



COMMITTEE ON FISHERIES

SUB-COMMITTEE ON AQUACULTURE

Tenth Session

Trondheim, Norway, 23–27 August 2019

SPECIAL EVENT ON BETTER MANAGEMENT PRACTICES AND GUIDELINES FOR SUSTAINABLE AQUACULTURE DEVELOPMENT

Executive Summary

In 2018, the FAO Committee on Fisheries (COFI) endorsed the recommendation of the COFI Sub-Committee on Aquaculture (COFI:AQ) made in 2017 that FAO should develop global guidelines for sustainable aquaculture development. This document reviews the current state of development of these Sustainable Aquaculture Guidelines (SAG). It describes existing tools and instruments currently used to support and guide the sustainable development of aquaculture.

The document is structured into suggested scope, structure and content of the SAG, and a process to develop and implement them.

Suggested action by the Sub-Committee

- Reflect on the process towards the development and implementation of Sustainable Aquaculture Guidelines;
- Advise on the methodology for identifying the lessons learned from strategies and experiences of aquaculture developments worldwide by making use of the answers to the biennial Code of Conduct for Responsible Fisheries (CCRF) survey (while considering the confidentiality of the answers to the CCRF survey);
- Provide recommendations on how to make the CCRF survey questionnaire more relevant for reporting the implementation of SAG and the Sustainable Development Goals (SDG);
- Support resource mobilization efforts to raise awareness on Sustainable Aquaculture Guidelines and strengthen related programmes.

*This document can be accessed using the Quick Response Code on this page;
an FAO initiative to minimize its environmental impact and promote greener communications.
Other documents can be consulted at www.fao.org*



INTRODUCTION

1. During the 33rd Session of the Committee on Fisheries (COFI) held in Rome, Italy from 9 to 12 July 2018, the Committee noted the increasing importance of aquaculture for food security and nutrition, improved livelihoods, poverty alleviation, income generation, as well as job creation and trade (especially for small-scale producers), and its potential to meet growing demand to fill the gap in global fish supply.¹
2. During its ninth session held in Rome, Italy from 24 to 27 October 2017, the Committee also acknowledged the remark made by the Sub-Committee on Aquaculture (COFI:AQ) that there is a growing need for implementation of best practices in aquaculture in many countries and regions.² The Committee thus endorsed the recommendation of the Sub-Committee that FAO should develop global guidelines for sustainable aquaculture development.¹
3. In this context, the Kingdom of Norway offered to contribute human and financial resources for the development of such guidelines and for the preparation of a strategic paper by FAO on the possible scope, structure and contents, as well as on the development and implementation of such guidelines. In 2018, the Korea Maritime Institute of the Republic of Korea also offered to support the process in order to pursue a global and several regional aquaculture consultations on the subject, as well as to provide assistance on a global programme for raising awareness and capacity building.

SUSTAINABLE AQUACULTURE GUIDELINES (SAG)

Context

4. During the last few decades, aquaculture growth has been exponential and this will need to continue to sustain the provision of food and livelihoods to a population well in excess of 9 billion people by the middle of the twenty-first century, while addressing the disproportionate impacts of climate change and environmental degradation on the resource base.³
5. Yet, in a number of countries, aquaculture development has not always been sustainable. This has resulted in social and environmental costs, including unsustainable water or natural feed use, mangrove destruction, biodiversity loss etc.⁴ With the growing importance of aquaculture, the cumulative effects of the industry started to become significant, at least in some regions.
6. Moreover, despite its global success, the disparity in the level of aquaculture sector development and uneven production distribution remain great among the countries within the regions and across the world. In particular, aquaculture production still remains limited in some areas where its production and the livelihoods it creates would be much needed.³
7. Nonetheless, many countries have implemented various strategies in support of a successful and sustainable aquaculture development. These include technology-intensive innovations, innovative

¹ Report of the 33rd Session of the Committee on Fisheries.

http://www.fao.org/fileadmin/user_upload/bodies/Conference_2019/MX970_23/MX970_C_2019_23_en.pdf

² Report of the ninth session of the Sub-Committee on Aquaculture <http://www.fao.org/3/i8886t/i8886T.pdf>

³ The State of World Fisheries and Aquaculture 2018 <http://www.fao.org/3/I9540EN/i9540en.pdf>

⁴ Transforming Food and Agriculture to achieve the SDGs -20 interconnected actions to guide decision-makers <http://www.fao.org/3/I9900EN/i9900en.pdf>

governance, certifications and many other good practices. The Sub-Committee on Aquaculture called for identifying such initiatives and for documenting and compiling them into Sustainable Aquaculture Guidelines (SAG) aimed at helping the countries achieve a better implementation of the Code of Conduct for Responsible Fisheries (CCRF), while engaging and enabling their aquaculture sector to effectively participate in the implementation of the 2030 Agenda for Sustainable Development.^{2,5}

Existing tools and instruments

8. The FAO CCRF⁶ is the reference framework for national and international efforts, including in the formulation of policies and other legal and institutional frameworks and instruments, to ensure sustainable production of aquatic living resources in harmony with the environment. It 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, with due respect for the ecosystem and biodiversity. The Code recognizes the nutritional, economic, social, environmental and cultural importance of fisheries and the interests of all stakeholders of the fishing and aquaculture industries. The Code takes into account the biological characteristics of the resources and their environment, and the interests of consumers and other users. Article 9 of the CCRF applies specifically to aquaculture whereas most of the nineteen general principles laid down by article 6 of the Code, as well as some other articles (5.1, 8.1.5, 8.6, 10, 12) are also to some extent relevant to aquaculture.¹⁵

9. Between 1997 and 2019, many Technical Guidelines (TG) and Tools for Responsible Fisheries have been developed in support to the implementation of the CCRF in the field of aquaculture.⁷ These include a series on Aquaculture Development (TG5), as well as several other guidance relevant to aquaculture such as: TG2 on Precautionary approach to fisheries and species introduction, TG3 on Integration of fisheries into coastal management, TG4 on Fisheries management, TG7 on Responsible fish utilization, TG11 on Responsible fish trade and TG12 on Information and knowledge sharing.^{7,21} In 2012, the team in charge of evaluating the implementation of CCRF identified two areas that needed further work²¹: disease management and drug/chemical use;⁸ use of fish and fishmeal in aquaculture feed.⁹ The following year, the aquaculture service conducted its own appraisal of existing FAO guidelines on aquaculture¹⁰ and identified the following areas of interest not yet covered by guidance: (i) Species introduction and transfers for aquaculture purposes; (ii) Stock enhancement (culture-based fisheries); (iii) Commodity-specific site selection and zoning (for selected aquaculture species and farming systems, including Strategic Environmental Assessment); (iv) Selected food safety issues in aquaculture – consumer protection; (v) Decent work and acceptable working conditions in aquaculture (implementation of labour laws, safety at work guidelines, fair wages policies, gender equality/equity etc.); (vi) Corporate social responsibility schemes; (vii) Communicating aquaculture: public image, perceptions and the sector's responsibilities; (viii) Emergency/early warning systems for natural or anthropogenic disasters (including e.g. tsunami, climate change impacts, pollution/oil spills, blooms etc.); (ix) Offshore aquaculture and High Seas aquaculture; (x) Use of GMO in aquaculture. Several recommendations were also drawn with regards to the dissemination, implementation and monitoring of the impact of the guidelines.¹⁰

⁵ Decisions and Recommendations of the Ninth session of the COFI-Sub-Committee on Aquaculture, Rome, Italy, 24-27 October 2017 <http://www.fao.org/3/MW944EN/mw944en.pdf>

⁶ FAO Code of Conduct for Responsible Fisheries <http://www.fao.org/3/v9878e/V9878E.pdf>

⁷ COFI:AQ/X/2019/SDB2, Items 1 and 3.

⁸ Although “many international (e.g., OIE), regional and national documents addressed this issue [...] comprehensive international guidance could be important” (Evaluation of FAO’s support to the implementation of the CCRF²¹).

⁹ Especially with regards to the rapid growth of aquaculture and use of locally developed feeds (Evaluation of FAO’s support to the implementation of the CCRF²¹).

¹⁰ Barg, U., 2013. Appraisal of existing FAO CCRF guidelines on aquaculture. A synthesis. FAO, Rome: 49 p.

10. In 2000, the Bangkok Declaration and Strategy¹¹ articulated seventeen strategic elements for aquaculture development, that could be broadly summarised as: (i) a responsible farmer is justifiably rewarded; (ii) costs and benefits are shared equitably; (iii) society benefits from the practice and products of aquaculture; (iv) adequate, affordable and safe food is available and accessible to everyone; (v) the environment is conserved for the next generation, and (vi) the development of the sector is orderly. These were reaffirmed ten years later by the Phuket Consensus,¹² which also formulated seven recommendations: (i) to increase the effectiveness of governance of the aquaculture sector; (ii) to encourage and facilitate greater investments in scientific, technical and social innovations; (iii) to conduct accurate assessments of the progress and contributions of aquaculture including aquatic plants, to national, regional and global economies, poverty alleviation and food security; (iv) to intensify assistance to the small farmers; (v) to support gender sensitive policies and implement programmes that facilitate economic, social and political empowerment of women; (vi) to increase and strengthen collaboration and partnerships; (vii) to give special emphasis on sub-Saharan Africa and the countries and areas where aquaculture is least developed.

11. The FAO Blue Growth Initiative¹³ (BGI) is a coherent framework for the sustainable and socio-economic management of living aquatic resources and is anchored on the principles set out in the CCRF. It emphasizes the integration of fisheries and aquaculture with other users and services of aquatic ecosystems and underscores the value of fisheries and aquaculture for these users. It aims to decouple economic growth from environmental degradation by supporting more productive, responsible and sustainable fisheries and aquaculture sectors through governance improvement and aquatic ecosystems management. The Committee on Fisheries held in Rome in 2018 expressed support for the Blue Growth Initiative, as a strategy for the sustainable development of fisheries and aquaculture.¹

12. The 2030 Agenda for Sustainable Development was adopted during the United Nations Sustainable Development Summit on 25 September 2015 in order to transform our world towards more sustainability, by achieving seventeen Sustainable Development Goals (SDGs) by 2030.¹⁴ All the goals and many associated targets are, at least to some extent, relevant to aquaculture development.¹⁵ The existing aquaculture guidance, especially the CCRF and its associated Technical Guidelines, the Bangkok declaration and Phuket consensus, or the Blue Growth Initiative, should support delivery of the SDGs in many aspects. However, they also need to be strengthened in some key cross-cutting areas. These areas of gaps or improvements include the Precautionary principles/Precautionary approach; Poverty alleviation, hunger eradication and creation of decent work; Leaving no-one behind: equity, human rights, access and opportunity for all (e.g. access to suitable sites, skills, finance, inputs, market intelligence); Resource use efficiency and waste; Resilient aquaculture farming systems; Genetic resource sharing and conservation; Fair and productive value chains; Dealing with trade-offs between different SDGs; Nature of environmental capacity or limits to growth; integration and complexity; Environmental assessment and precaution; Adaptive planning and management systems; Human and labour rights; Capacity development of institutions; Stakeholder participation and empowerment.¹⁵

¹¹ Bangkok Declaration and Strategy <http://www.fao.org/3/a-ad351e.pdf>

¹² Phuket Consensus: a re-affirmation of commitment to the Bangkok Declaration.

http://www.fao.org/tempref/FI/DOCUMENT/aquaculture/aq2010/Phuket_Consensus_13-12-2010.pdf

¹³ Blue Growth Initiative <http://www.fao.org/policy-support/policy-themes/blue-growth/en/>

¹⁴ SDG 1: No poverty; SDG 2: Zero hunger; SDG 3: Good health and well-being for people; SDG 4: Quality education; SDG 5: Gender equality; SDG 6: Clean water and sanitation; SDG 7: Affordable and clean energy; SDG 8: Decent work and economic growth; SDG 9: Industry, Innovation, and Infrastructure; SDG 10: Reducing inequalities; SDG 11: Sustainable cities and communities; SDG 12: Responsible consumption and production; SDG 13: Climate action; SDG 14: Life below water; SDG 15: Life on land; SDG 16: Peace, justice and strong institutions; SDG 17: Partnerships for the goals (<https://sustainabledevelopment.un.org/>).

¹⁵ The 2030 Agenda and the Sustainable Development Goals: The challenge for aquaculture development and management. FAO Fisheries And Aquaculture Circular FIAA/C1141 <http://www.fao.org/3/a-i7808e.pdf>

13. FAO also formulated a Common Vision for Sustainable Food and Agriculture¹⁶ in order to promote a coordinated approach towards sustainability. The Common Vision is comprehensive and knowledge-based, but – above all – responsive to the needs and expectations of member countries. It sets out five key principles that balance the social, economic and environmental dimensions of sustainability: 1) improving efficiency in the use of resources; 2) conserving, protecting and enhancing natural ecosystems; 3) protecting and improving rural livelihoods and social well-being; 4) enhancing the resilience of people, communities and ecosystems; and 5) promoting good governance of both natural and human systems. These five principles provide a basis for developing national policies, strategies, programmes, regulations and incentives that will guide the transition to an agriculture that is highly productive, economically viable, environmentally sound, and which is based on the principles of equity and social justice. COFI held in Rome in 2018 recognized the Common Vision for Food and Agriculture as a useful framework to support the sustainable growth of aquaculture¹.

14. In order to better help policy-makers engage and enable all agricultural sectors to effectively participate in the implementation of the 2030 Agenda, FAO has also developed guidelines based on the Common Vision, by proposing 20 interconnected actions aimed at transforming the food and agriculture systems.¹⁷

15. Other FAO and non-FAO documents as well as case studies can be relevant for the development of the Sustainable Aquaculture Guidelines.¹⁸ In addition, several guides highlighting good practices for the sector have also been developed by the industry, the private or associative sectors (auditing and certification schemes), governments (regulations, BMPs) and regional organizations in order to support sustainable aquaculture development.¹⁹ This sometimes led to confusion for the consumers and difficulties to comply for the producers, especially the smallholders,^{1,20,21} which the SAG aims at clarifying.

Approach for the development of the Sustainable Aquaculture Guidelines

Suggested purpose and target beneficiaries

16. The suggested purpose of the envisaged Sustainable Aquaculture Guidelines is to provide practical guidance to government authorities and policy-makers in their efforts of:

- 1) promoting the implementation of CCRF;
- 2) and engaging and enabling aquaculture to effectively participate in the implementation of the 2030 Agenda for Sustainable Development.

17. More specifically, the Guidelines will further help member countries use the existing and upcoming FAO guidelines to develop their capacity development programmes for the sustainable management of the sector.²² For this, the SAG will build on the lessons learned from a series of successful and unsuccessful²³ aquaculture case studies.

¹⁶ Building a common vision for sustainable food and agriculture <http://www.fao.org/3/a-i3940e.pdf>

¹⁷ Transforming Food and Agriculture to achieve the SDGs: 20 interconnected actions to guide decision-makers. FAO, Rome 2018 <http://www.fao.org/3/I9900EN/i9900en.pdf>

¹⁸ Examples are listed in COFI:AQ/X/2019/SDB2, Item 2.

¹⁹ Private standards and certification in fisheries and aquaculture: Current practice and emerging issues <http://www.fao.org/docrep/013/i1948e/i1948e00.htm>

²⁰ EAC regional strategy and implementation plan for sustainable aquaculture. <http://www.fao.org/3/a-az018e.pdf>; <http://www.fao.org/3/a-az019e.pdf>

²¹ Evaluation of FAO's support to the implementation of the CCRF <http://www.fao.org/3/me173e/me173e.pdf>

²² <http://www.fao.org/capacity-development>

²³ As unsuccessful experiences can also provide very useful knowledge on Better Management Practices.

18. Other target beneficiaries will include farmers, producers' organizations, value-chain stakeholders, Civil Society Organizations (environment, social), consumers, financing institutions or investors.

Suggested content

19. The proposed content of the SAG will follow the model of the FAO guidance on "Transforming Food and Agriculture to achieve the SDGs"⁴ by including:

- 1) Component 1: Possible pathways towards successful implementation of sustainable aquaculture in different regional contexts,²¹ based on lessons learned from strategies and experiences of accomplishments in comparable settings or regions;
- 2) Component 2: A series of practical thematic modules describing the rationale and attributes for approaches and practices on each specific topic, the existing guidelines and the key recommendations for successful implementation and capacity development, based on the achievements and difficulties highlighted by the lessons learned;
- 3) Component 3: A series of case studies boxes describing the process, the accomplishment and the constraints, to illustrate the possible pathways and thematic factsheets.

20. At the farm level, the thematic modules will focus on:

- 1) Business management: entrepreneurship; market analysis; compliance with legislation; insurance; accounting; stock management; consumer information; marketing; prevention and maintenance etc.
- 2) Site selection, risk assessment and mitigation measures: environmental interactions/biodiversity; social and community interactions; land tenure; theft; diseases; climate change; other natural disasters etc.
- 3) System construction, engineering or rehabilitation: resilience; efficient feed, fertilizer and water management; wastewater use; energy and resource use; integration and synergies etc.
- 4) Environmental impact management: genetic resource management; alien and native species; seed supply; feeds; carrying capacity; effluent management; water abstraction and conservation; escapes; predator control; aquatic plant control; mortalities and wastes; disease and pathogens etc.
- 5) Farm operation: genetic selection; breeders management; facility and equipment maintenance; fertilization; polyculture and integrated multi-trophic aquaculture; feed use monitoring; growth monitoring; wild fish management; growth parameters management (temperature, light).
- 6) Biosecurity and aquatic health management: preventive measures; treatments; Anti-Microbial Resistance management.
- 7) Market access, food safety and quality management: traceability; risk management; residues; feed storage; processing; nutritional value.
- 8) Animal well-being: water quality; stocking density; handling; slaughtering; transport.
- 9) Decent and safe work: Farm workers and their families; gender equity; youth employment.
- 10) Special business operations: aquaculture-based fisheries; capture-based aquaculture; offshore and high-seas aquaculture etc.

21. Beyond the farm level (i.e. at the sector, value-chain, landscape, territory, country, region etc. levels), the thematic modules will focus on:

- 1) Governance: Precautionary principles/approach; Aquaculture Policy; Aquaculture Development Plan; Spatial planning and zonation; mechanisms in place to protect livelihoods of the local communities; access rights to land and water bodies; collective management of common goods; protection of biodiversity, ecosystem services and common goods; consultation with stakeholders in formulating aquaculture policy and/or aquaculture development plan; incentives for farmers to restore or rehabilitate resources degraded by their

activities; polluter-pays principle; conflict resolution schemes; existence of institutions dealing with aquaculture development, existence of administrative and regulatory frameworks; established systems for registration of farms and value chain stakeholders; fair trade; International trade regulation; market access for producers, including smallholders; sectoral/commodity-specific aquaculture development plans and strategies; participation of farmers associations in sector development and management; practices adopted to lead to improvement in the sustainability of aquaculture farms.

- 2) Sector and value-chain performance: voluntary certification schemes and BMP²⁴s; assistance schemes in case of disaster, institutional credit; commercial insurance; communication, extension and training between buyers and suppliers; management and reduction of losses and wastes; public and private services to producers; food safety (traceability, HACCP²⁵).
- 3) Specific capacity of the state on: biosecurity and health management; movement of live animals; environmental management; food safety; conflict management; preparedness to respond to disasters, preparedness to manage the risks impacts from climate change.
- 4) Integration, synergies and trade-offs between aquaculture, surrounding ecosystems and other stakeholders: aquaculture integrated into coastal development and management plans, or integrated into watershed and land use plans; maintenance of ecosystems services; carrying capacity; integration of aquaculture into community development planning; cumulative impacts/benefits of aquaculture in the territory and along the SDGs: environmental impact assessment and monitoring; wildlife sanctuaries, water quality improvement, recreational value, greenhouse gas mitigation, carbon sequestration etc.
- 5) Data and statistics: access to data by farmers; monitoring of production, trends, diseases access to market prices by all stakeholders; importance of the sector; market and production trends.
- 6) Communication and knowledge exchange: farmers-to-farmers; farmers-to-suppliers; farmers-to-buyers; e-extension; social media; market information; other data (diseases, weather, advice etc.); rapid alert systems; community communication; access to technical information.
- 7) Resource sharing and cooperation: investment in aquaculture extension; investment in aquaculture research; investment in infrastructures that support aquaculture development; regional and inter-regional initiatives for resource sharing and knowledge exchange; aquaculture networks.

Suggested process

22. The SAG will be developed by convening several Expert Consultations, at Global and Regional levels.
23. A process for the development of the SAG was designed, as suggested below:
 - 1) Identification of the lessons learned from a series of strategies and experiences of aquaculture developments worldwide: A possible methodology for selecting the case studies will be developed, discussed and amended during a Global Expert Consultation, and presented to COFI Sub-Committee on Aquaculture. The responses provided by the countries, Regional Fisheries Bodies and Aquaculture Networks to the biennial CCRF survey about their current efforts of implementation of the aquaculture-related provisions of the CCRF will be analysed to identify and select case studies to illustrate various dimensions of aquaculture development (governance, technologies, environmental friendly practices, social aspects and human rights,

²⁴ Better Management Practices – “The term 'better' is preferred rather than 'best' because aquaculture practices are continuously improving”

http://www.fao.org/fishery/docs/DOCUMENT/aquaculture/code_of_practice/call_for_contributions.pdf

²⁵ Hazard Analysis and Critical Control Points (as defined by *Codex alimentarius* <http://www.fao.org/fao-who-codexalimentarius/home/en/> in its General Principles of Food Hygiene CAC/RCP 1-1969)

value chains, SDGs etc.), while considering the confidentiality of answers²⁶. Selection of such case studies will be balanced across regions and according to development status, production level and production systems. The former recommendations of the COFI Committee and Sub-Committee on Aquaculture²⁷, the FAO country project reports, experts' own experience and existing publications²⁸ will also be used for this identification.

- 2) Documentation of the case studies: A draft methodology for documenting the initiatives will be developed, discussed and amended during the Global Expert Consultation. Among the information to collect will be: (i) the stakeholders involved, their gains and losses during the process; (ii) the historical process and sequence of events leading to the accomplishment; (iii) the positive outcomes and direct and indirect impacts; (iv) the difficulties encountered and solutions implemented; (v) the use made of existing guidelines²⁹; (vi) the current situation and way forward. The collection and compilation of data will be done during several Regional Expert Consultations following the Global Expert consultation and COFI Sub-Committee on Aquaculture. Some field surveys may also be required for documenting some case studies.
- 3) Compilation of the case studies: The documented case studies and lessons learned will be compiled into lessons learned with regard to the existing FAO codes and frameworks, notably the CCRF³⁰ and the Common Vision for Sustainable Food and Agriculture³¹. The documented case studies will also be used to develop recommended pathways towards successful implementation of sustainable aquaculture.
- 4) Development of the SAG: The further development of the SAG will be conducted by taking into account the existing guidelines and gaps to be filled, the specific challenges, constraints, needs and expectations of member countries in different regions, especially for the development of the possible pathways towards sustainable aquaculture. The thematic modules will represent the core of the SAG. They will be comprehensive and practical. Each thematic module will be under the responsibility of one coordinator. The current relevance of existing guidelines will also be assessed, using a gap analysis.

24. The proposed roadmap for the development of the SAG will be established during the Global Expert Consultation and presented to the tenth session of the COFI Sub-Committee on Aquaculture as a background document. It should include the following steps and tentative deadlines:

- 1) Global Expert Consultation (June 2019): methodology, roadmap.
- 2) Submission of the roadmap and progress report to COFI Sub-Committee on Aquaculture (August 2019).
- 3) Regional meetings in Africa, Asia, Latin America, Small Island Developing States (2019-2021) and drafting of the SAG.
- 4) COFI 34 is informed of SAG process (July 2020).
- 5) SAG is submitted to COFI Sub-Committee on Aquaculture for review and adoption (2021).

²⁶ « In using the data for ad hoc reports and assessments, the Committee called upon FAO to consider confidentiality aspects in consultation with the Members concerned, as appropriate.” COFI/2018/3 Progress in the implementation of the Code of Conduct for Responsible Fisheries and related instruments <http://www.fao.org/3/MX205EN/mx205en.pdf>

²⁷ e.g. Towards establishing a strategic framework for strengthening the role of the COFI Sub-Committee on Aquaculture in advancing aquaculture development <http://www.fao.org/cofi/43341-04a74a5d167de0034251e8eaf83de443e.pdf>

²⁸ e.g. Brugere, C., Aguilar-Manjarrez, J., Beveridge, M. and Soto, D. (2018) The Ecosystem Approach to Aquaculture ten years on (EAA+10): stocktaking and way forward. *Reviews in Aquaculture*, 0: 1-22. <https://onlinelibrary.wiley.com/doi/full/10.1111/raq.12242>

²⁹ A check-list based on the provisions of the CCRF and the actions of the FAO guide for “Transforming Food and Agriculture to achieve the SDGs” guideline will be developed to assess each initiative against the existing guidelines.

³⁰ Including the Aquaculture Governance and Sector Development, the Ecosystem Approach to Aquaculture or the Blue Growth Initiative.

³¹ On which the FAO guidance for Transforming Food and Agriculture to Achieve the SDGs⁴ is based.

- 6) SAG is submitted to COFI 35 for endorsement (2022).
- 7) Publication of SAG (2022/2023).
- 8) Implementation (capacity building etc.) (from 2023).

25. The deliverables from the Global expert consultation will be submitted to COFI:AQ and will include the following:

- 1) A proposed methodology and criteria for selecting strategies and experiences of aquaculture developments worldwide and identifying the lessons learned from them.
- 2) A methodology for documenting and analysing the lessons learned.
- 3) A list of thematic modules.
- 4) A gap analysis between existing guidelines and needs for new ones.
- 5) An updated roadmap.

26. The Regional expert consultations' deliverables will include the following:

- 1) A list of documented case studies highlighting their sustainability with regards to existing guidelines and the lessons learned.
- 2) A series of region-specific pathways for successful implementation of sustainable aquaculture using existing guidelines.
- 3) Region-specific considerations for the implementation of the thematic modules.

Implementation

27. FAO will provide assistance to the implementation of SAG. The guidelines will be promoted for local adoption through advocacy, pilot approaches and incorporation into all education and training programmes for aquaculture. Close coordination between fisheries and aquaculture officers in headquarters, in member countries, and in subregional and Regional offices will need to be reinforced throughout the process of development and implementation of the SAG. Strategic engagement with key agencies³² will be pursued to support adoption of the SAG in their priorities for aquaculture development. The institutional capacity development will be implemented at farm and sectoral level, by enabling institutions/organizations and policies. Whenever required, the implementation of SAG will also be listed in the multi-annual Country Programming Frameworks by designing and implementing projects that demonstrate and develop approaches to SAG implementation and ensuring that the project results are sustainable in the long term through their uptake by others.

28. The SAG will be implemented by the countries and regional bodies by taking into account their broader 2030 Agenda platforms, strategies and/or action plans. The governments, the private sector and other institutions/organizations with a common interest in development through sustainable aquaculture³², will be on the frontline. Synergy and cooperation between them will have to be promoted, and potential conflicts mitigated.

29. Co-operative mechanisms and aquaculture networks among countries provide an excellent opportunity to co-ordinate and support the development of sustainable aquaculture, through sharing of experiences, technical support, and allocation of responsibilities for the varied research, education and information exchange. The fostering of cooperation among developing countries deserves special attention and support.

³² UN agencies, Development assistance partners, financing institutions, philanthropic foundation, countries and regional bodies, environmental, welfare and other NGOs, farmers' organizations, regional and international organizations, aquaculture industry bodies etc.

GUIDANCE SOUGHT

The Sub-Committee is invited to:

- Reflect on the process towards the development and implementation of Sustainable Aquaculture Guidelines;
- Advise on the methodology for identifying the lessons learned from strategies and experiences of aquaculture developments worldwide by making use of the answers to the biennial CCRF survey (while considering the confidentiality of the answers to the CCRF survey);
- Provide recommendations on how to make the CCRF survey questionnaire more relevant for reporting the implementation of SAG and SDG;
- Support resource mobilization efforts to raise awareness on Sustainable Aquaculture Guidelines and strengthen related programs.