overrating of the EMM or insufficient understanding and or less information on the other three. The average scores for all the categories of measures were higher in Asia, South Pacific and Northern America, hence the distribution of scores was skewed towards 4 and 5 in these regions, whilst closer to 3 in the other regions, possibly reflecting the differences in the state of development in the sector. Likewise Africa, Latin America and the Caribbean and Near East countries more often indicated the need for improvement and often requested FAO assistance in the comments section of the questionnaire.

23. The questionnaire provided a wealth of information which is impossible to describe in detail in the present document; however an attempt is made to address the most relevant provisions of the Code and relevant issues, also connecting to the main questionnaire and past exercises when appropriate. On the other hand, this being the first trial of the instrument it is not possible to go into great detail on the interpretation of the information especially considering that not all the countries may have done the same thorough self-examination and response.

Essential management instruments and measures (EMM)

24. This section underscores the fact that aquaculture development occurs in an orderly manner if its development objectives are clear and its governance is in place. Policy and its enabling regulations norm the sector's development while a national plan guides its implementation. Rating should be based on whether these are present and the extent of their implementation.

25. Regarding the global score for EMM,¹¹ 25 and 31 percent of the responding countries scored 4 and 5 respectively, none of countries scored 0 and only 4.5 percent scored 1 while the global average scores for the three components of the EMM, that is **policy, plan and regulation**, were 3.7, 3.4 and 3.7 respectively.

26. Regarding policy, 30 percent of the countries scored 5, and 30 percent scored 4, therefore 60 percent of the responding members reported a well developed and implemented aquaculture **policy**. This result represents a slight overrating regarding the reports to the general CCRF questionnaire of 2012, where 44 percent of reporting countries indicated having a largely complete and enabling policy.

⁹ The scores do not follow a normal distribution therefore statistical analyses would require either transformation of the data, or the use of non parametric statistics. For the purposes of the analysis done in this exercise, the values that summarize a group of measures, for example the score for "regulations" were calculated using the median of the scores for the specific regulations.

¹⁰ This is done following the standard practice of providing summary information on the reporting by Members to the general CCRF questionnaire for COFI

¹¹ Calculated as the Median value of policy, planning, and regulation

27. In general, in all regions and countries the scoring for the existence of an aquaculture **plan** was slightly lower than that of aquaculture policy and regulations. Fifty two percent of the countries scored 4 or 5 for the Aquaculture plan, whilst 21 percent scored between 0 and 2 indicating the need for improvement regarding the existence and implementation of an aquaculture development plan. This is consistent with individual country reports in regions such as Africa and Latin America and some countries in Europe, where aquaculture is starting to develop or is a very new sector.
28. Regarding the implementation of the aquaculture **regulation**,¹² 42 and 19 percent of the countries scored 4 and 5 respectively, 27 percent scored 3, whilst 3 and 9 percent of the countries scored 1 and 2, respectively. When analysing compliance with specific regulations some global patterns and regional differences show, for example, regulations regarding the use of alien species, compliance with food safety and movements of live aquatic animals appear with the highest scores; namely 4, 4, and 3.9, respectively.
29. Globally, 43 and 33 percent of countries scored 4 and 5, respectively for the implementation of regulations regarding the **use of alien species** while only 6 percent of countries scored 2 or less. Regarding the implementation of **EIA** regulations 44 and 22 percent of the reporting countries scored 4 and 5 respectively, therefore 66 percent of reporting countries seem to have EIA regulations well implemented, and 27 percent have regulations however the extent of implementation is lower. These results are slightly overrating the implementation of EIA with respect to the answers to the general CCRF questionnaire in 2012.
30. Compliance with regulations regarding the minimization of impacts on **biodiversity** follows closely that of EIA.
31. Regarding **fish health** regulations, the average score was 3.5 but the scores were widely spread among and within regions. While 19 and 28 percent scored 4 and 5 respectively, 36 percent of countries scored 3, and 15 percent scored 2 or less.
32. The lowest scores for specific regulations in almost all regions were those related to **carrying capacity** of recipient water bodies, and regulations for **escapes**, the global average scores being 3 and 2.7 respectively. The scoring on regulations regarding carrying capacity was widespread, whilst 34 percent scored 4 or 5, 42 percent of reporting countries scored 2 or less. A similar pattern was observed in all regions.
33. Regarding regulations for escapes, 28 percent of countries scored 2 or less, and 17, 14, and 7 percent of the countries reporting in Africa, Asia and LAC respectively scored 0, meaning that they do not have any regulations regarding aquaculture escapees. This result is somewhat contradictory with the very high scoring regarding regulation for the use of exotic species, unless the provisions regarding escapes are within such regulations.
34. Regulatory frameworks for **fish stocking** also came low in some regions, 33, 29 and 60 percent of the countries from Africa, Asia and LAC respectively scored 2 or less for stocking while the scores were higher in the other regions.
35. Regulation regarding **aquaculture zoning** also showed comparatively lower scores in all regions except Asia, and the scores were widely spread. While 46 percent of countries at the global level scored 4 or 5, 42 percent of countries in Africa, 20 percent in Europe, and 40 percent in LAC scored 2 or less
36. In general, scores for all regulations were slightly lower in Africa and Latin America for most regulations and the distribution of scores spread around 3.
37. More information regarding the status of compliance for each specific regulation is provided in the background document.

¹² Calculated as the Median of the 17 specific regulations indicated in the questionnaire

Support mechanisms (SM) that facilitate the implementation of essential management measures

38. Questions in this section were aimed at assessing the extent and also the capacity of the country to support the Policy and the Development Plan, and specifically the current regulations.
39. Within the SM, **consultation with stakeholders** for the policy and development plan and, the participation of **farmer associations** in sector development and management has the largest average scores, 4.2 and 3.6 respectively. For the former, 81 percent of the countries scored 4 or 5, and only 6 percent scored 2 or less.
40. Government **monitoring and data collection** was also relatively high with a global average score of 3.6, and 54 percent of the countries scoring 4 or 5. However, scores were spread within and amongst regions, 25 percent of countries in Africa, 27 percent in LAC and 40 percent of those in Near East scored 2 or less, reflecting their need for improvement.
41. The implementation of **good aquaculture practices**, BMPs, GAPs etc., had a global score of 3.2. According to the guidance provided in the questionnaire it means that such practices exist but they are not widely implemented. In fact, 44 percent of the countries scored between 2 and 3, and 7 percent of the countries scored 0, mostly in Africa, including some countries in Europe and LAC.
42. Consideration of ecosystem **functions** in aquaculture planning had a global score of 3.3, and 63 percent of the countries scored between 3 and 4, indicating that ecosystem functions are being addressed but not yet to the full extent. This pattern was common in all regions.
43. The application of **polluter payments** in aquaculture had a score of 3.2, and 64 percent of countries scored 3 or 4, and 16 percent scored 5, indicating that a large percentage of countries have some fines or penalties due to the pollution but the implementation is not that effective. On the other hand, 25 percent of countries in Africa and 14 percent in Asia scored 0, indicating the absence of such measures.
44. Aquaculture integration to **community development** scored 3.1 globally and the distributions of scores was spread around 3, with high within-region variability. Few countries in the Near East, Africa, and Europe scored 1 or 0, while others in the same regions scored 3 or 4. In fact, 58 percent of the countries in Africa scored 4 or 5, indicating that aquaculture is being well integrated into community development; a very positive sign for the social impact of the sector.
45. Regarding the extent of **investment in extension**, the average global score was 3, with 27 percent of the countries scoring 2 or less, and 17 percent of the countries in Africa scoring zero, thus reflecting a big gap. **Investment in research** scored 2.7, one of the lowest average scores. Globally, 44 percent of the countries scored 2 or less, while very few countries in Europe, Asia, and the South West Pacific scored 5. Clearly, at the global level and with few exceptions, the investment in research is not commensurate with the development of aquaculture. **Investment in infrastructure** scored 3.1 and although 9 percent of countries scored 1 or 0.76 percent of the countries scores distributed quite evenly between 2 and 4 reflecting wide variability. Indeed, Africa, Latin America, and the Near East scored close to 2 while the other regions scored close to 3.
46. Aquaculture **integration into coastal and watershed** planning and management had very low average global scores; 2.7 and 2.6 respectively, although 7 and 9 percent of the countries respectively described these questions as non-applicable. Thirty eight percent of countries in both cases scored 2 or less but few countries in Asia and all those in Northern America and South West Pacific scored 4 or 5. Nevertheless, at the global level and especially in regions where aquaculture is a new sector, the scores reflect a clear need for improvement.
47. The lowest average scores under SM in all regions were those for the existence of **incentives to restoration** of damaged habitats, with a global average of 1.5, indicating such incentives are at large not in place. Twenty two percent of countries considered this question as non-applicable.
48. The countries reporting in South West Pacific and in Northern America scored 4 or 5 for most the support mechanisms except for research investment.

Enhancing mechanisms (ENM) that would improve the effectiveness of essential management measures and supporting mechanisms.

49. These “enhancing mechanisms” are measures that are not essential but are “good to have”. Having them tends to make the implementation of the aquaculture policy and plan less costly and more effective. These mechanisms are intended to underscore the social role of aquaculture and also the relevance of the support to farmers, especially small farmers, to facilitate the implementation of regulations and the fulfillment of the aquaculture plan.

50. As previously mentioned this part of the questionnaire had, overall, the lowest scores.

51. The question regarding existence of mechanisms to ensure that **livelihoods of local communities are benefitted** and not adversely impacted when developing aquaculture had a global score of 3.1, and 52 percent of the countries scored between 3 and 4, reflecting overall positive situation but there was relevant variability between regions. While 56 percent of the countries in Asia scored 4 or 5, 47 percent of LAC countries scored 2 or less; thus reflecting an important need for improvement in this area.

52. The availability of **soft credits for farmers** had an average global low score of 2.5, and 61 percent of the countries scored between 2 and 3. Twenty five percent of countries in Africa, 16 percent in Europe, 20 percent in LAC, and 20 percent in Near East scored 0 or 1; thus indicating the near absence of such a mechanism. This is therefore a subject of high priority for improvement and is possibly being underestimated as an important mechanism in the development of aquaculture plans.

53. The implementation of voluntary **certification systems** had a global score of 2.4 and scoring was rather spread; thus 31 percent of the countries scored 0 or 1, mainly in Africa, LAC, and the Near East, whilst 32 percent scored 3 or 5, mostly in the other regions; although there was also variability within regions, for example 14 percent of countries in Asia scored 0. This is also a mechanism that deserves attention with particular focus on the newest aquaculture regions and countries.

54. The existence and availability of commercial **insurance for farmers** also had a very low global average score of 2.2. In fact, 25 percent of the countries scored 0, and 30 percent scored 1 or 2. Few countries scored 4 or 5 indicating, as suggested in the guidelines for the answers, that commercial insurance is also available to small farmers. Distribution of scores reflected wide variability within regions and more than 50 percent of the countries in LAC, Africa, and Near East have very limited or no access to any type of insurance; 28 percent of countries in Asia and 20 percent of countries in Europe are in the same situation.

55. The existence of government **assistance schemes in case of disasters** scored 1.9, the lowest scored item. In this case, 55 percent of the countries scored 2 or less, and only 25 percent scored 4 or 5. Thirty three percent of countries in Africa, 47 in LAC, and 80 percent of those in the Near East scored 0, indicating a total absence of such mechanisms. Such scores suggest a relevant gap considering that often these mechanisms are present in agriculture. Current threats from climate change and global economic crisis could be relevant enough to consider assistance, especially for small farmers. It is important to mention that the guidance provided by the questionnaire considers assistance to face diseases or payments for lost production when the outbreaks are not the direct responsibility of the farmer’s management.

The level and degree of capacity to address the essential management measures, supporting and enhancing mechanisms

56. In this section the questionnaire attempted to assess the capacity of the State, including government, academy, and private sector, to develop knowledge, information, technology and advice and promote their adoption to support the development, enforcement, implementation, and monitoring and evaluation of the measures reported. As it is now of growing importance, questions on capacity to deal with disasters and climate change were also included.

57. The average global score for the **capacity of the national research system** to address aquaculture needs was 3.2, with 62 percent of the countries scoring 3 or 4; however the situation is not very homogenous since 40 percent of countries in Africa and 41 percent in Latin America scored 2 or

less. The global average score for **Extension capacity** was 3.1, and the distribution of the global scores was very similar to that for research.

58. Regarding specific capacities of the State, to deal with; environmental issues, food safety, aquatic animal health, conflicts resolution, preparedness for disasters and preparedness/adaptation to climate change, the global average scores were 3.7, 3.7, 3.6, 3, 2.9, 2.5. The scoring for the first three was consistent with the scoring for the related regulations in the EMM part discussed in the paras 23 to 25 above; while the latter three deserve more careful scrutiny.

59. Regarding **conflicts resolution**, 62 percent of the countries scored 3 or 4, thus indicating a reasonable degree of compliance although with some interregional variability as 32 percent of the countries scored 2 or less.

60. **Preparedness for disasters** scored low and showed a very variable situation within and between regions, with a number of countries (42 percent), scoring 0 or 1; therefore indicating the absence or very limited preparedness. This situation is consistent with the low access to insurance, lack of assistance schemes and access to credits indicated above, especially for small farmers.

61. Specific preparedness and **adaptation to climate change** scored even lower, with a very similar pattern to that described above for the general preparedness. More than 60 percent of the countries in Africa, Latin America, and the Near East; 36 percent of the countries in Europe, and 14 percent of the countries in Asia scored 2 or less. Such a global pattern calls for more attention to improve climate change preparedness and adaptation in the sector.

EVALUATION OF FAO ASSISTANCE

62. Generally, the responses and scoring for FAO assistance were lower than those for the provisions of the questionnaire. Only 49 Members of the 67 provided scores for FAO assistance on the ENM, 46 Members provided scores for assistance to the SM and 44 to the ENM. Other Members either did not provide a score or considered it as non applicable.

63. The average global scores for EMM, SP and ENM were 2.1, 1.9 and 1.6. The detailed analysis by specific measures indicates that the largest average scores were: 3 for FAO assistance regarding food safety, 2.8 for assistance regarding movement of live animals, 2.7 regarding the use of alien species, 2.6 aquaculture policy, 2.5 regarding consultation with stakeholders and 2.5 aquaculture planning. Forty- seven percent of the responding Members scored 4 or 5 for the assistance regarding food safety, 43 percent for the assistance regarding use of alien species, 40 percent regarding policy.

64. On the other extreme FAO assistance regarding integration of aquaculture into watershed management, to enhance/support credit systems, research investment, assistance schemes in case of disasters, restoration of damaged habitats and aquaculture insurance got the lowest scores, 1.7 to 1.2. In all these cases more than 50 percent of the countries scored 0 or 1 in all regions.

65. However for several measures, average scoring does not provide adequate information about FAO assistance since there is often a bimodal pattern, that is, a large proportion of the scores are under 0 or 1 and under 4 or 5. The highest average score for FAO assistance (all measures included) was in Asia, 3.1; followed by Africa, 2.7; LAC 2.3, Near East 1.9, South West Pacific 1.8 and Europe 0.9.

66. Being this the first attempt to evaluate FAO assistance in improving compliance with the Code within the same Members reporting instrument it is not possible to reach a clear conclusion but there are some patterns that the secretariat should consider to improve FAO effectiveness and better planning for results based management.

SUMMARY OF THE AQUACULTURE AND CULTURE BASED FISHERIES COMPLIANCE WITH THE RELEVANT PROVISIONS OF THE CODE

67. Global responses indicate a good overall situation regarding essential management measures including aquaculture policy, planning and regulation; although there are regional and intraregional

differences most likely related to the different development status of the sector. However, regional scores could also be biased by the size of the sample per region and by the specific situation of the countries responding. Supporting and enhancing mechanisms are also in place but to a lesser degree of implementation than the essential management measures suggesting a need to review the structure of the questionnaire, but most likely indicating a need to improving the consistency of the responses.

68. In general, this first trial of the new aquaculture questionnaire provides a good perspective of the global and regional situation of the sector. The analysis of the responses allows the identification of relevant regional and global gaps and the need for improvement. The responses generated a data base that provides FAO with relevant information from individual countries and regions; this should allow better devising and will improve assistance.

69. Consequently, Member Countries can benefit by creating their own data base and self-assessment tools based on this questionnaire.

QUALITY OF THE REPORTS AND FURTHER IMPROVING THE REPORTING

70. Although the result of this first trial is very positive, and there was an improved response rate compared to the general CCRF questionnaire, there is a clear need to further improve reporting, not only to get responses from important aquaculture producing countries that are missing now, but also from countries where the sector is new. The information provided by the former will improve the global understanding of the compliance with the Code, and will improve the understanding of regional needs, while the information from the latter will improve the opportunity for these countries to get more targeted assistance.

71. Many countries provided what appears to be a very honest score and this can be assessed by the consistency of the scoring for the different parts of the questionnaire and very often by their comments.¹³ In a few cases however there seemed to be an overrating of some measures, for example rating policy and planning as 4 or 5 while providing lower scores in other parts indirectly suggesting weaker planning or deficient policies.

72. A more accurate scoring can also be achieved by i) clarifying some questions and improving guidance and the secretariat will review and improve the whole instrument after the second trial, ii) more extensive training on the use of the instrument, the relevance of implementing the code and reporting and iii) improving the reporting system through a web base platform.

73. The secretariat is currently attempting to further improve the mechanics of the reporting system. Since the General CCRF questionnaire is evolving towards a web-based platform, which will allow entering the responses directly on-line, the Secretariat considers as necessary and convenient to put the aquaculture questionnaire on the same web-based platform. This could allow modifying and simplifying the general questionnaire and avoiding overlaps and redundancies with the aquaculture one. Thus, the responses to the latter will be automatically summarized and entered in the general reporting system where appropriate.

74. Measures suggested in the two previous paragraphs along with the advanced identification of a focal point to lead the response team and provide the answers in the web should improve the reporting rates and the quality of the reports.

¹³ A couple of examples without identifying the countries are provided in the Background document.