Food and Agriculture Organization of the United Nations

NFIAP/R1472 (En)

FAO
Fisheries and
Aquaculture Report

ISSN 2070-6987

Report of the

Workshop on Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire

Bangkok, Thailand, 8–10 May 2024

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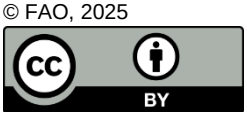
Required citation:
FAO. 2025. *Report of the Workshop on Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire. Bangkok, Thailand, 8–10 May 2024.* FAO Fisheries and Aquaculture Report, No.1472. Rome. https://doi.org/10.4060/cd4319en

ISSN 2070-6987 [Print]
ISSN 2707-546X [Online]
ISBN 978-92-5-139622-3



PREPARATION OF THIS DOCUMENT

This document summarizes the presentations, discussions, conclusions and recommendations from the FAO Expert Workshop on Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire. The workshop was organized and coordinated by the FAO Fisheries and Aquaculture Division, with logistical support from the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) through a Letter of Agreement between the two institutions.

ABSTRACT

The Workshop on Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire was held in Bangkok, Thailand, from 8 to 10 May 2024. Twenty-four experts from fifteen countries, including Australia, Bangladesh, Brazil, Canada, Chile, Egypt, Jamaica, Nigeria, Oman, the Philippines, United Republic of Tanzania, Thailand, Türkiye, Tunisia, and Viet Nam, participated in the event.

Since the endorsement of the FAO Code of Conduct for Responsible Fisheries (CCRF) in 1995, aquaculture has grown significantly, emerging as a vital source of food and employment. The original CCRF Questionnaire, established in 2008, was designed to help FAO Members assess implementation progress. In light of technological advances and the introduction of the FAO Guidelines for Sustainable Aquaculture (GSA), this workshop aimed to review and update the CCRF-Aquaculture Questionnaire to ensure its continued relevance and alignment with the Sustainable Development Goals (SDGs).

The main objectives of the workshop were to: (i) analyse the current CCRF-Aquaculture Questionnaire and identify areas for improvement; (ii) propose revisions for a new draft Questionnaire; and (iii) recommend strategies to enhance FAO Member participation in completing the Questionnaire. The experts' inputs will be taken forward into the final draft of the CCRF-AQ Questionnaire.

CONTENTS

ACKNOWLEDGEMENTS

The experts are acknowledged for their efforts, contributions and active participation during the workshop discussions. The presenters and facilitators, Mr Matthias Halwart, Mr Pierre Murekezi, Mr Arthur James Fenton, Mr Supawat Komolmarl, Mr Pongpat Boonchuwong and Ms Juli-Anne Brit Royes Russo were critical to delivery of the workshop and Ms Danielle Rizcallah, Ms Teri Neer and Mr F.A.M. Zakirul Huq provided indispensable support to its organization and delivery. Acknowledgment and gratitude are extended to the FAO Regional Office for Asia and the Pacific, especially Ms Tipparat Pongthanapanich, for her invaluable support in coordinating and executing the workshop.

ABBREVIATIONS

AMR	antimicrobial resistance
AqGR	Aquatic Genetic Resources for Food and Agriculture
AVC	aquaculture value chain
BMPs	better management practices
CCRF	Code of Conduct for Responsible Fisheries
CIRDAP	Centre on Integrated Rural Development for Asia and the Pacific
COFI	Committee on Fisheries (FAO)
COFI:AQ	Sub-Committee on Aquaculture of the FAO Committee on Fisheries
EAA	ecosystem approach to aquaculture
FAO	Food and Agriculture Organization of the United Nations
GSA	Guidelines for Sustainable Aquaculture
SDG	Sustainable Development Goal
WTO	World Trade Organization

BACKGROUND

1. Since the FAO Code of Conduct for Responsible Fisheries (CCRF) was endorsed in 1995, the fisheries and aquaculture sectors have undergone significant transformations, driven primarily by increasing global demand for aquatic food. Aquaculture has emerged as the fastest-growing food production sector, playing an essential role in global food security and economic development.

2. To support implementation, FAO began a participatory process to design a questionnaire for assessing the implementation of the CCRF. This main questionnaire has been used by FAO Members since 2013 to report on the performance of CCRF implementation, in terms of fisheries management, aquaculture and fish trade separately. Considering the positive results of the web-based reporting system, which practically doubled FAO Member responses, the questionnaires on the implementation of Articles 9 and 11 of the Code were transferred to the platform in 2014, in preparation for the 8th Session of the COFI Sub-Committee on Aquaculture (COFI:AQ) and the 15th Session of COFI Sub-Committee on Fish Trade.

3. In 2015, FAO launched the web-based platform for the CCRF-AQ Questionnaire which contains 53 questions embedded in five parts. During the 11th and 12th COFI:AQ Sessions, Members recommended that the CCRF Aquaculture Questionnaire should be updated and revised to better fit the technology innovation, sector development, as well as the implementation of the newly developed FAO Guidelines for Sustainable Aquaculture (GSA), which was endorsed by members during the 12th Session of COFI:AQ in Mexico.

4. In response to the Sub-Committee's recommendation, FAO, with logistical support from the Centre for Integrated Rural Development in Asia-Pacific (CIRDAP), organized the FAO Expert Workshop on Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire.

5. The objectives of the workshop are to: 1) analyze the current version and provide modification suggestions; 2) discuss the proposed revision of the Draft new version CCRF-AQ Questionnaire; and 3) recommend better ways of improving the level of participation of FAO Members in the CCRF-AQ Questionnaire.

OPENING OF THE WORKSHOP

6. The workshop began with participant introductions (see Appendix 1 for the attendance list). Mr Cherdsak Virapat, Director-General of CIRDAP, welcomed participants to the Workshop on Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire. He emphasized the importance of diverse experts' contributions in enhancing the questionnaire to improve aquaculture governance.

7. Mr Prapan Leepayakhun, Deputy Director-General of Thailand's Department of Fisheries, extended a warm welcome on behalf of the Thai Government. He highlighted the workshop's objectives: i) to review the CCRF-AQ Questionnaire; ii) align it with the GSA; and iii) address gaps and opportunities to monitor GSA elements. Mr Leepayakhun wished participants fruitful discussions and successful outcomes.

8. Mr Matthias Halwart, representing FAO, formally opened the workshop by emphasizing its mission to advance global aquaculture practices through collaborative dialogue. Reflecting on the significant growth of fisheries and aquaculture since the FAO Code's inception in 1995, he underscored aquaculture's essential role in global food security and economic development. Mr Halwart recognized the evolving challenges in the sector, highlighting the need for adaptive governance and updated resources, such as the CCRF-AQ Questionnaire, to address these changes effectively. He further

stressed the importance of aligning the questionnaire with the GSA and integrating recommendations from COFI:AQ.

9. Mr Matthias Halwart reiterated the key objectives of the workshop, which included analysing the current questionnaire, proposing updates to incorporate recent sectoral advancements and align with sustainable development goals, and fostering greater engagement among FAO Members. He expressed confidence in the workshop's ability to drive innovation and advance responsible aquaculture practices globally. In his closing remarks, Mr Halwart thanked the Government of Thailand for hosting the workshop and acknowledged CIRDAP for their invaluable support. He urged participants to collaborate towards achieving a more sustainable and equitable future for global aquaculture (See Appendix 2 for full remarks).

ADOPTION OF THE AGENDA

10. The agenda adopted without any amendments and is attached as Appendix 3.

PRESENTATIONS

Presentation on objectives, background and expected results

11. Mr Pongpat Boonchuwong provided an overview of the workshop's background, objectives and expected outcomes. He explained that, since the endorsement of the CCRF, aquaculture has experienced significant transformations driven by the rising demand and consumption of aquatic food. FAO initiated a participatory process to develop a questionnaire for assessing CCRF implementation, supported by the GSA. The workshop aimed to review the questionnaire, enhance its clarity, align it with the GSA, and identify gaps and opportunities for monitoring GSA implementation. The expected outcome was a revised draft questionnaire to better serve Members' needs.

Discussion on recommendations for improving the level of participation of FAO Members in the CCRF-Aquaculture Questionnaire

12. Mr Murekezi provided an overview of the evolution of the CCRF-AQ Questionnaire, noting its adoption in 2013 for CCRF implementation reporting. He highlighted the platform's expansion in 2015 to include the CCRF-AQ Questionnaire and presented participation statistics: a 36 percent response rate in 2015, increasing to 40 percent in 2017, peaking at 57 percent in 2019, but declining to 37 percent in 2021. Mr Murekezi emphasized this significant drop in participation since 2019, pointing to challenges in maintaining consistent member engagement over the years.

13. Referring to COFI:AQ recommendations, Mr Murekezi noted the proposal to nominate National Focal Points to maintain regular communication with FAO on the CCRF-AQ Questionnaire and to update the questionnaire to incorporate emerging issues in alignment with the GSA. He informed experts about FAO's ongoing efforts to implement these recommendations, including requests for Members to nominate national focal points to strengthen engagement and improve response rates. Mr Murekezi also presented the proposed restructuring of the CCRF-AQ Questionnaire, reorganizing it into six sections based on the GSA framework.

14. Participants also discussed exploring alternative ways to improve member response rates, such as utilizing informal communication channels alongside formal ones to ensure member awareness about the CCRF-AQ and its significance. The Workshop welcomed the proposed revision of the CCRF-AQ Questionnaire based on the GSA structure. The meeting agreed to improve the CCRF-AQ Questionnaire according to the structure and composition of GSA.

Presentation of the current structure of the CCRF-Aquaculture Questionnaire and suggestions on its possible improvement and revision of Sections I-VI

15. Representing the CIRDAP Experts Team, Mr Supawat Komolmarl presented the current structure of the CCRF-AQ Questionnaire and provided suggestions for its enhancement. He also reviewed the various sections of the GSA, conducting a comparative analysis between the GSA and the CCRF-AQ Questionnaire for the illustration of the similarity and gaps to better guide experts in the revision of the Questionnaire.

Plenary discussion and conclusion

16. The Secretariat asked participants to review the questionnaire section by section, using the GSA structure as a framework and change question in yes or no questions where applicable. Facilitated by the representative of Canada, Mr Arthur James Fenton, the workshop discussions resulted in the following six revised sections for the CCRF-AQ Questionnaire:

Section I: General Aquaculture: Performance, Trends and Challenges

17. This section contains four questions aimed at assessing the performance, trends, and challenges of the aquaculture sector.

Section II: Governance and Planning

18. This section includes four questions focused on governance frameworks, stakeholder participation, and spatial planning for aquaculture development.

Section III: Sustainable Resource Use, Ecosystem and Farm Management

19. This section is organized into six subsections covering sustainable resource and ecosystem management, aquaculture-agriculture integration, conservation of aquatic biodiversity, genetic resource management, sustainable seed supply, sustainable feed, biosecurity, and animal welfare. It also includes strategies for addressing climate change, natural disasters, pollution, and pandemics. A total of thirty-three questions addresses these topics.

Section IV: Social Responsibility, Decent Work, and Gender Equality

20. This section is divided into three subsections with eight questions focusing on social responsibility, decent work, youth empowerment, and gender equality and women's empowerment in aquaculture.

Section V: Value Chains, Market Access and Trade

21. This section consists of two subsections covering sustainable aquaculture value chains and transparent and predictable market requirements. Six questions address the promotion of sustainable value chains, transparency in market requirements, and circular economy practices.

Section VI: Mechanisms and Services Required to Support Sustainable Aquaculture Development

22. Divided into four subsections (Funding and Financing, Research and Innovation, Communication, and Capacity Development), this section contains fifteen questions. These focus on key support mechanisms for sustainable policy implementation.

23. Consensus was reached among the workshop participants regarding the proposed changes. Key revisions included replacing the 0−5 ranking system with Yes/No questions accompanied by follow-up checkboxes for elements of the newly introduced GSA. These changes aim to ensure that the questionnaire aligns more closely with the GSA and effectively addresses topics of interest, particularly by enabling better comparisons of regulatory regimes across jurisdictions.

Conclusions and the way forward

24. During final session of the workshop, Ms Juli-Anne Brit Royes Russo summarized the main contributions and recommendations provided by experts the FAO Questionnaire on the Implementation of the Code of Conduct for Responsible Fisheries – Implementation of Article 9. These recommendations and way forwards included:

25. Distributing the revised draft CCRF-AQ Questionnaire and its manual to national focal points for review.

26. Exploring informal communication channels to raise Member awareness about the questionnaire's significance.

27. Collaborating with regional fisheries and aquaculture organizations as channels to disseminate information about CCRF-AQ and encourage participation among Members and all aquaculture stakeholders.

28. Increasing transparency by considering the disclosure of non-responsive Member names.

29. Raising awareness about the CCRF-AQ Questionnaire through dedicated meetings in connection with partner organizations such as the World Aquaculture Society to prompt timely completion among 32 Members.

30. FAO should consider developing a comprehensive training program for National Focal Points (NFPs) on the effective compilation of the Questionnaire. This program should be delivered in two formats: an in-person training course and an online (e-learning) module. Using a "Training of Trainers" approach, the program would enable NFPs not only to master the questionnaire compilation process but also to train others within their respective countries or regions. The ultimate objective is to establish a well-coordinated national team, led by the trained NFP, responsible for responding to the CCRF-AQ Questionnaire effectively and sustainably.

31. CIRDAP, under the FAO Letter of Agreement (LoA), will draft the manual for the FAO Questionnaire on the Implementation of the Code of Conduct for Responsible Fisheries, with a focus on Article 9: Aquaculture.

APPENDIX 1

List of participants

EXPERTS

- Australia
- Brazil
- Canada
- Chile
- Egypt
- Jamaica
- Nigeria
- Oman
- Philippines
- Thailand
- Tunisia
- Türkiye
- United Republic of Tanzania
- Viet Nam

- **CIRDAP**
- **NACA**
- **FAO**

APPENDIX 2

Opening statements

Welcome address by Mr Cherdsak Virapat, Director General of CIRDAP

Deputy Director General, Thailand's Department of Fisheries, Mr Praphan Leepayakhun
Mr Matthias Halwart, Team Leader Sustainable Aquaculture – Global & Regional Processes, Technical Secretary – COFI Sub-Committee on Aquaculture, Food and Agriculture Organization of the United Nations (FAO)
Distinguished Delegates, Experts
CIRDAP Colleagues
Ladies and Gentlemen

Good morning,

It is indeed my great honour and pleasure to welcome each of you to the Global Consultative Workshop to discuss on the revised draft Code of Conduct for Responsible Fisheries – CCRF – Aquaculture Questionnaire organized by FAO in collaboration with the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP). As the host country, I would like to extend my sincere thanks to the Department of Fisheries, Ministry of Agriculture and Cooperatives. It is always my pleasure to visit my home country, Thailand.

We intended to select a venue right in the middle of Bangkok for you. The Siam Square is a popular shopping and entertainment district located in Bangkok, Thailand's heart of the Siam area. It is known for its vibrant and youthful atmosphere and is one of the city's major retail and entertainment hubs. The nearby landmarks are the MBK and Siam Paragon. But you will need to work first and shop later.

On Friday 10 May, it will be a government holiday when the Thai Government organized the Royal Ploughing Ceremony to celebrate the beginning of the rice planting season.

This ceremony provides us with some predictions. The prediction ceremony is divided into two parts.

In the first part, Phra Ya Raek Na will randomly select one of the three pieces of cloth. If a one metre-long cloth is picked, it is predicted that there will be plenty of water, highland rice fields will be successful while lowland rice fields may sustain damage and will not give the best yield. If he picks a 1.25 metre-long cloth, the prediction will be entirely positive. There will be the right amount of rainfall. The rice yield will be optimal with plenty of fruit and meat. If a 1.5 metre-long cloth is chosen, the prediction will be opposite to the first prediction in that the water will not be abundant but still enough for lowland plantation while highland plantation will suffer to a certain degree.

In the second part of the ceremony, seven kinds of food are presented to the oxen. The prediction will be drawn from the food that the oxen eat. If they eat rice or corn, it is the sign of abundant rice and fruit. If they eat nuts or sesame, then fruit and food in general will be plentiful. If water or grass is eaten, it is said that there will be enough water and people will not suffer the shortage of rice, fruit, meat, and food. Lastly, if the oxen drink alcohol, it means that overseas trade and transportation will be smooth and the economy prosperous.

So, let us see what will happen?

Let me now get back to our meeting. As you know, at this meeting, we are gathering with numbers of experts around the globe to present and to discuss the revised draft CCRF-AQ questionnaire and to share our ideas for improving it.

Ladies and Gentlemen, I hope you have a very constructive three-day workshop and enjoy your stay in Bangkok. Thank you.

Welcome address by Mr Prapan Leepayakhun, Deputy Director General, Department of Fisheries, Thailand

Mr Matthias Halwart, FAO headquarters
Mr CherdsakVirapat, Director General of CIRDAP
Distinguished Delegates, Experts
Ladies and Gentlemen

On behalf of Thailand's Department of Fisheries, it gives me great honour and pleasure to welcome you to the Global workshop to discuss on the revised draft Code of Conduct for Responsible Fisheries – CCRF-Aquaculture Questionnaire organized through collaboration between FAO and the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP).

The FAO Code of Conduct for Responsible Fisheries (CCRF) was endorsed in 1995, the fisheries and aquaculture sector has changed significantly, urged by a constantly growing demand and consumption of aquatic food, and with aquaculture becoming an increasingly important source of food. Adopted almost 30 years ago by the International Conference on Responsible Fishing, the Code of Conduct for Responsible Fisheries remains the reference for national and international efforts to ensure sustainable fisheries and aquaculture. The Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources in harmony with the environment.

In 2017, FAO Members recommended that FAO develop global Guidelines for Sustainable Aquaculture (GSA) to guide government authorities and policymakers in their efforts of promoting the implementation of the CCRF and enable aquaculture to play a prominent role in achieving the 2030 Agenda for Sustainable Development. In response to this request, the draft GSA was prepared following extensive consultations with experts and Members, and the content was approved by the 12th Session of the Sub-Committee on Aquaculture.

The Sub-Committee recognized that the GSA complement and support FAO's efforts to back the implementation of the Code of Conduct for Responsible Fisheries and the achievement of Sustainable Development Goals and constitutes a valuable guide for achieving the sustainable development of the aquaculture sector. Additionally, the Sub-Committee recognized the imperative of updating the CCRF Questionnaire by to incorporate emerging and strategic issues. It emphasized the importance of maintaining the core of the Questionnaire true to the topics covered by the CCRF.

I am glad to learn that FAO in collaboration with the Centre on Integrated Rural Development for Asia, and the Pacific (CIRDAP) have checked and carried out analysis of existing CCRF Aquaculture Questionnaire to improve the clarity of some survey questions and to ensure it alignment with GSA and develop background document identifying gaps in the Questionnaire and opportunities to monitor elements of the GSA. The objectives of the workshop are to discuss on the revised draft CCRF-AQ Questionnaire. To present and discuss on the revised CCRF-Aquaculture questionnaire and to exchange ideas on the bast way of improving the level of participation of members in the CCRF survey.

I hope that the Expert Consultation will provide a great opportunity for us in sharing ideas and experiences and recommending appropriate policy guidance, means and implementation on future activities concerning the Code of Conduct for Responsible Fisheries.

Finally, I wish the meeting a great success. Thank you

Opening remarks by Mr Matthias Halwart, Senior Aquaculture Officer, Sustainable Aquaculture - Global & Regional Processes, FAO

Deputy Director General, Thailand's Department of Fisheries, Mr Praphan Leepayakhun
Mr Cherdsak Virapat, Director General of CIRDAP
Distinguished Delegates, Experts

It is my honour and privilege to participate in this opening ceremony of the Expert Workshop on Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire. Over the course of the next two days, we will engage in critical discussions aimed at enhancing the effectiveness and relevance of this essential tool in promoting responsible aquaculture practices worldwide.

As we gather here in the vibrant city of Bangkok, Thailand, it is essential to reflect on the evolution of fisheries and aquaculture since the inception of the FAO Code of Conduct for Responsible Fisheries in 1995. The aquaculture sector, in particular, has experienced remarkable growth, emerging as a key contributor to global food security and economic development. However, with this growth come new challenges and complexities that necessitate continuous adaptation and innovation in our approaches to governance and management.

The CCRF-Aquaculture Questionnaire has served as a vital instrument for reporting the implementation of the Code of Conduct for Responsible Fisheries since its inception. Yet, as aquaculture continue to develop, it is imperative that our reporting tools evolve as well. The recommendations from the COFI:AQ and the need to align with the FAO Guidelines for Sustainable Aquaculture underscore the importance of revising and updating the questionnaire to ensure its continued relevance and effectiveness.

During this workshop, we have set ambitious yet achievable objectives. We aim to analyse the current version of the questionnaire, identify areas for improvement, and propose revisions that align with the latest developments in the aquaculture sector and the broader goals of sustainable development. Furthermore, we will explore strategies to enhance the participation of FAO Members in the questionnaire process, recognizing the critical role of stakeholder engagement in promoting transparency and accountability.

I am confident that the expertise and experience gathered in this room will lead to fruitful discussions and innovative solutions. Your insights and recommendations will not only shape the future direction of the CCRF-AQ but also contribute to the broader efforts to promote responsible aquaculture practices worldwide.

I would like to express my gratitude to the Government of Thailand for hosting this workshop and to the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) for their invaluable technical and logistic support.

In closing, I wish you all a productive and enriching experience during this workshop. Let us work together with dedication and commitment to ensure that our collective efforts contribute to a more sustainable and equitable future for aquaculture.

Thank you.

APPENDIX 3

Agenda

Date and Time	Details Programme
Tuesday, 7 May	Arrival of Participants
Wednesday, 8 May	Workshop Day-1
08.30–09.00	Registration
09.00–10.30	Opening Session
	Welcome address by Mr Cherdsak Virapat, Director-General of CIRDAP Welcome address by Director-General, Department of Fisheries, Thailand Opening remarks by Mr Matthias Halwart and Ms Tipparat Pongthanapanich, FAO Workshop Introduction by Messrs Pongpat Boonchuwong and Pierre Murekezi Participant introductions Group photo
10.30–11.00	Coffee Break
11.00–12.30	Discussion on recommendations for improving the level of participation of FAO Members in the CCRF-Aquaculture Questionnaire
12.30–14.00	Lunch
14.00–15.30	Presentation of the current structure of the CCRF-Aquaculture Questionnaire and suggestions on its possible improvement
15.30–16.00	Coffee Break
16.00–17.30	Presentation, discussion, and revision of Part 1 of the CCRF-Aquaculture Questionnaire
19.00–21.00	Welcome Reception/Dinner
Thursday, 9 May	Workshop Day-2
09.00–10.30	Presentation, discussion, and revision of Part 2 of the CCRF-Aquaculture Questionnaire
10.30–11.00	Coffee Break
11.00–12.30	Presentation, discussion, and revision of Part 2 of the CCRF-Aquaculture Questionnaire (conclusion)
12.30–14.00	Lunch
14.00–15.30	Presentation, discussion, and revision of Part 3 of the CCRF-Aquaculture Questionnaire
15.30–16.00	Coffee Break
16.00–17.30	Presentation, discussion, and revision of Part 3 of the CCRF-Aquaculture Questionnaire (conclusion)
19.00–21.00	Dinner
Friday, 10 May	Workshop Day-3
09.00–10.30	Presentation, discussion, and revision of Parts 4 and 5 of the CCRF-Aquaculture Questionnaire
10.30–11.00	Coffee Break
11.00–12.30	Presentation, discussion, and revision of Parts 6 and 7 of the CCRF-Aquaculture Questionnaire
12.30–14.00	Lunch
14.00–15.30	Presentation of the results of the discussion
15.30–16.00	Coffee Break
16.00–17.00	Closing Session Closing Address by Mr Matthias Halwart and Ms Tipparat Pongthanapanich, FAO
19.00–21.00	Dinner
Saturday, 11 May	Departure of Participants

APPENDIX 4

CCRF-AQ Questionnaire: Revised Version from the Bangkok Expert Workshop

FAO Questionnaire on the Implementation of the Code of Conduct for Responsible Fisheries - Implementation of article 9: Aquaculture

Item	Explanation
Section I: General Aquaculture: Performance, Trends and Challenges	**These questions should help assess different aspects of the aquaculture sector's performance, trends, and challenges, with answers rated on a scale from 1 to 5**
1.1 What is the average annual growth rate of the national aquaculture sector over the last two years?	**Is data available?** • Yes • No **If Yes:** 1: Less than 2% 2: Between 2% and 4% 3: Between 4% and 6% 4: Between 6% and 8% 5: more than 8%
1.2 What is the percentage of the country's total aquaculture (not including algae) production, of the overall fisheries and aquaculture production?	**Is data available?** • Yes • No **If Yes:** 1: Less than 20% 2: Between 20% and 30% 3: Between 30% and 40% 4: Between 40% and 50% 5: more than 50%
1.3 What is the percentage of the country's total aquatic plant (algae) production, of the overall fisheries and aquaculture production?	**Is data available?** • Yes • No **If Yes:** 1: Less than 20% 2: Between 20% and 30% 3: Between 30% and 40% 4: Between 40% and 50% 5: More than 50%
1.4 What is the gender makeup of the aquaculture industry?	**Is data available?** • Yes • No **If Yes:** 1. Less than 15% 2. 15–40% 3. 40–65% 4. 65–80% 5. Greater than 80%
1.5 What is the primary driver behind the growth of the aquaculture sector?	1: Declining wild fish stocks 2: Increasing consumer demand for seafood 3: Technological advancements in aquaculture practices 4: Government subsidies and incentives 5: Growing recognition of aquaculture's role in food security and economic development

Item	Explanation
Section II: Governance and Planning	**Aquaculture governance frameworks include all sector instruments and how aquaculture stakeholders participate in their development and implementation** **Proper planning and management of resource use, including spatial planning. This enables countries to select the spatial area for developing their aquaculture, and the areas that must be free from aquaculture**
2.1 Does the country have an Aquaculture Policy?	• Yes • No **If Yes:** 1) Aquaculture is part of fisheries policy. 2) Aquaculture is part of agricultural policy. 3) Aquaculture has its own specific aquaculture policy.
2.2 Does the country have an Aquaculture Development Plan?	• Yes • No **If Yes:** 1) Promote a holistic food system perspective, integrating the development of sustainable aquaculture, including upstream and downstream sectors (e.g. seed, feed, farming technology, processing, logistic, marketing, branding and digital infrastructure) with other sectors using land, water, aquatic resources and maritime space to develop joint objectives and integrated actions across these sectors. 2) Integrate the expansion of aquaculture into public policies for food systems and economic development to enable better planning and use of public resources including for investment in basic infrastructure across sectors to promote economies of scale that minimize running costs and render aquaculture operations competitive. 3) Adopt a clear, transparent, equitable and inclusive process to designate suitable areas for aquaculture and sites within each area. 4) Pay special attention to the small-scale sector and support the establishment of cluster farming in suitable areas to enhance technical skills and value chain development through the application of good farming practices, continuous on-the job training, marketing facilities and biosecurity practices. 5) Where appropriate, explore opportunities for offshore aquaculture development, within national jurisdiction, and development of an adequate regulatory framework and support for research to address engineering and other challenges. 6) None of the above.
2.3 Does the country have an aquaculture law or regulation?	• Yes • No **If Yes:** 1) Aquaculture is part of fisheries law/act. 2) Aquaculture has its own specific aquaculture law/act.
2.4 Does the country have aquaculture institutional and administrative frameworks?	• Yes • No **If Yes:** 1) Law or regulations designate competent authority or authorities with clearly specified roles and responsibilities to administrate aquaculture. 2) Establish clear and predictable processes, as appropriate, for authorizing or permitting aquaculture activities. 3) Enhance coordination and cooperation among the different authorities and stakeholders.

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.1 Sustainable Resources and Ecosystem Management	Aquaculture is reliant on the services provided by our ecosystems, which are impacted by human activities. It is important to ensure that aquaculture development does not have negative effects on the wider ecosystem by exceeding the environmental carrying capacity.
3.1.1 Has the country developed and implemented national or regional strategies for sustainable use of water, land, genetic resources, and energy and applied the concepts of environmental, and social carrying capacity in aquaculture planning, using environmental impact assessment?	• Yes • No
3.1.2 Has the country implemented programs/projects to conserve, protect, enhance, and restore aquatic ecosystems, and their services, and reduce environmental footprints?	• Yes • No **If Yes:** 1) Development of waste management systems that minimize the environmental footprint of aquaculture activities. 2) Recirculation of water and co-products in the feeding process. 3) Encouragement of energy efficiency and the use of clean/renewable technologies. 4) Prevention and/or mitigation of litter from aquaculture gear. 5) Promotion, support and/or incentivization of restorative aquaculture practices, such as incentive systems for farmers to restore or rehabilitate resources degraded by their aquaculture activities (e.g., mangroves, other forests, salt marshes, abandoned lands, polluted water bodies, degraded soil).
3.1.3 Has the country promoted low-trophic aquaculture species, such as filter-feeding finfish, algae/seaweeds, and bivalve mollusks, that are properly managed to provide ecosystem services, and reduce negative impacts on surrounding ecosystems?	• Yes • No
3.1.4 Does the country have an environmental management and assessment process in place?	• Yes • No **If Yes:** 1) Environmental Impact Assessment (EIA) is required by law to establish or develop an aquaculture facility (farm, hatchery, or an on-farm processing plant). 2) There is good capacity for EIA and monitoring in the aquaculture and/or environment agency. 3) It is strictly enforced.
3.1.5 Does the country have an Environmental monitoring system in place?	• Yes • No **If Yes:** 1) Environmental monitoring is conducted on a regular basis. 2) Environmental monitoring is sporadic.
3.1.6 Does the country set limits on carrying capacity (density and/or biomass [per volume or area] of farmed organisms)?	• Yes • No

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.1.7 Does the country have policies addressing social responsibility and social carrying capacity?	• Yes • No **If Yes:** 1) Consultation with Indigenous communities and ethnic minorities was conducted (if applicable) 2) Strategies and measures for enabling local communities to share in the benefits of aquaculture projects (e.g., infrastructure, tax incentives, royalties, community compensation) are in place 3) Economic impacts and benefits for local communities were considered 4) Local aquaculture ancillary services and the need for enhanced community services were considered 5) Exit strategies and the social and economic implications of unsuccessful aquaculture projects were considered
3.1.8 Does the country have designated allocated zones for aquaculture (AZA) and specific sites within those areas in public or common waterbodies?	• Yes • No
3.1.9 Does the country have regulation for effluent and Water Management systems?	• Yes • No **If Yes:** 1) The regulation establishes standards for managing effluent discharge and water quality. 2) The use of water resources is regulated. 3) The relevant agency has the capacity to monitor, control, and enforce standards. 4) The regulation is effectively implemented and enforced.
3.1.10. Does the country have aquaculture laws or regulations that require the registration or licensing of farms and hatcheries, and are these regulations effectively enforced?	• Yes • No
3.1.11 Does the country develop and disseminate guidance that addresses better management practices (BMPs) for the management and use of aquaculture resources, supported by regular and targeted training?	• Yes • No
3.2 Integration of aquaculture with agriculture and other sectors	Aquaculture can enhance efficiency and sustainability by collaborating with agriculture and other sectors through innovative practices. In coastal areas, integrating aquaculture with tourism or energy creates synergies, while in inland areas, it supports local farming systems, improving food security, biodiversity, and resilience to climate change for poorer communities.

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.2.1 Does the country integrate the aquaculture sector with agriculture and other sectors?	• Yes • No **If Yes:** 1) Promote the integration of aquaculture with agriculture and other sectors by preparing and implementing supportive national policies, regulations and legislation. 2) Promote the integration of aquaculture with fisheries through culture-based fisheries and stock enhancement, especially in seasonal water bodies, while preserving ecosystems and biodiversity. 3) Encourage diversification of food production and income by integrating aquaculture with other systems, such as combined rice and fish farming, aquaponics, and other integrated farming practices. 4) Support research and innovation partnerships particularly innovative. technologies for nutrient recycling and monitoring from aquaculture effluent 5) Recognize aquaculture's role in the social and biophysical interlinkages of food and ecosystems and strengthen the application of participatory processes such as the EAA. 6) Aquaculture is integrated with coastal development and management plans. 7) Aquaculture is integrated with watershed management or land use development plans. 8) Integration of Aquaculture in community development planning.
3.3 Conservation of aquatic biodiversity, genetic resource management, and sustainable seed supply	Sustainable aquaculture development necessitates effective management of genetic resources for both wild and farmed stocks. This management should rely on robust data regarding the status of aquatic genetic resources (AqGR) to ensure their representation in global biodiversity frameworks like the Sustainable Development Goals (SDGs) and the UN Convention on Biodiversity (CBD) Kunming-Montreal Global Biodiversity Framework.

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.3.1 Does the country mainstream conservation and effective management of Aquatic Genetic Resources (AqGR) and biodiversity in aquaculture and in the wild by implementing the initiatives outlined in the Guidelines for Sustainable Aquaculture?	• Yes • No **If Yes:** 1) Implement Global Plan of Action for the Conservation, Sustainable Use and Development of Aquatic Genetic Resources for Food and Agriculture (Global Plan of Action). 2) Implement CBD Kunming-Montreal Global Biodiversity Framework. 3) Implement the Nagoya Protocol on Access to Genetic Resources, and the Fair and Equitable Sharing of Benefits Arising from their Utilization. 4) Strengthen national institutions and adapt, develop or create strategies, policies and legislation to support effective management and monitoring of genetic resources. 5) Apply a precautionary approach based on sound risk assessment and adaptive management to minimize harmful effects of accidental or deliberate introductions and transfers of AqGR (including non-native species and developed farmed types). 6) Raise awareness of the importance of monitoring and managing the genetic status of farmed types, including through the provision of genetic monitoring tools, especially in major seed supply chains supporting large-scale aquaculture production. 7) Support the sustainable use of the genetic resources through adherence to basic principles of genetic management, such as by maintaining adequate effective population size and avoiding uncontrolled hybridization. 8) Develop national registries of AqGR (for farmed types and wild stocks) using tools such as FAO's global information system for aquatic genetic resources (AquaGRIS), as a basis for understanding the status of the AqGR, the specific properties and characteristics of national AqGR, and to enable monitoring of the status of AqGR against specific indicators of progress in enhancing their management.
3.3.2 Does the country recognize and monitor wild stocks and farmed types, while seeking synergies between aquaculture production and ecosystem restoration, applying a precautionary approach, and raising awareness of the importance of monitoring, managing, and promoting long-term selective breeding programs?	• Yes • No
3.3.3 Does the country have legal provisions for access rights to land tenure and water bodies?	• Yes • No

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.3.4 Does the country have policies and plans addressing biodiversity?	• Yes • No **If Yes:** 1) The policies include provisions to minimize the use of alien species. 2) The policies prohibit the destruction of critical habitats, such as mangroves. 3) The policies regulate the use of antibiotics in aquaculture practices. 4) The policies include measures to monitor and mitigate the discharge of effluent into public waters. 5) The policies address other activities that may adversely impact biodiversity.
3.3.5 Does the country have laws that include provisions requiring risk assessments or environmental impact assessments before allowing the stocking or re-stocking of hatchery seed or foreign seed in recipient water bodies?	• Yes • No **If Yes:** 1) The risk and environmental impact assessments are strictly enforced 2) The gap in enforcement is monitored
3.3.6 Does the country develop national policies or strategies for strengthening broodstock domestication, improving supply chains, and maximizing seed production and distribution systems, while integrating biosecurity measures to enhance seed production efficiency?	• Yes • No **If Yes:** 1) The national policies are in place for broodstock domestication. 2) The strategies are implemented to improve supply chains. 3) The seed production and distribution systems are maximized with biosecurity integration.
3.3.7 Does the country have aquaculture laws and policies that contain regulations controlling the use of wild-caught seed for biodiversity reasons?	• Yes • No **If Yes:** 1) Implement laws and regulations that facilitate breeding programs. 2) Promote long-term selective breeding programs through 3) Provide training programs for individuals and organizations involved in breeding 4) Effective engagement with the private sector to enhance collaboration. 5) Research and development support for innovative breeding techniques.
3.4 Sustainable feed	Fed aquaculture species make up about half of global production and are expected to grow to meet rising demand for aquatic food. Sustainable practices are essential, focusing on improving productivity, reducing feed waste, and sourcing ingredients responsibly. Diversifying ingredient sources and enhancing feed management practices are key to ensuring efficiency and sustainability in aquaculture.
3.4.1 Does the country have national or regional strategies for the supply of quality aquaculture feed that promote the use of sustainably sourced ingredients and follow FAO technical guidance for the gradual reduction and improvement of the efficiency of wild fish and fish by-products?	• Yes • No **If Yes:** 1) The strategy sets targets for reducing the use of wild fish and fish by-products 2) The strategy promotes research and development of alternative feed ingredients. 3) The strategy includes monitoring and evaluation mechanisms for implementation

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.4.2 Does the country support investment in research and innovation and promote feeding practices that avoid contamination, as well as the development and utilization of diversified and improved feeds?	• Yes • No **If Yes:** 1) Develop training programs for farmers on improved feeding strategies. 2) Collaborate with industry stakeholders to improve feed quality 3) Any investment to support research and innovation dealing with avoiding contamination together with the utilization of diversified and feed improvement
3.4.3 Does the country promote and develop feeding strategies, feed-management practices, the safe use of feed additives, the development of natural feed ingredients or additives, and the recycling of waste materials in its aquaculture sector?	• Yes • No **If Yes:** 1) Implement sustainable feeding techniques. 2) Optimize feed to minimize waste. 3) Regulate safe feed additives for animal health.
3.4.4 Does the country implement feed management practices that address environmental impact, quality, and food safety issues in aquaculture?	• Yes • No **If Yes:** 1) Have regulation on feed, whether produced locally or imported, which includes provisions on traceability of ingredients, and sets standards and monitoring for feed quality, safety and environmental impact. 2) Support the gradual reduction and improve the efficiency of the use of wild fish stocks as feed. 3) Promote feeding practices that avoid contamination by pathogens, parasites, heavy metals, antimicrobials (antibiotics, parasiticide, antifungal and antiviral medicines), and other substances potentially harmful to humans. 4) Minimize carbon footprint of feed and feeding process (including manufacture). 5) Promote the development and use of sustainably sourced ingredients (from all sources) in feed formulations, striving to achieve affordable, safe and healthy feeds and encouraging an increase in feed performance and reduction in environmental impact.
3.5 Biosecurity and animal welfare	Healthy aquatic organisms are vital for sustainable aquaculture, requiring good farming practices and biosecurity management. Effective protection involves regulations on health and antimicrobial use throughout the production cycle. Implementing biosecurity protocols necessitates a national health strategy, enhanced capacities, and alignment with international standards for biosecurity and animal welfare.
3.5.1 Does the country have developed and formalized national and regional strategies on aquatic organism health, considering the four stages of (PMP/AB), and enhanced national capacities for diagnosis and the development of international standards for health risk prevention and mitigation?	• Yes • No **If Yes:** 1) Strategies have been implemented nationwide. 2) Dedicated teams or institutions oversee the health and biosecurity of aquatic organisms. 3) International partnerships for biosecurity and health management of aquatic organisms have been developed. 4) Strategies are regularly reviewed and updated based on emerging health risks.

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.5.2 Does the country provide training for competent authorities and aquaculture workers, and ensure affordable and easy access to aquatic health support services?	• Yes • No **If Yes:** 1) Competent authorities receive updated knowledge on aquatic health management. 2) Aquaculture workers have affordable access to health support services.
3.5.3 Does the country promote the reduction and monitoring of antimicrobial use, while developing the technical capacity and infrastructure for national action plans on antimicrobial resistance (AMR)?	• Yes • No **If Yes:** 1) Enforce regulations for the prudent use of veterinary medicines, including antimicrobials. 2) Encourage alternatives to antimicrobials in aquaculture, such vaccines, immunostimulants, phage therapy and medicinal plants. 3) Monitoring of antimicrobial residues to ensure compliance.
3.5.4 Does the country regulate the movement of live animals, both within the country and across borders, in alignment with FAO or World Organisation for Animal Health (WOAH) guidelines?	• Yes • No **If Yes:** 1) Based on FAO guidelines. 2) Based on WOAH guidelines. 3) Based on both FAO and WOAH guidelines.
3.5.5 Does the country have measures/regulations in place to prevent the escape of farmed aquatic organisms into the wild?	• Yes • No **If Yes:** 1) The law has provisions to require farms to install measures to prevent the escape of cultured fish. 2) There is a limitation of which species are permitted to be cultured due to escape risks. 3) Aquaculture operators are required to have mitigation/control mechanisms when escapes have occurred. 4) There is capacity for enforcement. 5) Audits are conducted of aquaculture operations. 6) There is public reporting of escapes.
3.5.6 Does the country have laws and guidelines regarding the use of drugs, chemicals, and other substances in aquaculture?	• Yes • No **If Yes:** 1) The law provides for the monitoring of and penalties for the use of banned drugs and other substances. 2) The country has guidelines that include veterinary products and chemicals used in animal husbandry, including aquaculture, and their proper application.
3.5.7 Does the country have fish health management practices aligned with FAO or WOAH guidelines?	• Yes • No **If Yes:** 1) Aquatic animal health management is incorporated into the national policy and aquaculture development plan. 2) Regulations and guidelines for health management are enforced. 3) The government agency has a strong capacity to enforce the regulations and monitor compliance with the guidelines.

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.5.8 Does the country have measures in place to enhance national capacities for diagnosing, preventing, and mitigating health risks, promoting biosecurity, and improving aquatic organism health and welfare through good husbandry and biosecurity practices?	• Yes • No **If Yes:** 1) Risk analysis. 2) Disease prevention. 3) Integrated disease and pest management. 4) Preparedness and rapid response to abnormal mortality events.
3.6 Strategies to address climate change, natural disasters, pollution, and pandemics	Climate-resilient aquaculture and disaster risk reduction should involve comprehensive stakeholder consultation, following guidelines from the UNFCCC, the Paris Agreement, and the FAO Climate Change Strategy. Identifying climate hazards through risk assessments is essential for transitioning to resilient practices, including decarbonization for low-carbon, nutritious diets. Enhancing the climate mitigation potential of specific aquaculture types, like carbon sequestration from algae or mollusks, is important, as is promoting aquaculture's role in protecting marine and coastal ecosystems against climate change impacts.
3.6.1 Does the country have measures in place to strengthen climate change and disaster preparedness?	• Yes • No **If Yes:** 1) Apply risk analysis/vulnerabilities using internationally recognized methods such as Intergovernmental Panel on Climate Change (IPCC) for aquaculture planning and management 2) Develop contingency plans, coordination arrangements, public information and training 3) Implement risk reduction and adaptation strategies. 4) Ensure that aquaculture is included in national adaptation plans (NAPs). 5) Invest in monitoring and early warning systems and integrating/collaborate with existing approaches for agriculture and other sectors. 6) Promote technologies and systems that increase the adaptive capacity of aquaculture including climate-proofing innovations, which may include greenhouse gas emissions reduction technology, proven genetic improvement approaches such as focusing on selective breeding and adopting improved farming systems that enhance sector resilience. 7) Build institutional capacity and support related training and technical assistance to producers to support climate-resilient aquaculture practices. 8) Ensure that aquaculture climate adaptations are “climate-smart” as defined by FAO.

Item	Explanation
Section III: Sustainable Resource Use, Ecosystem and Farm Management	
3.6.2 Does the country recognize the potential contribution of aquaculture to climate change?	• Yes • No **If Yes:** 1) Use systematic analysis tools to quantify the carbon footprint and analyse carbon emission "hotspots" in aquaculture production and value chains. 2) Identify mitigation measures to further reduce the carbon emission intensity of aquaculture products 3) Prevent the migration of carbon emissions along the aquaculture value chain. 4) Recognize the carbon sequestration potential for aquaculture 5) Develop and adopt improved farming systems (climate-proofing innovation)

Section IV: Social Responsibility, Decent Work and Gender Equality	
4.1 Social responsibility and decent work	Social acceptability is crucial for aquaculture sustainability, reflecting how local communities and society view aquaculture activities. It hinges on perceived benefits and includes improving working conditions, social protection, and decent work in collaboration with organizations like the ILO. Corporate social responsibility is essential, emphasizing the industry's role in supporting economic, environmental, cultural, and social development to enhance community well-being. Ultimately, decent work conditions, including rights, employment, and social dialogue, are vital for gaining social acceptance of aquaculture ventures.
4.1.1 Does the country have enacted and enforced non-discriminatory labour policies that focus on promoting and safeguarding the interests of women, youth, and vulnerable or marginalized groups?	• Yes • No **If Yes:** 1) Focus on promoting and safeguarding the interests of women. 2) Focus on promoting and safeguarding the interests of youth. 3) Focus on promoting and safeguarding the interests of marginalized groups. 4) Focus on promoting and safeguarding the interests of people with disabilities. 5) Focus on promoting and safeguarding the interests of future generations.
4.1.2 Does the country have measures in place to eliminate practices such as forced labour, prevent debt-bondage, child labour, and unfair payment, while promoting responsible social practices in value chains and creating safe and healthy working conditions for men and women free from any form of abuse?	• Yes • No **If Yes:** 1) Eliminate forced labour. 2) Eliminate debt-bondage. 3) Eliminate child labour. 4) Eliminate unfair payment. 5) Promote responsible social practices in value chains. 6) Create working conditions that are safe and healthy for men and women, and free from any sort of abuse.
4.1.3 Does the country support appropriate training of workers on good practices along the aquaculture value chain and harness the full potential of technological progress and digitalization to create decent jobs and sustainable enterprises in the sector?	• Yes • No

Item	Explanation
Section IV: Social Responsibility, Decent Work and Gender Equality	
4.1.4 Does the country create adequate working conditions, ensure safety and health at work, and provide access to universal, comprehensive, adequate, and sustainable social protection, including accident, life, and health insurance, regardless of employment status or working arrangements in the formal or informal sector?	• Yes • No
4.2 Youth empowerment	Young people can play a central role in aquaculture development. It is important to empower them to ensure that they play a leading role today and are active in shaping the future of aquaculture growth. Empowering them will require a tailored and multifaceted approach.
4.2.1 Does the country develop national strategies and action plans targeting youth employment, including initiatives for disadvantaged young people?	• Yes • No **If Yes:** 1) Incorporate aquaculture into educational curricula to offer students appropriate training and promote quality apprenticeships 2) Develop policies and facilities specific to disadvantaged young people to help them become financially self-sufficient through aquaculture. 3) Provide Scholarships, internships, infrastructure projects, incentives and extension services available for youth in aquaculture 4) Offer Informal or formal, and on-the-job training programs in aquaculture to improve young people's skills 5) Develop tertiary education programs to create more aquaculture scientists 6) Foster entrepreneurship and incubation programs linked with education for access to finance to promote the development of new projects for young people and facilitate their preferential access to productive resources.
4.3 Gender equality and women's empowerment in aquaculture	Aquaculture activities are often gender imbalanced. Acknowledgement by all parties of the critical role of women in aquaculture is necessary to promote women's equal access to, control over and benefit from natural resources, assets, markets, infrastructures, information, financial services, training and entrepreneurship.
4.3.1 Does the country develop and implement evidence-based policies and legislation that promote gender equity in all aquaculture development strategies?	• Yes • No **If Yes:** 1) Secure women's equal voice and participation in decision-making processes. 2) Create space for civil society organizations (CSOs). 3) Promote women workers and their organizations (women's collectives and organizations). 4) Facilitate the recruitment and access to leadership opportunities for women. 5) Ensure equal job opportunities and salaries for women. 6) Ensure equitable access for women to extension and technical services. 7) Ensure equitable access for women to legal and financial supports. 8) Consider gender-specific constraints, needs and priorities. 9) Implement policies to eradicate gender-based violence.

Item	Explanation
Section IV: Social Responsibility, Decent Work and Gender Equality	
4.3.2 Does the country develop gender-specific indicators and establish more efficient data collection systems and infrastructures?	• Yes • No **If Yes:** 1) Produce homogenous and consistent sex-disaggregated data. 2) Partially produce such data.
Section V: Value Chains, Market Access and Trade	
5.1 Sustainable aquaculture value chains	A comprehensive aquaculture value chain encompasses production, inputs, and the entire journey from water to plate. A market-driven approach enhances the value chain's effectiveness, while good governance ensures fair trade, transparency, appropriate technology use, and improved quality and efficiency.
5.1.1 Does the country provide effective regulatory and support mechanisms that create an enabling environment for the development of aquaculture value chains (AVCs) and ensure their long-term sustainability, including infrastructure, technology, standards, and best management practices (BMPs)?	• Yes • No **If Yes:** 1) Establish comprehensive regulatory frameworks that support AVC development. 2) Develop infrastructure for aquaculture production and distribution 3) Promote and integrate actively technology innovations into aquaculture practices. 4) Promote standards for quality and safety in aquaculture.
5.1.2 Does the country promote capacity building for small-scale aquaculture farmers and operators, particularly focusing on women, youth, and vulnerable and marginalized groups?	• Yes • No **If Yes:** 1) Provide training programs tailored for small-scale aquaculture farmers and operators. 2) Provide programs to support vulnerable and marginalized groups in improving their aquaculture practices. 3) Establish partnerships with local organizations and stakeholders to facilitate training and support.
5.1.3 Does the country promote the integration of aquaculture value chain (AVC) actors and stakeholders, including inter-professional organizations, within the aquaculture business and encourage AVC innovation and investment?	• Yes • No **If Yes:** 1) Maintain standards through technical evolutions that are consistent with international agreements. 2) Promote the role and influence of different AVC actors to facilitate equitable relationships and distribution of benefits and risks between AVC actors. 3) Promote research and development, species selection, product diversification, application of new technologies, and the wider adoption of market-based tools such as traceability, certification, eco-labelling, branding and digital applications.
5.2 Transparent and predictable market requirements and international trade	An effective aquaculture value chain relies on international standards to protect workers and consumers. Stakeholders must understand the value chain to safeguard aquatic food resources and benefit all parties. Ensuring traceability, transparency, and market predictability is crucial for upholding the rights of suppliers, producers, and consumers.

Item	Explanation
Section V: Value Chains, Market Access and Trade	
5.2.1 Does the country promote access for farmers to markets and information?	• Yes • No **If Yes:** 1) Ensure that market entry rules, standards and technical regulations are consistent with the national regulations and international agreements, such as World Trade Organization (WTO) Agreements, in particular the Sanitary and Phytosanitary Measures (SPS) Agreement and the Technical Barriers to Trade (TBT) Agreement, and standards and technical regulations on protecting the environment, consumers, animal health and welfare and social rights of AVC workers. 2) Promote the harmonization of technical regulations and standards for aquaculture products with internationally recognized norms. 3) Promote the development of frameworks for the improvement and verification of the aquatic product quality, traceability, and e-commerce.
5.2.2 Does the country promote the development of frameworks for improving and verifying aquatic product quality, traceability, and e-commerce?	• Yes • No
5.2.3 Does the country promote the application of the circular economy approach to reuse and recycle waste, as well as assess the main causes of food losses and waste to identify the best solutions?	• Yes • No

Section VI: Mechanisms and Services Required to Support Sustainable Aquaculture Development	
6.1 Funding and Financing	Sustainable aquaculture growth requires funding for governance, infrastructure, research, planning, and skill development. However, funding for aquaculture development is often not easily accessible and relies on various sources and mechanisms.
6.1.1 Does the country implement investment policies and strategies for long-term public and private funding, particularly for farmers who typically struggle to access financing from financial institutions?	• Yes • No **If Yes:** 1) Target infrastructure development. 2) Support new technologies. 3) Promote capacity development, including training and research. 4) Ensure environmentally and socially sustainable practices.
6.1.2 Does the country assess funding and investments in aquaculture for their social and environmental impacts?	• Yes • No **If Yes:** 1) Ensure that investments strengthen food security. 2) Evaluate impacts on availability of food. 3) Consider access to food resources. 4) Assess utilization and stability of food supply.
6.1.3 Does the country promote domestic and foreign investment, funding, and insurance schemes in aquaculture?	• Yes • No
6.1.4 Does the country invest in aquaculture extension and training?	• Yes • No

Item	Explanation
Section VI: Mechanisms and Services Required to Support Sustainable Aquaculture Development	
6.1.5 Does the country invest in infrastructure and facilities that support aquaculture development?	• Yes • No
6.1.6 Does the country provide farmers with access to institutional credit?	• Yes • No
6.1.7 Does the country provide aquaculture farmers with access to insurance schemes?	• Yes • No
6.1.8 Does the country have a government assistance scheme that covers farms in case of disasters?	• Yes • No
6.2 Research and Innovation	Investing in research and innovation is crucial for sustainable aquaculture, as it develops new technologies and practices that enhance economic, environmental, and social performance. Incorporating indigenous knowledge and practices is important for relevant development. Focusing on these areas helps address sector challenges, improve efficiency, reduce environmental impacts, and promote long-term sustainability.
6.2.1 Does the country invest in aquaculture research and innovation to enhance its economic, environmental, and social performance throughout the value chain, prioritizing sustainable development for long-term improvements?	• Yes • No **If Yes:** 1) Establish and maintain centres of excellence in aquaculture across industry, academia, and state and non-state actors. 2) Support and strengthen R&D partnerships among industry, academia, and state/non-state actors at local, bilateral, regional, and international levels. 3) Enhance the capacity of the national research system to provide knowledge, information, technology, and advice for policy, planning, and management. 4) Improve the capacity to disseminate and utilize outputs from national or external research systems to support aquaculture development.
6.3 Communication	Effective communication is crucial for enhancing public perception and building consensus on aquaculture development. The sector's credibility depends on its ability to convey its role in sustainable development. By prioritizing communication through workshops and media campaigns, stakeholders can raise awareness of aquaculture's benefits and challenges. Engaging local communities and indigenous peoples fosters consensus and supports sustainable sector development.
6.3.1 Does the country have an aquaculture communications strategy?	• Yes • No **If Yes:** 1) Demonstrate social and environmental sustainability of the industry. 2) Inform and educate the public on the importance of aquaculture for sustainable development and food security.
6.3.2 Does the country have a government monitoring, data collection, and analysis system for aquaculture?	• Yes • No **If Yes:** 1) Mechanisms to collect public interest data on aquaculture. 2) Transparent, publicly accessible interactive aquaculture information systems. 3) Public reporting and communication tools accessible to all stakeholders and the general public.

Item	Explanation
Section VI: Mechanisms and Services Required to Support Sustainable Aquaculture Development	
6.4 Capacity Development	Effective capacity development is vital for addressing community needs and should be led by local actors in line with national priorities. It prepares the future aquaculture workforce by building technical skills while integrating information technology and artificial intelligence. To ensure sustainability, it must be rooted in national systems and local expertise.
6.4.1 Does the country have a national policy and strategy on capacity building that enhances decision-making for all aquaculture stakeholders?	• Yes • No **If Yes:** 1) Promote a participatory process in decision-making. 2) Implement Best Management Practices (BMPs). 3) Provide formal education and training. 4) Offer non-formal education opportunities.
6.4.2 Does the country support investment and implement capacity development programs, innovation, and extension services to ensure equitable access for all stakeholders?	• Yes • No **If Yes:** 1) Facilitate the exchange of innovation and know-how. 2) Support modernization and innovative approaches. 3) Incorporate digital technologies in services. 4) Promote education and extension activities.
6.4.3 Does the country support investment in capacity development, innovation, and extension services to provide and transfer demand-driven information and technologies to farmers?	• Yes • No **If Yes:** 1) Facilitate the exchange of know-how. 2) Provide training in technologies such as Artificial Intelligence (AI), blockchain, and Internet of Things (IoT). 3) Use appropriate formats and local languages for training. 4) Offer practical solutions tailored to farmers' needs.

This document represents the final report of the FAO Expert Workshop on the Revisions to the FAO Code of Conduct for Responsible Fisheries Aquaculture Questionnaire held in Bangkok, Thailand from 8–10 May 2024. The main objectives of the workshop were to (i) analyse the current CCRF-Aquaculture Questionnaire and identify areas for improvement; (ii) propose revisions for a new draft questionnaire; and (iii) recommend strategies to enhance FAO Member participation in completing the Questionnaire.

ISBN 978-92-5-139622-3 ISSN 2070-6987

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CD4319EN/1/02.25