

Food and Agriculture Organization of the United Nations

## Report of the Thirty-fourth Session of the

## ASIA-PACIFIC FISHERY COMMISSION (APFIC)

Colombo, Sri Lanka, 12–14 February 2016



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REGIONAL OFFICE FOR ASIA AND THE PACIFIC FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS Bangkok, 2016

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### **Preparation of this report**

This is the edited version of the report approved by the Thirty-fourth Session of the Asia-Pacific Fishery Commission.

#### Abstract

This is the final report of the Thirty-fourth Session of the Asia-Pacific Fishery Commission (APFIC) convened from 12 to 14 February 2016, hosted by the Ministry of Fisheries and Aquatic Resources Development, Sri Lanka. The Session was attended by 15 APFIC member countries and comprised 29 participants and 9 observers. The Commission reviewed the inter-sessional work programme of APFIC and endorsed the report of the meeting of the Seventy-fifth APFIC Executive Committee. The Commission endorsed the recommendations of the Sixth Regional Consultative Forum Meeting in full and recommended that these should form the future biennial work plan of APFIC. The Commission requested that the APFIC biennial aquaculture overview include more details on seaweeds in future editions. The Commission recommended two options for APFIC member countries to follow up on cooperation to combat illegal, unreported and unregulated (IUU) fishing. One option was the development of an ASEAN Memorandum of Understanding (MOU) on combatting IUU fishing; a second alternative or supporting action could be the broadening of the membership of the Regional Plan of Action to Deter and Eliminate IUU Fishing (RPOA-IUU). The Commission endorsed the recommendations of the APFIC Regional Consultative Workshop "Improving the contribution of culture-based fisheries and fishery enhancements in inland waters to blue growth" convened from 25 to 27 May 2015 in Negombo, Sri Lanka, and the accompanying technical guidance document. The Commission welcomed the FAO blue growth initiative programme and several members expressed their interest to be included in the activities. The Commission endorsed the regional strategy and action plan developed by the regional consultative workshop on "Promotion of sustainable intensification of aquaculture for food and nutritional security in the Asia-Pacific". The Commission recognized the contribution of the regional Global Environment Facility (GEF) projects with which they have been engaged and noted that the outputs of these projects have relevance for enhancing fishery management and capacity in the region. Several member countries expressed their interest in greater involvement in these initiatives. The Commission requested the Secretariat to proceed with an update of the Strategic Plan, which would be reviewed by the Seventy-sixth APFIC Executive Committee meeting. The Commission endorsed the forthcoming biennial Work Plan (March 2016 – March 2018) with a number of amendments. The Commission recommended that future financial arrangements for the Commission be included in the agenda of the Seventy-sixth Executive Committee. The Commission elected new officers and agreed that the Thirty-fifth Session of APFIC will be convened in Philippines in 2018.

#### **Distribution:**

Participants in the Session Members of the Commission Other interested nations and international organizations FAO Fisheries Department Fishery Officers in FAO Regional Offices

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## **Opening of the Session**

1. The Asia-Pacific Fishery Commission (APFIC) held its Thirty-fourth Session from 12 to 14 February 2016 in Colombo, Sri Lanka. The session was attended by 29 representatives of 15 member countries of the Commission and the APFIC Secretariat. There were also nine observers from other FAO member countries and representatives of partner organizations. A list of the delegates and observers is appended as Appendix B.

2. The welcome comments were delivered by Mr Simon Funge-Smith, Secretary of the Asia-Pacific Fishery Commission on behalf of Ms Kundhavi Kadiresan, Assistant Director-General and Regional Representative, FAO Regional Office for Asia and the Pacific. Mr Funge-Smith expressed his gratitude to the Government of Sri Lanka, and to the Chairman of APFIC, for hosting the Thirty-fourth Session of APFIC and the Sixth APFIC Regional Consultative Forum Meeting (6<sup>th</sup> RCFM) in Colombo, Sri Lanka. He informed the Commission that APFIC provides a platform for the discurôion of key regional issues in capture fisheries, inland waters and blue growth. The Commission would also be informed on progress of the previous work plan and implementation of Code of Conduct for Responsible Fisheries (CCRF). He noted that APFIC's role as a regional body provided an avenue for the issues of the region to reach numerous global fora.

3. The welcome and introductory remarks were provided by the APFIC Chair, Ms W M M R Adikari, Secretary, Ministry of Fisheries and Aquatic Resources Development, Sri Lanka. The Chair welcomed the APFIC member country delegations and observers noting that APFIC is a key Regional Fishery Body for the Asian region, which is the biggest producer of fish and aquatic products in the world. She emphasized that APFIC has a role in promoting fisheries and aquaculture production but noted that the region faces challenges in the management of marine and inland fisheries and aquaculture in order to secure food and nutrition security. APFIC offers a way for member countries to cooperate and the APFIC Chair emphasized that the technical work of APFIC on blue growth in fisheries and aquaculture is timely and important, noting that blue growth is a new concept that needs further discussion. She concluded that the recommendations of the Thirty-fourth Session of APFIC would be used for decision-making and planning processes in fisheries and aquaculture for the Asia-Pacific region in the future.

4. The inaugural speech was delivered by the Honourable Mahinda Amaraweera, Minister of Fisheries and Aquatic Resources, Ministry of Fisheries and Aquatic Resources Development, Sri Lanka. The Honourable Minister welcomed the participants to the APFIC Session, observing that Sri Lanka has a long and positive association with FAO, which has made a big contribution to the development of the fisheries sector in the country. He stated that the APFIC Session is a valuable opportunity to meet and to discuss common programmes, exchange information and learn from each other. Outlining how Sri Lanka is promoting full and sustainable use of its resources, the Honourable Minister noted that the country has always given high priority to the fisheries sector as a major contributor to social and economic development, food and nutrition security. Looking to the future, the Honourable Minister noted that it was expected that the fishery and aquaculture sectors would provide an increasing percentage of the national Gross Domestic Product (GDP) and that there would be considerable effort to increase the contribution of both aquaculture and inland fisheries, whilst sustaining the benefits from Sri Lanka's marine fishery resources. In conclusion, the Honourable Minister welcomed the delegates to the Thirty-fourth APFIC Session and confirmed the desire of the Government of Sri Lanka to fully engage with the international community and conveyed his best wishes for the success of the meeting.

## Adoption of the agenda

5. The Commission agreed to the request of the delegation of Republic of Korea for the inclusion of an item on the development of the World Fisheries University under agenda item 12 (Other matters).

6. The Commission adopted the amended agenda and agreed on the arrangements for the Thirty-fourth Session. The agenda appears in Appendix A.

7. The documents considered and reviewed by APFIC are listed in Appendix C.

# Activities of the Asia-Pacific Fishery Commission (APFIC) since the Thirty-third Session

8. The APFIC Secretary introduced document APFIC/16/02 and APFIC/16/INF 03 summarizing the main events and activities undertaken by APFIC and the Secretariat since the Thirty-third Session of APFIC, which was held in Hyderabad, India, 23–25 June 2014.

#### Fishery management and promotion of the ecosystem approach to fishery management

9. The Commission was informed of activities that have been undertaken and training materials that have been developed for the "Port inspection of fishing vessels". The training course is published on the Web site and training has been undertaken in Thailand and the Maldives. The Commission was also informed that the course is relatively easy to adapt to individual member countries and their specific needs for port inspections.

10. The Secretary reported that anecdotal reports suggest that the principles of the APFIC tropical trawl management guidelines have been incorporated into national planning in a number of countries. This work is linked to the work of the Sustainable Fisheries Partnership and the "Strategies for trawl fisheries bycatch management" (REBYC-II CTI) project which was developed under the leadership of FAO in close collaboration with the Southeast Asian Fisheries Development Center (SEAFDEC) and funded jointly by the Global Environment Facility (GEF) and the implementing and executive partners.

11. The biennium has seen the promotion and the further development of the 'Regional trainers for the Essential Ecosystem Approach to Fishery Management (EEAFM) training course. The training course is completed and all materials are posted on the APFIC and partner Web sites. A one-day training course "Lead EAFM" had been developed with APFIC partners Bay of Bengal Large Marine Ecosystem Project (BOBLME), the National Oceanic and Atmospheric Administration (NOAA) and SEAFDEC.

12. The Commission welcomed this training programme, noting its relevance to strengthening fishery management and the promotion of blue growth in both marine and inland fisheries in the region.

13. The Thirty-third Session of the Commission recommended the development of better methods to estimate the types and scale of IUU fishing in the region. A methodology for characterizing types and drivers of IUU fishing has been developed and a draft regional review of IUU fishing by foreign owned or operated fishing vessels in the Asian region has been prepared. The Commission discussed this under agenda item 5.

14. An APFIC questionnaire on Fish Aggregating Devices (FADs) and artificial reefs did not receive high response rate and it was concluded by the Secretariat that there was insufficient information to prepare a report.

15. Noting the review undertaken only referred to fixed FADs, not free floating FADs, the Commission also noted that there remains a high interest in the use of fixed FADs and artificial reefs as fishery management measures in several member countries and these could be reviewed in a regional workshop.

#### **Inland Fisheries**

16. The Thirty-third Session of APFIC recommended more emphasis on increasing capacity for information and management in inland fisheries. Work delivered under this recommendation included the convening of an APFIC Regional consultation on "Improving the contribution of culture-based fisheries and related fishery enhancements in inland waters to blue growth" in Sri Lanka and is covered under agenda item 7.

17. In addition to this, several FAO countries and regional Technical Cooperation Programme (TCP) projects (Bhutan, Lao People's Democratic Republic, Mekong River Commission (MRC)) have been executed in the biennium in support of management of inland fisheries. Furthermore, the Commission was informed that an FAO/GEF inland fisheries project is being developed with Indonesia.

#### Sustainable intensification of aquaculture for blue growth

18. The Commission was informed that actions have been taken on the recommendation for further regional consultation to prioritize necessary actions at regional and national levels and to develop a strategic action plan for supporting the sustainable intensification of aquaculture in the region. These areas have been taken up as a major theme under the biennial programme of work of the Commission and outcomes include the development of a planning toolkit to be piloted under an FAO Regional TCP.

19. The Commission noted that an Ecosystem Approach to Aquaculture (EAA) training course would be of benefit to the promotion of blue growth and the development of such as course would be of significant value to the APFIC region.

20. The Commission recommended the adaptation of training materials to develop and pilot an EAA training course.

## Recommendations of the Thirty-third APFIC Session not implemented during the 2014-2015 biennium

21. The Commission noted two areas which had not been covered during the biennium but remained of relevance. These were the development of guidelines for improved aquatic biosecurity and further work on efficient low cost fish feeds for blue growth.

22. The Commission commented that the promotion of blue growth depends on healthy systems and also requires the use of a precautionary approach which has strong relevance to biosecurity. The Commission noted further that the review of feeds for aquaculture should also include sustainable supplies of feed to meet the demands of aquaculture growth in the future as there will be increasing competition for feed resources.

23. The Commission recommended that both areas of work be included in the work programme subject to the availability of funding.

#### Organization of regional meetings and workshops

24. The APFIC Secretariat has organized or jointly organized three regional and international consultative workshops, notable for the participation of APFIC member countries and the excellent partnership with a range of regional fishery organizations, institutions and projects. Under the Asia-Pacific Fishery Commission (APFIC) work plan these were:

- FAO/APFIC/Network of Aquaculture Centres in Asia-Pacific (NACA) regional consultation on "Strategy and action plan for sustainable intensification of aquaculture in the Asia-Pacific," 27-28 November 2014, Bangkok, Thailand;
- FAO/APFIC/NACA regional workshop on "Documentation on sustainable intensification of aquaculture", 16–18 June 2015, Bangkok, Thailand;
- APFIC/FAO regional consultation on "Improving the contribution of culture-based fisheries and related fishery enhancements in inland waters to blue growth", 25–27 May 2015, Negombo, Sri Lanka; and
- FAO/MRC regional workshop on "Synthesis of regional and national fish stock enhancement practices and recommendations for the mitigation of the impacts", Hanoi, 2–5 September 2014, hosted by the Government of Viet Nam.

## Technical and advisory support to workshops and meetings of FAO and regional organizations and member countries

25. APFIC Secretariat provided technical support to ten technical workshops or meetings convened by FAO. The APFIC Secretariat has also collaborated with a number of regional partner organizations including six regional workshops with NACA and five workshops with SEAFDEC. The APFIC Secretariat has further contributed technical support to 23 national and regional meetings and workshops during the biennium.

#### Knowledge and communication

26. The Commission was informed that the APFIC Secretariat had acted on the recommendation to emphasize the potential contribution of the fishery sector to food security and nutritional well-being. It has now published the review of FAO household survey data on the contribution of fish to diet in the region as "The consumption of fish and fish products in the Asia-Pacific region based on household surveys". This is available online.

#### **APFIC Web site**

27. The APFIC Web site remains a repository for information relevant to the Commission and its work. It is being upgraded and will be moved to the FAO servers under a corporate policy of FAO. The broad functionality of the Web site will remain the same. The Secretariat informed the Commission that the site would also be more secure in the long term.

28. The Commission noted this action and emphasized that speed and ease of accessibility to the APFIC was a key aspect of its utility. The Commission further requested that the Web site be used to communicate upcoming events and to carry the working papers and prospectus and background documents for such events.

29. The Commission further requested the posting of the list of APFIC technical focal points to facilitate coordination between member countries.

#### Conclusion

30. The Commission acknowledged the wide range of activities that had been undertaken in response to the recommendations of the Thirty-third Session, and expressed its appreciation of the work undertaken by APFIC and the APFIC Secretariat during the biennium 2014-2015.

## **Report of the Seventy-fifth Meeting of the APFIC Executive Committee**

31. The Commission was informed of the activities of the APFIC Executive Committee and the report of its Seventy-third Meeting (APFIC/16/03, APFIC/16/INF 04) which was convened in Colombo, Sri Lanka, 11–13 November 2014.

32. The Commission endorsed the report of the Seventy-fourth APFIC Executive Committee Meeting.

## **Report from the Sixth APFIC Regional Consultative Forum Meeting**

33. The Sixth Asia-Pacific Fishery Commission (APFIC) Regional Consultative Forum Meeting, "Promoting blue growth in fisheries and aquaculture in the Asia-Pacific" was convened at the Taj Samudra Hotel in Colombo, Sri Lanka, 8–10 February 2016.

34. The Meeting was attended by 54 participants from 15 countries and representatives from 9 regional partner organizations and projects. The Meeting was hosted by the Ministry of Fisheries and Aquatic Resources Development, Government of Sri Lanka together with FAO and APFIC.

35. The findings of the discussions and thematic sessions were presented to the plenary for endorsement on the third day of the 6<sup>th</sup> RCFM. The key conclusions and recommendations endorsed by the 6<sup>th</sup> RCFM are presented in APFIC/16/INF 06 and are included in Appendix D of this report.

#### Major conclusions and recommendations of the 6<sup>th</sup> RCFM

36. Blue growth-type approaches are already being promoted throughout the region.

#### There is a need for clarity on the concepts and terms used for blue growth

37. It is recommended to clarify the concepts, definitions and terms used for blue growth which explain clearly how it is a way of implementing key normative frameworks that support it. Such frameworks include for example: global frameworks such as CCRF, Ecosystem Approach to Fishery Management (EAFM), International Plan of Action to Prevent, Deter and Eliminate IUU Fishing (IPOA-IUU), Port States Measures (PSM), Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (VGSSF), and the regional frameworks of the Sustainable Development Goals (SDG). Other non-fishery related frameworks may be linked such as: Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCC), Regional Seas, International Labour Organization (ILO), and the International Maritime Organization (IMO).

#### **Opportunities for blue growth in marine fisheries**

38. Blue growth through the application of EAFM has been achieved. The 6<sup>th</sup> RCFM cautioned that growth in many capture fisheries may not be achieved in terms of increased production. It is recommended to support recovery of overfished or overexploited capture fisheries to ensure that

they can make an optimal contribution to blue growth. It is also recommended to develop blue growth management plans using an EAFM approach. In many capture fisheries where increasing production is not possible, benefits can be gained by improving the value chain, reducing losses and reducing IUU fishing.

#### Blue growth in inland fisheries

39. Much of the focus of blue growth in inland fisheries lies in the potential to increase the productivity of inland waters. This can be achieved through enhancement, habitat manipulation and stocking. Blue growth, therefore may not seek to increase productivity, but rather secure its sustainability and the economic benefits it generates. It is recommended to sustain ecosystem services critical for inland fisheries, to promote monitoring and knowledge acquisition for management, and to support and empower inland fishers.

#### Opportunities for blue growth in aquaculture

40. The 6<sup>th</sup> RCFM agreed that blue growth in aquaculture can contribute significantly to meeting the increasing demand for fish in the Asian region. Blue growth in aquaculture will require both improved efficiency of production, sustainable intensification as well as expansion of production area in the region. It is recommended to strengthen aquaculture planning and the regulatory framework, to promote innovations in culture systems and technology that allow higher productivity, greater intensity of production and in some cases more efficient use of inputs, and to promote integrated culture systems as a means to reduce the environmental footprint and improve the efficiency of the utilization of nutrients.

#### Capturing the potential of the value chain

41. In order to increase the prospect of local communities to benefit from their production, it is recommended to try to capture opportunities of certification/GAP and better marketing, to promote increased preparedness to address non-tariff barriers with trade from importing countries, to promote and develop new products from seafood, and to explore value adding and product transformation.

#### **Climate change responses**

42. Blue growth is climate smart and there are a range of ways to capture opportunities in existing or innovative production systems in both capture fisheries and aquaculture. It can also capture efficiencies to improve production and/or economic performance.

#### Ensure that blue growth contributes to gender mainstreaming

43. Women play an important role in fisheries and aquaculture production and value chains and their empowerment will contribute positively to blue growth.

#### Adequate safeguards and precautions

44. As countries become interested in blue growth, the 6<sup>th</sup> RCFM cautioned that to be truly "blue" there must be safeguards built in that ensure human and environmental well-being. Blue growth should not push inappropriate technology or drive producers into production systems that are beyond their financial or technical capacity to manage sustainably or economically. Poorly conceived blue growth initiatives may conflict with small-scale fisheries. It is recommended to develop adequate safeguards and precautions and clarify the linkages between the VGSSF and blue growth and build this into safeguards.

#### Knowledge to support blue growth

45. Decision-making, policy development and EAFM planning all require adequate information and knowledge. It is recommended to strengthen the assessment and monitoring of fisheries, to improve general understanding of the potential for blue growth, to improve communication of and linkage to science and local knowledge to support management decision-making, to improve monitoring of intensive aquaculture development and develop carrying capacity models for different systems, and to conduct valuations of different production systems to develop economic arguments for blue growth.

#### Coordination with the private sector and consumers

46. It is recommended to coordinate with businesses, the private sector and consumers as they are major drivers of investment in blue growth and markets. It is important to ensure that their investments and actions contribute positively to blue growth.

#### **Opportunities for regional cooperation**

47. There is potential for developing a regional cooperation programme for promoting blue growth, in particular how to ensure that blue growth initiatives are truly blue. A range of technical and thematic areas were provided.

#### **Responses of the Commission**

48. Welcoming these conclusions and recommendations, the Commission emphasized the importance of an effective governance framework to underpin many of the recommendations and the ability to implement these effectively.

49. The Commission further noted that blue growth initiatives need to be broadened to engage the environmental sectors, and also other sectoral stakeholders related to fisheries (e.g. fishing labour; vessel standards; pollution management; biodiversity related conventions and arrangements).

50. The Commission endorsed the summary conclusions and recommendations of the  $6^{\text{th}}$  RCFM.

## **Overview of aquaculture in the Asia-Pacific region 2015**

51. The Commission considered the Regional Review of Aquaculture in the Asia-Pacific region 2015 prepared by the Secretariat (APFIC/16/05 and information paper APFIC/16/INF 06). The review is based on the Fishstat J online database from FAO (latest data 2013), covering world aquaculture up to 2013. The review describes the development of aquaculture production in the Asia-Pacific region from 2003 to 2013 by main group of species and by sub-regions of aquaculture based on official reports and statistics sent to FAO by Members.

52. The Commission welcomed the overview as a periodic update on trends in production for the Asia-Pacific region.

53. The Commission suggested it could be improved by reporting on a number of other species that are of interest to the region (to be reported separately). These include seaweeds, ornamentals and sea cucumber.

54. Other areas that were proposed for reporting are fishmeal trends, aquaculture import/export (and consumption) and flood plain fisheries.

55. The data for *Pangasius* reported by some countries should be checked as production in India and Bangladesh is now extremely significant, although apparently not reflected in the FAO statistics.

56. The Secretariat noted that there had been requests over the years to increase the scope of the analysis but that the data were from Fishstat J. The reporting of trade flow trends is challenging based on the data available. Fishstat J data are from national reports to FAO, so if species are misreported, then this can be taken up with those that provide the data.

57. The Secretariat concurred that seaweeds in particular are important for blue growth and should be reported more comprehensively for the region. The reporting is rather limited or non-existent for ornamental species and sea cucumber and should be improved so that trends can be identified.

# APFIC regional review of illegal, unreported and unregulated (IUU) fishing by foreign vessels

58. At its 33<sup>rd</sup> Session, the Asia-Pacific Fishery Commission was informed that although IUU fishing occurred in the region, there was a lack of detailed information regarding its scale, characteristics and its drivers. The Commission recommended the development of better methods to estimate the types and scale of IUU fishing in the APFIC region to inform discussion and support the development of cooperative approaches to combat IUU fishing.

59. The Secretary presented the working paper APFIC/16/06 Rev 1, which detailed the action taken by the APFIC Secretariat to develop a draft regional review (APFIC/16/INF 07) that responds to this recommendation of the Commission. This developed an approach to characterize IUU fishing and to derive some estimates of its scale in terms of tonnages and values, as well as locations, numbers of vessels involved and the nature and drivers of the IUU fishing activity.

60. The review is intended to show how to characterize IUU fishing and show how it varies within the region. This will enable the identification of opportunities to combat IUU fishing and thus strengthen fishery management. It is hoped that in the future with the development of methodologies for characterizing and quantifying IUU fishing, APFIC member countries may be able to improve their analyses and reporting of both domestic and foreign IUU fishing activities.

61. IUU fishing remains a pervasive problem in the Asian region and its clandestine and illegal nature makes IUU fishing difficult to detect and deter. It also remains a challenge to derive adequate regional characterizations and estimates of volumes and values of IUU fishing activities. IUU fishing is not the same throughout the region and thus needs different approaches. The factors and drivers of IUU fishing are also identified and include issues such as weak legal frameworks, ineffective registries, tolerance of IUU fishing, limited capacity to undertake surveillance, most countries have no Vessel Monitoring System (VMS), economic incentives, tax avoidance, corruption, poor port infrastructures, and less tolerance of transboundary fishing.

62. The Secretariat emphasized that the methods for characterization of IUU fishing and the recommended use of risk analysis will enable member countries to review their IUU fishing issues and target resources and develop appropriate responses more effectively.

63. A major conclusion of the review is that many of the actions that could be taken by member countries to address their IUU fishing issues would be identified under an NPOA-IUU fishing process, and this is a major recommendation of the review.

#### **Responses of the Commission**

64. The Commission recognized that many member countries are currently taking significant steps to combat IUU fishing.

65. The Commission welcomed the draft review, noting that it is a start to open dialogue and that the review needed to be revised and improved. It was noted that the review did not include domestic IUU fishing issues as these are usually poorly reported.

66. The Secretariat noted that future updated information on IUU fishing should be provided by member countries and that the Commission could take steps to commit and to provide updates in the future.

67. The Commission further recommended that significant capacity building was needed for issues such as port inspections, at sea inspections, improving licensing and registration systems and the effective use of VMS as part of Monitoring, Control and Surveillance (MCS).

68. The Commission recommended two options for APFIC member countries to follow up. The first option was the development of an ASEAN MOU on combatting IUU fishing, and the second alternative or supporting action, was the broadening of the membership of the Regional Plan of Action to Deter and Eliminate IUU Fishing (RPOA-IUU) was also proposed.

69. Summaries of member country reports are provided in Appendix F.

## APFIC member country feedback on progress in implementing responsible fisheries and aquaculture in the Asia-Pacific region

70. The Secretary introduced working document APFIC/16/07 as part of the regular report on development and implementation of the recommendations of the Commission. The working paper reviewed the principal recommendations of the previous three Sessions of the Commission (2010, 2012 and 2014).

71. As part of the regular reporting to the Commission, member countries were invited to report on any significant actions or development related to key recommendations of the Commission. A short set of questions relevant to the recommendations of the previous Session of APFIC was sent to member countries prior to the Thirty-fourth Session to assist members in providing feedback on a variety of issues (APFIC/16/INF 08).

72. The thematic areas that the member countries were invited to cover in their feedback covered action to improve the governance of fisheries and aquaculture: updates of legal frameworks; actions to strengthen management of fisheries; actions to improve the management of aquaculture; and actions to improve the management of inland fisheries.

73. Many of the APFIC member countries are in the process of rapidly upgrading legislation targeted at improving management of fisheries and aquaculture. Specific actions are being taken by many member countries to combat IUU fishing, improve flag state controls on fishing vessels, develop fishery management plans using an EAF approach, and establish protected areas and closed seasons with the specific purpose of improving fisheries. Reduction of the impact of fishing is being achieved through efforts to reduce bycatch and overfishing.

74. Member countries are also taking actions to sustain or improve the performance of inland fisheries with actions principally taken to conserve critical habitats and environmental flows. The

importance of closed seasons and the establishment of refuge areas, as well as stocking programmes was noted. A major effort being taken in several countries is the organization of communities or groups to engage with culture-based fisheries and stocking initiatives. In all cases the importance of engaging with stakeholders in planning was emphasized.

75. Member countries are also taking significant steps to improve the regulation and management of their aquaculture sectors. Actions included upgrading legislation, registration and licensing of aquaculture operations, zoning of farms, development of codes of practice, upgrading biosecurity and food safety systems.

76. Some of these management actions are driven by market requirements or obligations to trade mechanisms such as the World Trade Organization (WTO). In other cases it simply reflected the need to strengthen management of these two important sub-sectors in order to sustain them over the long term.

77. Capacity building and training underpins many of these actions and many members mentioned that they were using the EAF as their management planning process. The need for greater capacity development for the implementation of EAF was underscored. At the primary and secondary education levels it was noted that inclusion of fisheries and aquaculture in the early school curriculum was a way to develop interest in this sector in children.

78. The potential for sharing curricula that have been developed was noted with materials available from the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO), as well as several member countries (e.g. Cambodia, Maldives, Thailand) under their school programmes or as part of their adult learning extension programmes.

79. In responding to this agenda item member countries reported a wide range of activities that they had undertaken related to the recommendations of the previous sessions of APFIC. The responses are presented in Appendix E.

# APFIC regional guidance for responsible culture-based fisheries and indicators for the enhancement of inland fisheries

80. The Commission reviewed documents APFIC/16/08, APFIC/16/INF 09 and APFIC/16/INF 10 with respect to the development of APFIC regional guidance for responsible culture-based fisheries and indicators for the enhancement of inland fisheries. The Thirty-first Session of APFIC noted the need for the development of regional guidance on responsible enhancement of inland water and also the findings of reviews by FAO and NACA. The working paper follows a recommendation at the Thirty-third APFIC Session for greater coverage of inland fisheries. Many countries are undertaking enhancements.

81. APFIC/FAO convened a regional consultation on "Improving the contribution of culturebased fisheries and fishery enhancements in inland waters to blue growth" on 25–27 May 2015 in Negombo, Sri Lanka. The regional consultation was hosted by the Government of Sri Lanka with support by the FAO Regional Office for Asia and the Pacific (FAO-RAP), APFIC, the Fisheries and Aquaculture Department of FAO in Rome (FAO-FI) and the Australian Centre for International Agricultural Research (ACIAR). The report of the regional consultation was provided as APFIC/16/ INF 09.

82. With respect to Culture-Based Fisheries (CBF) and related fishery enhancements, the objectives of the regional consultation were to review the main problems/opportunities in inland waters, understand the use of decision frameworks, advise on the application of the EAFM as a tool

for management planning in inland fisheries and provide recommendations on methods for measuring the impact and indicators of success (in both marine and inland waters), and to identify future work for more comprehensive global guidance on stocking and CBF. A wide range of conclusions and recommendations were developed.

83. These included the widespread nature of CBF and enhancements in the region. A wide range of examples were provided. It was noted that a range of benefits were also realized including the potential to contribute to blue growth. Other issues include the need for cross-sectoral cooperation and the need to address social issues and ensure that rights of access are respected and conflict avoided. In terms of monitoring, an adequate baseline should be developed together with good indicators of successful CBF practices and a systematic assessment of CBF in the region.

84. Three technical papers were prepared including a global review of best practice and step by step guide for stocking, an overview of alternatives for stocking and a review of regional stock enhancement practices.

#### **Responses of the Commission**

85. The Commission noted that the Asian region had a considerable range of examples of stocking, culture-based fisheries and enhancements. This was perhaps good news, in the face of general reports of declining inland fishery production in many areas.

86. The Commission took note that good governance and social organization are key factors in determining the success of stocking and enhancement initiatives.

87. The Commission discussed the issues of how CBFs are reported to FAO, either as aquaculture production or fishery production depending upon the country. Although this is a national decision and partly dependent upon the nature of the CBF operation, this issue continues to obscure the different contributions of inland capture fisheries, aquaculture and CBF.

88. The Commission noted the relevance of CBF and stocking to blue growth and recommended that these approaches are promoted under blue growth initiatives.

89. The Commission endorsed the recommendations of the APFIC Regional Consultative Workshop and the accompanying technical guidance document.

### Implementation of FAO regional initiative for aquaculture in the Asia-Pacific region

90. The Secretary introduced documents APFIC/16/09, APFIC/16/INF 11, APFIC/16/INF 12 with respect to the implementation of the FAO regional initiative for blue growth in aquaculture in the Asia-Pacific region (BGI).

91. Fish plays an increasingly important role in people's nutrition and supplies more than 17 percent of animal protein in people's diet globally. Aquaculture has now become as an important source of fish as capture fisheries, which currently supplies more than 60 percent of food fish for Asia. The Asia-Pacific region currently produces about 90 percent of the world's aquaculture production. The expectation is that aquaculture will increasingly contribute to the future supply of fish in Asia.

92. It was noted that aquaculture cannot be increased continuously without impacts. As it is intensified it will need more resources and will generate more waste. Development must be done in the context of responsible planning and management to ensure it does not become a threat to itself. The Regional BGI addresses the need for greater production and also ensures that this is achieved in a sustainable manner.

93. The key areas of the programme include improving the utilization efficiency of aquaculture resources, production efficiency (with reduced impacts on the environment), resilience of farmers and the sector, and equity and social acceptability along the aquaculture value chain.

94. The major areas of work of the regional initiative include supporting member countries in identifying options for addressing key governance issues, increasing farmers' adaptability to climate change impacts and resilience to natural disasters and socio-economic risks, reducing negative environmental and social impacts of aquaculture intensification through promoting innovative farming technologies and management practices and supporting the member governments to improve the access of poor rural aquaculture farmers to quality production inputs, sustainable production technology and markets.

95. The BGI has developed a regional action plan with a set of clear outcomes and 23 outputs. The strategy is aimed at strengthening the enabling environment for sustainable expansion and intensification of aquaculture in the Asia-Pacific region, promoting good governance, effective planning and management in the development of sustainable aquaculture, improving management along the entire aquaculture value chain, improving production and management practices at the farm level, promoting social responsibility and equitable benefit distribution along the aquaculture value chain, and increasing the resilience of aquaculture farmers.

96. A key area of work has been documentation and dissemination of successful practices of sustainable intensification of aquaculture in the Asia-Pacific region. Within this area of work a consultation on feeds was undertaken and the documentation developed included examples of successful practices of sustainable intensification of aquaculture such as genetic improvement, healthy and high quality seed production, improved feeding efficiency and economics, farmer organization and empowerment and reduced environmental impacts of aquaculture.

97. In the 2014-2015 biennium, the BGI has been implemented through field projects in the focus countries, with some activities at regional level. A number of regional target countries were identified and a regional TCP developed. The pilot countries are Bangladesh, Indonesia, Philippines, Sri Lanka, Timor-Leste and Viet Nam.

#### **Responses of the Commission**

98. The Commission welcomed the BGI programme and several members expressed their interest to be included in the activities.

99. The Commission endorsed the regional strategy and action plan developed by the regional consultative workshop "Promotion of sustainable intensification of aquaculture for food and nutritional security in Asia-Pacific".

100. The Commission recognized the potential for promoting integrated systems to achieve blue growth outcomes, including rice-fish culture, integrated multi-trophic aquaculture (IMTA) and aqua-silviculture to promote food diversity and ecological benefits. The Commission also noted the opportunities for the integration of fish-livestock systems, but noted that these systems may raise food safety challenges unless managed effectively.

101. The Commission indicated potential new areas of work under the regional strategy and action plan for blue growth and sustainable intensification of aquaculture:

 The importance of biosecurity in sustaining blue growth and the possible need to revisit the capacity to implement regional and international frameworks as well as disease surveillance and management;

- The challenges of feeds and feeding to meet the future needs of blue growth (noting that this is a theme for the March 2016 to March 2018 biennium of APFIC);
- The challenges of climate change adaptation in fishery and aquaculture, practical solutions and need for monitoring and early warning systems to decrease vulnerability;
- The potential and opportunities for aquaculture insurance, improved value chains and use of technology; and
- Development of guidance on sustainable limits for aquaculture production systems and linking this to advice on zoning and regulation.

# Progress in FAO/GEF initiatives for regional cooperation in fishery management

102. The Seventy-fifth Executive Committee recommended that the Sixth APFIC Regional Consultative Forum meeting explore the results of the FAO regional GEF international waters programme. In response to this request, the APFIC Secretariat presented the Commission with an outline of the ongoing and pipeline FAO/GEF projects in the region that are relevant to the programmes of APFIC (APFIC/16/10 Rev 1, APFIC/16/INF 03).

103. The Commission was informed of the work of the regional GEF programmes of FAO, which are pertinent to the work of APFIC. These projects include:

- Bay of Bengal Large Marine Ecosystem Project (BOBLME)
- Strategies for trawl fisheries bycatch management (REBYC-II CTI)
- Indonesian Seas Large Marine Ecosystem Project (ISLME).

104. Other relevant FAO/GEF country projects under preparation include:

- GEF Least Developed Countries Fund (LDCF) climate adaptation country projects under development in Cambodia, Myanmar and Bangladesh that are mainly focused on climate adaptation type work; and
- A GEF biodiversity programme country project in inland fisheries (Indonesia).

#### **Responses of the Commission**

105. The Commission recognized the contribution of the regional GEF projects with which they have been engaged and noted that the outputs of these projects have relevance to fishery management and capacity in the region.

106. It was particularly noted that the work on trawl fishery management under the REBYC-II project are especially pertinent in all countries where there are multi-species trawl fisheries. The Commission emphasized that there is a need for dissemination of the results to member countries that had not been involved in the project.

107. The Commission was informed that there is potential for further engagement through other programmes in the region and potentially through upcoming programmes such as the second phase of BOBLME. The linkage to SEAFDEC in the REBYC-II project also offers an excellent mechanism for dissemination to and capacity building with other SEAFDEC member countries.

108. The Commission noted the GEF LDCF projects being developed related to climate change adaptation in the fisheries and aquaculture sector and requested that there be an effort to develop a regional project that could build on country projects and programmes. This could take the form of a medium-sized GEF regional project proposal.

109. The Commission further noted the interest of several member countries to develop LDCF or biodiversity programme projects in inland fisheries.

110. SEAFDEC reiterated its interest to cooperate in the GEF inland fisheries project in Indonesia through its Inland Fishery Resources Development and Management Department (IFRDMD) Palembang Centre. The South Asia Co-operative Environment Programme (SACEP) confirmed its interest to cooperate in a second phase of BOBLME, particularly with regard to management of land based pollution.

111. The Secretariat welcomed these expressions of interest to cooperate from regional organizations.

## APFIC's work for the biennium March 2016 – March 2018

112. The Commission was presented with the detailed outline of the biennial work plan March 2016 – March 2018 in document APFIC/16/11 Rev 1. The calendar of activities was presented covering planned regional workshops, and regular meetings of the Commission as endorsed by the Seventy-sixth APFIC Executive Committee.

113. The Commission was informed of the recommendation of the Seventy-sixth APFIC Executive Committee for the update of the APFIC Strategic Plan 2012–2018.

114. Two regional workshops under the biennial programme are foreseen.

115. Other recurrent activity of the APFIC Secretariat included support to regional workshops and meetings of partner organizations and member countries and ad hoc technical advice.

#### Financial matters relating to the operation of the Commission

116. The budget of APFIC was reported in detail to the Seventy-fifth Session of the Executive Committee (APFIC/16/INF 04).

117. The Secretariat noted that the new planning mechanisms of FAO now made the allocation of FAO regular programme funding for Commission activities less certain and that this would require greater flexibility in planning events.

118. The Commission did not discuss the potential for a trust fund to be established. The Secretariat recommended that this matter could be considered by the Seventy-sixth APFIC Executive Committee.

#### **Responses of the Commission**

119. The Commission requested the Secretariat to proceed with an update of the Strategic Plan, which would be reviewed by the Seventy-sixth Executive Committee.

120. The Commission identified a number of thematic areas for the second fishery theme for the work of the Commission. These suggestions would be placed before the Seventy-sixth APFIC Executive Committee for selection of a theme and for the development of a detailed agenda.

- Practical adaptations for climate change in fisheries and aquaculture lessons learned and best practices from the APFIC region.
- Capturing the opportunities of the value chain to promote blue growth.

- Progress of APFIC member countries in combatting IUU fishing, with latest developments in managing fleets, fisheries and their activities, the sharing of lessons learned and capacity building in the region.
- Review of effectiveness of fishery management in APFIC member countries, the opportunities and lessons learned for using EAF as a planning framework for blue growth in fisheries.

121. The Commission endorsed a Work Plan based on the working paper (APFIC/16/11) with a number of amendments:

- The "Asia-Pacific Fishery Commission: regional review of illegal, unreported and unregulated (IUU) fishing by foreign vessels" will be revised to take into account reservations expressed by the member countries. This revised draft would be circulated for comment and endorsement by the member countries prior to publication.
- The adjusted date for the Committee on Fisheries (COFI) meeting in July 2016.
- The date for the Seventy-sixth APFIC Executive Committee meeting would be advanced to January 2017 or delayed until March 2017 to avoid a clash with national holidays in many countries during February. This would be reviewed in consultation with the host country, the Philippines.

122. The Commission endorsed the adjusted biennium work plan, which is presented in Appendix G.

## **Reports on the achievements of regional organization partners**

123. The Chair invited regional organization observers to take the floor to make short statements of their regional priorities and ongoing programmes. The observers provided the following reports.

#### **BOBP-IGO**

124. BOBP-IGO reported on a range of fishery management actions undertaken with its four member countries. These included the forthcoming review of NPOA's on MCS (under the Chittagong resolution), completion of NPOA Sharks and pilot scale trials of solar power for fishing boats. On governance, support has been provided to Maldives for the "Atolls of Maldives" Web site. Documentation of fish markets in Chennai and Dhaka has been completed and those in Colombo and Male are in progress. With the Bay of Bengal Large Marine Ecosystem Project (BOBLME), support has been provided to capacity development in EAFM. With Mangroves for the Future (MFF) and the International Union for Conservation of Nature (IUCN) recommendations have been made for cooperation in management of fisheries and environment in the Gulf of Mannar. BOBP-IGO has digitized visual archives that will be placed on the Web site. Technical support is also being provided to the Government of India on marine fisheries policy.

#### INFOFISH

125. The Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asia and Pacific Region (INFOFISH) works on market information such as trade, demand and supply. They source information and analyze trends and report through a range of media including newsletters and conferences. INFOFISH works with FAO globally and has supported a range of country projects in the region. It promotes fish products in international markets and helps develop new products and species. It carries out specific commodities conferences to update stakeholders. INFOFISH is seeking cooperative programmes with partners.

#### NACA

126. NACA has an advantage in helping to realize the exchange of knowledge within the region. It has 19 member governments, 5 programmes and 3 cross cutting areas. Some upcoming events include the ASEAN Fisheries and Aquaculture Conference and Exposition 2016: ASEAN Seafood for the World and the Eleventh Asian Fisheries and Aquaculture Forum: ASIAN Food Security for the World from 3 to 7 August 2016. This meeting will address a range of issues with technical sessions. NACA is carrying out a range of other workshops and meetings and has convened three regional workshops with FAO in support of the zero hunger challenge, regional rice and sustainable intensification of aquaculture for blue growth (SIA BG). With the Australian Centre for International Agricultural Research (ACIAR), NACA is implementing a culture based fisheries project in Cambodia. It is hoped that NACA and APFIC can strengthen cooperation.

#### SACEP

127. The focus of the work of SACEP is on environmental issues. It has eight member countries and is based in Colombo. It does not work on fisheries issues specifically but is part of the South Asian seas programme with the United Nations Environmental Programme (UNEP). SACEP is working on some of the key marine issues in the region such as marine and coastal biodiversity, coral reefs, ballast water and oil pollution. SACEP has been working with FAO on the BOBLME project survey and assessment and is looking forward to further cooperation in the second phase, through coordination, training and technical support.

#### SEAFDEC

128. SEAFDEC congratulated APFIC on progress and outlined the many common areas of work between APFIC, FAO and SEAFDEC. Activities include supporting member countries in combatting IUU, Association of Southeast Asian Nations (ASEAN)-SEAFDEC collaboration on fisheries, PSM, regional vessel record, training on port monitoring and implementation of PSM and strengthening of members state MCS. Helping member countries address bycatch is important and SEAFDEC has provided support to facilitation of the FAO GEF REBYC-II project which supports the adoption of good practice in landing of bycatch. The new Palembang (SEAFDEC-IFRDMD) inland fisheries centre will be involved in collaboration with FAO on a GEF project in Indonesia. SEAFDEC Aquaculture Department works on many issues including fish diseases and will convene a consultation meeting on 22-23 February 2016. In conclusion, SEAFDEC was looking forward to close collaboration with APFIC and FAO in future.

### **Other matters**

129. The Republic of Korea informed the Commission of their initiative to establish the FAO World Fisheries University (WFU). As a part of a commitment to further sharing knowledge and capacity building, the Republic of Korea is committed to support the establishment of the WFU under Article XV of the FAO Constitution. The Republic of Korea has committed a full financial contribution for the first ten years of operation and will continue to support operations thereafter.

130. This University will be built on the goals of FAO to eradicate hunger and achieve food security through the fishery sector. The WFU will cooperate with other educational institutions worldwide as well as linking to other FAO training programmes. The WFU proposal will be substantially discussed in the upcoming FAO COFI meeting in July 2016, for possible consideration in the FAO conference in 2017.

131. The Commission welcomed the proposal of the Republic of Korea to support the establishment of the WFU. A number of observers also welcomed the initiative. In their interventions they noted that the WFU would be of value in building capacity in fisheries and aquaculture management. Furthermore, they look forward to cooperating with the WFU.

132. The Republic of Korea thanked the Commission's support and also requested the Commission's collective support in the forthcoming FAO COFI meeting in 2016 and also at other relevant FAO meetings.

## **Election of officers**

133. The Philippines was elected as Chair country of the Asia-Pacific Fishery Commission. The Philippine delegation thanked the Commission for its selection as Chair country and was pleased to accept the Chairmanship for the biennium March 2016 to March 2018.

134. Thailand was elected as Vice-chair country of the Commission and thanked the Commission members' confidence.

135. The Republic of Korea and Viet Nam were elected to serve as members of the Executive Committee, in addition to the new Chair country, the Vice-chair country and the outgoing Chair country, Sri Lanka.

## Date and place of the Thirty-fifth Session of APFIC

136. The Philippines informed the Commission that the date and place of the Thirty-fifth Session is set for that country in first quarter of 2018. The exact dates and times will be decided following internal consultation, and will be communicated to the APFIC Secretariat in due course. The Seventh Regional Consultative Forum Meeting would be held in conjunction with the Thirty-fifth Session at the same venue.

137. The Chairperson of APFIC concluded by expressing his appreciation for the active participation of the delegates and declared the Thirty-fourth Session of APFIC closed.

## Adoption of the report

138. The Report of the Thirty-fourth Session of the Asia-Pacific Fishery Commission was adopted on 14 February 2016.

Appendix A – Agenda of the	e Thirty-fourth	Session of	APFIC
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	Opening ceremony
	Adoption of the agenda and arrangements for the Session
Agenda item 1:	Inter-sessional activities of APFIC
Agenda item 2:	Report of the Seventy-fifth Executive Committee Meeting
Agenda item 3:	Summary overview report of the outcomes of the Sixth APFIC RCFM
Agenda item 4:	APFIC regional overview of aquaculture in the Asia-Pacific region
Agenda item 5:	APFIC regional review of illegal, unreported and unregulated fishing by foreign vessels
Agenda item 6:	APFIC member country feedback on progress implementing responsible fisheries and aquaculture in the Asia-Pacific region
Agenda item 7:	APFIC regional guidance for responsible culture-based fisheries and indicators for the enhancement of inland fisheries
Agenda item 8:	Implementation of FAO regional initiative for aquaculture in the Asia-Pacific region
Agenda item 9:	Progress in FAO/GEF initiatives for regional cooperation in fishery management
Agenda item 10:	APFIC's programme of work in the coming biennium
Agenda item 11:	Reports on achievements of regional organization partners
Agenda item 12:	Other matters
Agenda item 13:	Election of officers
Agenda item 14:	Date and place of Thirty-fifth Session
	Adoption of report
	Closing of the Session

#### Appendix B – List of participants and observers

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#### Appendix C – List of documents

#### A. Working documents

APFIC/16/01	Provisional agenda and timetable
APFIC/16/02	Inter-sessional activities of APFIC
APFIC/16/03	Report of the Seventy-fifth Session of the Executive Committee
APFIC/16/04	Summary overview report of the outcomes of the Sixth APFIC RCFM
APFIC/16/05	Regional overview of aquaculture trends in Asia and the Pacific 2015
APFIC/16/06	APFIC Regional review of illegal, unreported and unregulated (IUU) fishing by foreign vessels
APFIC/16/07	APFIC member country feedback on progress in implementing responsible fisheries and aquaculture in the Asia-Pacific region
APFIC/16/08	APFIC regional guidance for responsible culture-based fisheries and indicators for the enhancement of inland fisheries
APFIC/16/09	Implementation of FAO Regional Initiative for Aquaculture in Asia-Pacific
APFIC/16/10	Progress in FAO/GEF initiatives for regional cooperation in fishery management
APFIC/16/11	APFIC's programme of work in the coming biennium
B. Information docu	iments
APFIC/16/INF 01	Provisional list of documents
APFIC/16/INF 02	Provisional list of participants
APFIC/16/INF 03	Report of the Thirty-third Session of the Asia-Pacific Fishery Commission, Hyderabad, India, 23–25 June 2014
APFIC/16/INF 04	Report of the Seventy-fifth Session of the APFIC Executive Committee, Colombo, Sri Lanka, 11–13 November 2014
APFIC/16/INF 05	Summary recommendations of the Sixth APFIC Regional Consultative Forum Meeting
APFIC/16/INF 06	2015 Regional aquaculture overview
APFIC/16/INF 07	APFIC Regional review of illegal, unreported and unregulated fishing by foreign vessels
APFIC/16/INF 08	2016 Asia-Pacific Fishery Commission (APFIC), member country questionnaire on responsible fisheries and aquaculture in the Asia-Pacific region
APFIC/16/INF 09	Report of the APFIC/FAO regional consultation "Improving the contribution of culture-based fisheries and fishery enhancements in inland waters to blue growth"
APFIC/16/INF 10	Responsible stocking and enhancement of inland waters in Asia
APFIC/16/INF 11	Report of the FAO/NACA Regional consultation on strategy and action plan for sustainable intensification of aquaculture in the Asia-Pacific region
APFIC/16/INF 12	Sustainable intensification of aquaculture in the Asia-Pacific region. Documentation of successful practices
APFIC/16/INF 13	BOBLME Strategic Action Programme

## Appendix D – Summary of conclusions and recommendations of the Sixth APFIC Regional Consultative Forum Meeting

The Sixth Asia-Pacific Fishery Commission (APFIC) Regional Consultative Forum Meeting, *"Promoting blue growth in fisheries and aquaculture in the Asia-Pacific region"* was convened at the Taj Samudra Hotel in Colombo, Sri Lanka, 8–10 February 2016.

The Meeting was attended by 54 participants from 15 countries and representatives from 9 regional partner organizations and projects. The Meeting was hosted by the Ministry of Fisheries and Aquatic Resources Development, Government of Sri Lanka together with the Food and Agriculture Organization of the United Nations (FAO) and Asia-Pacific Fishery Commission (APFIC).

#### 1. Blue Growth-type approaches are already being promoted throughout the region

The member countries and regional organizations of the APFIC region are engaged in a wide range of programmes that involve many of the key elements of blue growth. The RCFM recognized that promotion of blue growth in the fishery and aquaculture sectors will provide sustainable benefits in terms of food security, human well-being and environmental integrity.

#### 2. There is a need for clarity on the concepts and terms used for blue growth

Blue growth is often used as an alternative term for blue economy. Although the two concepts have much in common, blue economy tends to focus on marine and ocean initiatives whereas blue growth encompasses both marine, brackish and freshwaters.

#### Recommendations: clarify the concepts, definitions and terms used for blue growth

- FAO should prepare a review document outlining blue growth concepts.
- This should explain clearly how it is a way of implementing the key normative frameworks that support it.
- Such frameworks include for example: global frameworks such as CCRF, EAFM, IPOA's (IUU), PSM, VGSSF, and SDG's regional frameworks. Other non-fishery related frameworks may be linked such as: CDB, UNFCC, Regional Seas, ILO and IMO.

#### 3. Opportunities for blue growth in marine fisheries

Blue growth through application of the ecosystem approach to fisheries has been achieved in some small-scale fisheries by reduction of bycatch, improved value chain, use of selective gears, better prices for catch, and use of information technology (prices, marketing, combatting IUU and non-compliance).

In mixed catch tropical trawl fisheries where the majority of the catch is utilized, blue growth through the ecosystem approach involves reduction of overall effort and improvement of overall catch value through the use of large mesh sizes. More effective zoning of trawling to avoid impacts on sensitive habitats in nearshore zones can contribute to containing the impact of these fisheries within sustainable limits.

The RCFM cautioned that growth in many capture fisheries may not be achieved in terms of increased production.

- Improved management in these fisheries will typically require a reduction in fishing effort.
- Economic growth can be achieved through reduction of wastage and improved value of catches and reduction of loss from IUU fishing.

- Blue growth in a fishery cannot be achieved where there are significant IUU fishing activity.
- Maintaining current levels of employment in many coastal fisheries is unlikely to be possible in their current state.
- Blue growth through stock recovery, improving efficiency in marine fisheries may involve reduction in effort and the number of fishers.

Recommendations: Support recovery of overfished or overexploited capture fisheries to ensure that they can make an optimal contribution to blue growth.

- This would involve developing fishery management plans which implement the Ecosystem Approach to Fisheries.
- Economic growth is such fisheries can still be achieved through reduction of wastage and improved value of catches and reduction of loss from IUU fishing.
- Maintaining current levels of employment in many coastal fisheries is unlikely to be possible in their current state.
- Blue growth through stock recovery, improving efficiency in marine fisheries may involve reduction in effort and the number of fishers with appropriate compensation or mitigation.
- There is a need to have mechanisms to address loss of fishing opportunity through introduction of seasonal bans or other management.

Recommendations: Develop blue growth plans using an EAF approach. In many cases where increased production is not possible, fishers could still benefit by an improved value chain, reduced losses and reduced IUU fishing.

- There is a need to undertake fishery surveys and assessments of fisheries to ensure that plans for recovery of stocks and in order to set realistic targets for fishing capacity and fishing effort.
- These should be supported with better identification of critical habitats and seasons and the integration of relevant measures into EAF management plans.
- There is a need to work harder to integrate related sectors towards more holistic blue growth planning, in particular the linkages between land and water.
- Rehabilitation of degraded habitats, protection or Locally-Managed Marine Area (LMMA) strategy and other environmental strategies are necessary.
- Capture the opportunities for employment that arise from environmental restoration.
- Improve vessel registries and vessel licensing.
- Reduction of subsidies.
- Combat IUU fishing.
- Fuel efficiency and reduced cost of operations.
- Research and development in new technologies, particularly those that reduce environment or climate footprint and increase economic benefits.
- Promote decent work, safety at sea and address labour issues including transboundary migration.

#### 4. Blue growth in inland fisheries

Much of the focus for blue growth in inland fisheries lies in the potential to increase the productivity of inland waters. This can be achieved through enhancement, habitat manipulation and stocking.

However, the major threats to inland fisheries come from external competitors for environmental services, especially water developments and also land use changes. Urbanization and industrialization are also increasingly impacting inland waters. Blue growth, therefore may not seek to increase productivity, but rather secure its sustainability and the economic benefits it generates.

#### Recommendation: Sustain ecosystem services critical for inland fisheries.

- Maintain environmental flows and freshwater connectivity between habitats.
- Manage critical habitat for spawning, nursery, refuges.
- Promote fish friendly irrigation/hydropower structures.
- Promote sustainable floodplain fisheries and stock enhancements.
- Develop, restore and manage key habitats.
- Use indigenous of species.

# Recommendation: Promote monitoring and knowledge for management

- Base fishery management planning on strong information base using Local Ecological Knowledge, scientific knowledge, fishery assessments, monitoring.
- Work with other sectors to reduce or minimize nutrient loadings and runoffs to water bodies.

# Recommendation: Support and empower inland fishers

- Promote inland fishery stocking programme in small water bodies, based on publicprivate financing.
- Improve genetic quality of seed from freshwater hatcheries and impose stricter quality controls on fish stocked into freshwaters.
- Allocate fishing rights.
- Improve value chain and marketing.

# 5. Opportunities for blue growth in aquaculture

The RCFM agreed that blue growth in aquaculture can contribute significantly to meeting the increasing demand for fish in the Asian region. Blue growth in aquaculture will require both improved efficiency of production, sustainable intensification as well as expansion of production area in the region. In countries with very limited aquaculture development to date, rapid growth in aquaculture may be expected with technology transfer and uptake as the demand for fish and prices rise.

# Recommendation: Strengthen planning and regulatory framework

- Promote sustainable intensification of aquaculture within a blue growth framework.
- Increase emphasis on the management of aquaculture, including the need to zone, license farms and develop within the carrying capacity of local environment.
- Strengthen legal framework to ensure blue growth principles that are backed up by laws/ regulations.
- Identify sites for expansion of mari-culture/aquaculture.
- Develop zoning and carrying capacity plans.
- Undertake seabed and open water (e.g. reservoirs/lakes) allocation ensuring that marginalization or displacement of fishers are avoided.
- Strengthen biosecurity to limit the transmission of disease(s).
- Apply precautionary approaches related to movements and introductions.

Recommendation: Promote innovations in culture systems and technology that allow higher productivity, greater intensity of production and more efficient use of inputs.

- Promote shift to lower trophic level species.
- Explore potential of smaller indigenous species and lower trophic level species.
- Improve seed production technologies to explore benefits of new species.
- Avoid or ban wild seed use for stocking in aquaculture (linked to hatchery development).
- Reduce feed use and dependence on fish meal and use more efficient feed.
- Produce fish meal alternatives.
- Reduce chemical use in culture operations, assisted by GAP.
- Explore species which have tolerance to potential climate change effects (salinity, temperature etc.).
- Reduce carbon footprint of aquaculture operations.
- Explore the scope for increased participation of women in aquaculture.
- Develop private aquaculture insurance programmes.
- Develop mariculture as a means to offset declining fishery revenues and livelihood.
- Maximize the potential of IT for aquaculture management, e.g. increasing availability of IT applications (e.g. smart phone applications) that can be used by small-scale farmers for improving feeding efficiency, aeration efficiency and energy saving.

Recommendation: Promote integrated culture systems as a means to reduce environmental footprint and improve the efficiency of nutrients utilization.

- Develop systems that reduce overall input use or increase input use efficiency to capture benefits and allow economic growth without necessarily requiring increasing production.
- Develop integrated zero-discharge systems and integrated multi-trophic systems for coastal and freshwater aquaculture.
- Develop aqua-silviculture, integrated systems, which can be certified, and although low yielding, can produce profitability with limited risks of crop failures.

# 6. Capturing the potential of the value chain

There is a need to increase the opportunities for local communities to benefit from their production (i.e. find ways to move benefits back down the value chain). Well informed blue initiatives including application of EAFM will help producing countries to be better prepared and even avoid potential non-tariff and market measures imposed by importing countries.

# *Recommendation: Try to capture opportunities of certification/fishery improvement/GAP and better marketing.*

- Establish good aquaculture practice (e.g. *Pangasius* production after the rapid growth
  of this sector, the focus moves to quality assurance and traceability at farm and
  processing levels to respond to the requirements of the value chain.
- Develop national certification schemes in line with international schemes and which also provide the relevant assurances.
- Develop fishery improvement plans using EAF and links to markets.
- Look for incentives such as price premium for organic or mangrove-friendly certification. These systems can be a driver for rehabilitation of degraded coastal environments. The ratio of farm/pond to mangrove habitat is variable but more economic data on the profitability of different systems is needed.

Recommendation: Promote increased preparedness to address non-tariff barriers with trade from importing countries.

- Improve certification and value chain, improve traceability, improve food safety.
- Make efforts to harmonize standards required for trade and import of aquaculture products to facilitate trade and reduce inefficiencies and losses caused by different standards and requirements.
- Develop food safety systems and quality control capacity.
- Promote aquaculture product standards.
- Promote and develop of new products from seafood, value adding and product transformation.
- Promote GAP for key systems and commodities.
- Include carbon footprint into production system information.
- Explore the potential for carbon credits for some production systems.
- Seek alternative ways for post-harvest processing that are less reliant on use of the fuelwood etc.

#### 7. Climate change responses

Blue growth is climate smart and there are a range of ways to capture opportunities in existing or innovative production systems in both capture fisheries and aquaculture.

Recommendation: Seek ways to adjust or improve system to reduce their carbon footprint, adapt to changing climate and increase their resilience.

- Promote reduced energy footprint production systems (e.g. integration and use of renewable energy).
- Improve fuel efficiency in fishing and aquaculture operations.
- Adapt existing systems to make them more climate resilient.
- Restore and rehabilitate fisheries habitat as carbon sequestration as well and improve ecosystem services (including erosion control, water retention, flood mitigation, sediment trapping etc.) in both marine and freshwater systems.
- Establish carbon credits and carbon sequestration (e.g. blue carbon).
- Undertake the culture of low trophic level species using lower footprint feeds.
- Explore the potential of biofuels (e.g. seaweed biomass).

#### 8. Adequate safeguards and precautions

Countries are becoming interested in blue growth and the RCFM cautioned that to be truly "blue" there must be safeguards built in that ensure human and environmental well-being. This requires: the use of clean technology; sustaining environmental services; equitable access and safeguarding of rights; minimization of environmental impact and economic viability. It is important that the enthusiasm for the potential for blue growth does not lead to an unplanned rush into blue growth initiatives. There is usually not enough information to adequately plan all the safeguards to ensure that blue growth initiatives meet expectations.

Poorly conceived blue growth initiatives may conflict with small-scale fisheries. There is a concern that large-scale developments may impact the tenurial rights of fishers, particularly where these rights are already poorly defined. New production systems, conversion of fishing areas to aquaculture, large-scale investments may result in displacement of fishers or loss of access to fishery resources

by the small-scale sector. Introduction of stocking and culture-based fisheries may also result in loss of access to the fishery by some of the existing users. Investment in value chains or larger more efficient landing sites can disadvantage existing traders and port harvest operators including women.

# Recommendation: Clarify the linkages between the VGSSF and blue growth and build into safeguards.

- The recently agreed Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (VGSSF) support the visibility recognition and rights of small-scale fisheries.
- As a complement to the CCRF they also underpin "blue growth". In this regard the VGSSF give context and guidance on how to ensure that blue growth initiatives can contribute positively to small-scale fisheries.
- This can be directly in application of blue growth to small-scale fisheries and also where blue growth initiatives are initiated in larger-scale fisheries and aquaculture, that these initiatives do not undermine or compromise small-scale fisheries.
- A true blue growth initiative would not conflict with the spirit and recommendations of the VGSSF.
- Effective implementation of VGSSF should also be considered blue growth.
- Adequate consultation needs to be undertaken before initiating new blue growth programmes and these programmes should be reviewed for their coherence with the guidance in the VGSSF, CCRF etc.

# Recommendation: Develop adequate safeguards and precautions.

- Countries should ensure that key safeguards are built into national policies, laws and plans for planning and implementation of blue growth initiatives.
- Good practice in development should be followed.
- Ensure that gender mainstreaming is built into blue growth initiatives.
- Organizations and countries supporting implementation of blue growth initiatives should develop clear frameworks for integration of good practice.
- Pilot initiatives provide the opportunity to learn from mistakes and adjust the approach.

Recommendation: Blue growth should not push inappropriate technology or drive producers into production systems that are beyond their financial or technical capacity to manage sustainably or economically.

- Intermediate technology approaches may be more robust and more appropriate in the short to medium term.
- Transitioning to more complex systems could take place over time.

# 9. Knowledge to support blue growth

The development of fishery sector management plans designed to help stock recovery need to be based on improved fishery assessments. Assessment of marine capture fishery resources is essential for sustainable management. In many fisheries there remains serious gaps in knowledge regarding the determination of sustainable levels of fishing effort and catch. In inland fisheries, long-term monitoring of fisheries in the Mekong river basin shows some declining trends in catches for large- and medium-sized species. Catch per unit effort (CPUE) is also declining in those fisheries being monitored. Exotic species in the lower Mekong basin area now comprise 3 percent of wild fishery catch (tilapia, pacu, sucker catfish), but may reach up to 30 percent in some localities. These are mainly escapees from cage aquaculture, although some species have become established in some localities. This highlights the need for effective monitoring to inform management. Mariculture development is a relatively new initiative in many areas and thus requires a mixture of knowledge development and a precautionary approach to ensure it is a blue growth type activity.

# Recommendation: Strengthen the assessment and monitoring of fisheries.

Recommendation: Improve understanding of the potential for blue growth.

- Develop cross-sectoral information systems that facilitate closer coordination and information exchange between stakeholders.
- Promote greater sharing of positive outcomes of blue growth initiatives.

# *Recommendation: Improve communication of science and local knowledge to support management decision making.*

 There remain considerable challenges to effectively communicate management measures to fishers and to incorporate science-based information into the development of these measures especially when using the Ecosystem Approach to fisheries.

# *Recommendation: Improve monitoring of intensive aquaculture development and develop carrying capacity models for different systems.*

- Monitor the impacts (environmental, social, economic) of aquaculture and mariculture development to ensure that they are contributing positively to blue growth.
- There remains a significant need to generate technical knowledge on carrying capacities for different tropical/warm water marine and aquatic environments to support effective planning and zoning of blue growth aquaculture development and to support effective integration of different components of integrated systems.

#### Recommendation: Conduct valuations of different production systems.

 The true values of marine and inland capture fishery, aquaculture and integrated systems, and the costs and benefits of recovery of degraded systems are needed to provide persuasive economic arguments for blue growth.

#### 10. Coordination with the private sector and consumers

There is a need to coordinate the business and private sectors and the consumers as major drivers of the investment and market demand in blue growth. It is important to ensure that their investments and actions promote blue growth.

# 11. Opportunities for regional cooperation

There is potential for developing a regional cooperation programme for promoting blue growth, in particular, focusing on how to ensure that blue growth initiatives are truly blue. Identified areas for cooperation which would support the promotion and implementation of blue growth include:

#### Marine fisheries

- Capacity building in fishery surveys and stock assessment and management planning.
- Joint action plans for identified shared or transboundary stocks.
- Training in EAF using the regional EEAFM training course.
- Regional cooperation on PSM.
- Training in vessel inspection, VMS and MCS.

#### Inland fisheries

- Cooperation in inland fisheries management.
- Transboundary cooperation on habitats, environmental flows and stocks.

#### Post-harvest and value chain

- Knowledge sharing on fishery product development and diversification, particularly post-harvest processing and utilization.
- Business to business, business to government, fisherman platforms for knowledge sharing and lessons learned.
- Communication with consumers regarding the competitiveness of blue growth products and linkage of demand to supply.
- Exploring opportunities for blue growth systems and products in bilateral and multilateral trade agreements.

#### Knowledge and awareness

- Development of and communication of best practices;
- Development and piloting a regional programme for promoting each blue growth approach.
- Exchange of knowledge and training on lessons learnt, innovative systems and approaches.
- Science policy platform that would also facilitate the translocation of science advice and policy to producers (e.g. Coral Triangle fisherman forum and Coral Triangle business forum).
- Promotion of greater research cooperation related to blue growth both regional and international.

# Appendix E – Responses by member countries on agenda item 6

# Bangladesh

Bangladesh has amended and promulgated new acts and rules to cover and intensify the aquaculture development and monitoring process. This includes the registration and annual licensing of fish feed and hatchery operations. Inland capture fisheries regulations introduced are in line with the EAF and cover areas and seasonal closures for restrictions on catches of juvenile hilsa. As Bangladesh is the major spawning area for hilsa, effective restrictions on catches of juveniles and fishery closures during the peak spawning season have seen a doubling of the catch over the past decade. This has been supported by a fisher's compensation scheme under the social safety net coverage during the fishing restriction period. For improving biodiversity and enhanced production, inland fisheries have developed over 500 sanctuaries and an enhancement programme for major carp involves stocking and the use of natural depressions and floodplain nurseries to on grow fish for release programmes is in place. In the marine fisheries, a number of precautionary approaches have been put in places, such as: imposed season closure for 80 days for spawning and conservation and its enforcement; increased surveillance to thwart illegal entry of foreign trawlers; installing Vessel Monitoring Systems (VMS) and enforcement conducted to eliminate destructive fishing gear and methods; imposed ban on bottom trawling; encourage deep and distant water fishing are being implemented.

# Cambodia

Cambodia informed the Commission of the strengthening of a range of fisheries laws and regulations to improve the management, conservation and development of the sector. The sub-decree on community fisheries has been updated. This has been accompanied by the development of a new ten-year strategic plan for fisheries (SPF) for 2015–2024. A range of measures have been introduced to improve inland capture fisheries including fish dry season refugia, broodstock conservation zones and zoning actions. Fish stocking activities also take place. Standards for traditional local made fish and fisheries products such as "Prahoc" (Fish paste) and dried fish (Trey Ngiet) have been developed and applied to improve marketing and value. Both products are unique to Cambodia. These standards will be shared as regional fish and fisheries product standards for the regional country members after their successful piloting through the One Village One Fisheries Product (FOVOP) strategy. A strategic plan and action plan for climate change response in the fisheries sector of Cambodia has been developed and harmonized into the strategic plan and action plan for climate change responses in the agriculture, forest and fisheries sectors of Cambodia. Both are harmonized in the national strategic plan and action plan for the climate change response in Cambodia. Some species have been developed for aquaculture along with the development of Good Aquaculture Practices (GAP) guidelines. A taskforce for aquaculture development has been established and zoning for aquaculture is being undertaken. In marine fisheries IUU has been addressed with the initiation of an NPOA-IUU. This is being accompanied by the development of a database for the registration and licensing of fishing vessels. Cambodia has emphasized the importance of getting fisheries and aquaculture into the school curriculum and practice as early as primary education. In terms of promoting fisheries and aquaculture into communities, the value of using a Farmer Field School approach was noted.

# China

China emphasized the importance of taking actions supporting sustainable aquaculture development for blue growth. Since aquaculture production currently accounts for 76 percent of China's fish production, this sector is of major importance. In this regard China has been

implementing a range of actions aimed at improving the quality and sustainability of aquaculture production. Many of these actions are aimed at improving the production environment and reducing the environmental impact of aquaculture operations. Additional actions have focused on improving biosecurity and implementing stricter controls over the use of chemotherapeutants in aquaculture production. Record keeping and traceability systems have been introduced to improve the tracking of production. China reiterated the need for greater regional harmonization of standards for inputs and production systems in order to improve regional and global trade, in particular to facilitate market access. China expressed its interest in cooperation to promote rice-fish culture and other production systems that have been successful and that could contribute to blue growth in the region.

# Indonesia

Indonesia noted that it was taking action in the marine and inland fisheries and aquaculture sectors in line with the recommendations of the previous session of APFIC. The importance of rice-fish systems were highlighted as an excellent example of blue growth and how benefits to fish production, rice production and the ecosystem could be achieved through this sort of integrated system.

#### Japan

Japan is piloting an approach to the development of fisher-inclusive marine protection areas (MPA) in Okinawa that involves a co-management approach with fishers. Although many MPAs involve complete protection, the approach being used is one where fishing is integrated into the MPA management.

#### Malaysia

Malaysia is in the final stages of developing inland fishery rules for the governance of aquaculture. These are based on the 1995 Fishery Acts and will cover every aspect of aquaculture production and management. Monitoring of aquaculture farm production, shellfish monitoring, a disease surveillance system and fish health monitoring are now in place. The associated service sector for aquaculture is also coming under increased monitoring with actions to ensure standards are met for feed mills and processing plants. Action is being taken to strengthen fishery management using an EAF approach. A national Steering Committee for EAF has been established and three EAF training courses have been completed. Fifty-six EAF "champions" have been trained from among government, NGO and state officers. There is now an annual EAF training programme accompanied by a training of trainers programme. Some of these programmes have been adapted and simplified to make them more accessible to fishers, and fishery operators and stakeholders.

#### Myanmar

Myanmar informed the Commission that its fisheries governance was currently under reform. The management of fisheries was now decentralized to sub-national level and rules and regulations were being developed. Some works on VGSSF are being undertaken between the Department of Fisheries and an NGO. For improved marine capture fisheries management there is an ongoing initiative to install VMS and to strengthen registration and licensing.

#### Nepal

Nepal noted that there has been a major change in the governance of the aquaculture sector in recent years. A new fisheries policy has been drafted along with a new national umbrella biosecurity policy. Similarly, arrangements have been made whereby fisheries officers work alongside veterinary

officers on fish quarantine matters. There is a major gap in inland fisheries governance in the country as the only management instrument is the Aquatic Animal Protection Act, which is designed more for conservation purposes. However, the gap will now be bridged through the approval and implementation of newly drafted comprehensive fisheries policy. In addition, Nepal is about to start drafting the National Aquaculture Act and to approve the already drafted Fish seed Act. Moreover, as the new constitution has endorsed food rights for the people of Nepal, the production of more nutritious food and increased aquaculture productivity are considered necessary. Furthermore, a 20 year agriculture development strategy has been adopted by the government and fisheries is included in this as flagship programme. Efforts are also being made for quality production of inputs as well as outputs through awareness-raising of the need to adopt GAP and Good Manufacturing Practices (GMP) by all concerned.

# Pakistan

Pakistan has taken many initiatives for blue growth in the fisheries and aquaculture sector. Pakistan has sufficient rules and regulations for the observance of closed seasons in marine and freshwater bodies including rivers. Pakistan has developed many quality control laboratories which are providing certification for export of fish and fisheries products to the European Union and the United States of America and other countries. Aquaculture (inland) is expanding in Pakistan. Pakistan is providing training to fisheries officers/officials and private fish farmers. FAO Pakistan has launched a TCP on Good Aquaculture Practices in Punjab and Balochistan. The Fisheries Development Board has successfully completed a training programme for private fish farmers in Pakistan with the financial support of the German Government (GIZ). Fish biodiversity in Pakistan is being addressed by a specific programme through which the fish seed is stocked in rivers and large reservoirs to replenish the natural fish biodiversity resources. Pakistan is taking action to combat IUU fishing in its marine territory by installing a VMS on all deep sea fishing vessels. Pakistan's Maritime Security Force is doing their utmost to control the oceanic territories. Moreover, the Pakistan Government understands the need to coordinate its activities with those of the private sector as it is a major driver of investment in blue growth in aquaculture and fisheries.

#### **Philippines**

The Philippines has undertaken amendments of the fisheries legislation. Recently it has introduced VMS and onboard observer schemes to commercial operators. In small-scale fisheries there have been initiatives to introduce zoning and the allocation of rights and to introduce closed seasons. Training in the ecosystem approach for fisheries has been provided to government officers, local government units and fishers. Inland fisheries management focuses on biodiversity issues, although there is some development of culture-based fisheries. Aquaculture legislation has been amended and codes of practice have been issued. Farm registration and tracking has been put in place, including GAP. Standards on aquaculture commodities and some inputs have been developed.

# Thailand

Thailand has recently reformed its fishery legislation and a new fishery ordinance has come into force as of November 2015. Additional actions to strengthen fishery management include a recently concluded NPOA-IUU and a national marine fishery management plan. Significant efforts have been made to strengthen the ability to combat IUU fishing including the introduction of mandatory VMS on vessels operating in third country waters. Training and capacity building is also taking place in improved port inspection procedures. In the aquaculture sector, Thailand expressed the need for enhanced cooperation amongst ASEAN member countries to harmonize regional standards and move towards regional GAP. This would be accompanied by greater harmonization of standards relating to aquaculture feed inputs and feeding systems and traceability systems.

#### **United States of America**

The United States of America informed the Commission of the Presidential Task Force on IUU and Seafood Fraud (now presidential initiative). This has the purpose of ensuring that US Federal agencies coordinate and collaborate in order to effectively combat the issues. Of the 15 recommendations that cover the Port State Measures Agreement, two recommendations detail the steps necessary to develop a traceability programme which will track domestic and imported seafood products from harvest or production to the point of entry into USA commerce. This programme will be phased in by species with significant risk of IUU fishing and seafood fraud in their global supply chain with the aim to help prevent the entry of illegal seafood product in USA commerce. As part of an effort to increase domestic mariculture production, NOAA Fisheries is now authorized to issue permits for federal waters in the southeast of the United States of America (Gulf of Mexico). The species cultured will have to be native to the area. Under a proposed new rule, nations exporting fish and fish products to the United States of America would be required to demonstrate that marine mammal bycatch in their export fisheries do not exceed comparable USA standards. These proposed regulations would establish conditions for evaluating a harvesting nation's regulatory programme for reducing marine mammal incidental mortality and serious injury in fisheries that export fish and fish products to the United States of America. It would be applied on a fishery-by-fishery basis and likely to become effective in late 2016, with a five year period for trading partners to seek comparability findings.

#### Viet Nam

On 16 August 2013, the Government of Viet Nam issued the decision to approve the Fisheries Development Master Plan to 2020, vision to 2030. The goal is the comprehensive and sustainable development of the fisheries sector such that it becomes a large production sector that protects the ecological environment and fisheries resources. This aim is a stable fishing production of 2.2 million tonnes from the marine capture fishery by 2020. By 2020, the total number of fishing vessels should decrease to 110 000, an average decrease of 1.5 percent per year. This will be achieved through the planning of the capture fisheries sector to reduce impacts on aquatic resources through the development of environmentally friendly fishing methods. The Ministry of Agriculture and Rural Development has issued regulations banning the construction of new trawlers to reduce fishing effort by trawling and contribute to the protection and sustainable development of coastal resources. Training in the EAFM has also been implemented and EAF applied in management planning in the coastal provinces. The REBYC-II CTI project helped Kien Giang province (this province has the largest number of trawlers in Viet Nam) to formulate a management plan for trawlers in the province and at the national level. There should also be considerable success in promoting responsible aquaculture, through the application of GAP (VietGAP) to protect the ecological environment, prevent disease, ensure food security, and improve product quality. From the end of 2013 to 30 October 2015, 75 farms on a total of 6 860 576 ha were certified by VietGAP.

# Appendix F – Members' comments on actions to combat IUU fishing

# Bangladesh

The resolution of the Bangladesh exclusive economic zone (EEZ) has allowed more effective enforcement and some of the previous IUU fishing activity has been stopped. Although bilateral arrangements are in place, IUU incidents continue. Mostly this is by national vessels, and some small-scale vessels. Larger vessels are now registered although they are not fully reporting their catch. Observations are not possible as there are over 200 boats. Bangladesh is also in the process of developing an NPOA. Bangladesh commented that it would appreciate assistance in combatting IUU fishing.

# Cambodia

Cambodia has recently started an NPOA-IUU fishing process. As this is a relatively new experience, Cambodia requested expert support. Cambodia also supported the proposal by Thailand of a joint declaration amongst members to combat IUU fishing.

# China

China supports efforts to combat IUU fishing and has taken a range of actions including: enhancement of multilateral cooperation with RFMOs and bilateral fishery agreement with third countries. China has carried out enforcement and inspections. China is keen to enhance bilateral cooperation with other countries and would like to work with partners to combat IUU fishing.

#### Malaysia

Malaysia has established an NPOA-IUU fishing. Malaysia further proposed that more countries should join the RPOA-IUU to increase regional cooperation.

#### Pakistan

The Federal Government of Pakistan has devolved the function to the provincial government. The Federal Government has retained control of deep sea fisheries beyond territorial waters. Import and export is also the responsibility of the Federal Government. The government is developing its deep sea fishery policy to make it fishers friendly. Pakistan has carried out a number of activities to address IUU fishing including VMS and engaging the maritime security agency.

#### **Philippines**

The Philippines has passed IUU fishing regulations and laws after long negotiations with fishers. This legislation covers both commercial and small-scale fishers. VMS has been installed on many vessels. The original impetus for taking action was an IUU yellow card from the European Union. Having taken corrective actions the yellow card has been lifted and the benefits are now being felt.

#### **Republic of Korea**

The Republic of Korea informed the Commission that it had previously been on a provisional list for IUU fishing, however it has invested significantly in addressing the concerns through actions such as: compulsory registration, establishment of VMS and a fisheries monitoring centre establishment, strengthened MCS, a hotline for IUU fishing. The Republic of Korea has now been removed from the provisional list of countries.

# Sri Lanka

Sri Lanka has been working on IUU fishing since 2012 but recent progress has been made since receiving a red card from the European Union. Subsequently much work has been done including: development of an NPOA-IUU, strengthening legal frameworks, implementation of port measures, vessel inspections, introduction of a VMS system for multiday boats. Sri Lanka recommended that APFIC should update and maintain a report of IUU fishing issues and actions to combat these and to be reported in future sessions.

# Thailand

Thailand has been taking a series of actions to address concerns regarding IUU fishing including development of a new Fishery Act and associated provisions for improved management of fishing vessels. Thailand is willing to share information on this experience and cooperate more fully on combating IUU fishing. In this regard, Thailand proposed a joint declaration between APFIC member states for cooperation to combat IUU fishing.

# Viet Nam

The Ministry of Agriculture and Rural Development has issued an NPOA-Capacity long-term plan to help the fisheries sector to manage fishing capacity effectively and contribute to the sustainable development of marine fisheries under the guidance of CCRF. Combating IUU fishing has been improved and implemented from central and local levels as the NPOA-IUU fishing is supported by FAO.

# **United States of America**

The United States of America complimented APFIC Secretariat for this ambitious review noting it was the first regional review that attempted using open source materials and key informant knowledge in the region. Noting the challenges in undertaking this review, the United States of America suggested that this could be updated on a regular basis with inputs from the APFIC member countries. In addition, the United States of America has ratified the PSMA (February 2016). This, in conjunction with the Presidential Initiative on Combating IUU fishing and Seafood Fraud and other current legislation and programmes (e.g. Sea Scout) will help the United States of America become a stronger partner to APFIC members in addressing IUU fishing and seafood fraud.

# Appendix G – Endorsed workplan

March 2016	Communication of the report and recommendations of the Thirty-fourth Session of APFIC to member countries and FAO.
	Finalization and publication of the APFIC "Regional overview of aquaculture in Asia and the Pacific 2015."
April 2016	Revision of the "Asia-Pacific Fishery Commission: regional review of illegal, unreported and unregulated (IUU) fishing by foreign vessels."
July 2016	"Asia-Pacific Fishery Commission: regional review of illegal, unreported and unregulated (IUU) fishing by foreign vessels" sent to member countries for comment.
	APFIC Secretary will participate in the Thirty-third Session of COFI and the Seventh Meeting of the Network of Secretariats of Regional Fisheries Bodies (RSN) at FAO headquarters in Rome.
August 2016	Finalization of the publication "Asia-Pacific Fishery Commission: regional review of illegal, unreported and unregulated (IUU) fishing by foreign vessels."
	FAO/APFIC will convene a regional consultative workshop entitled "How innovation and improvements in aquaculture feeds and feeding in the Asian region can contribute to blue growth." This was identified by the Commission as a priority theme.
March 2017	The Seventy-sixth Session of the Executive Committee of APFIC meets in March 2017 to:
	<ul> <li>(i) review outcomes and recommendations of the APFIC regional consultative workshops;</li> <li>(ii) review APFIC publications;</li> </ul>
	(iii) review the updated strategic plan 2018–2024;
	<ul> <li>(iv) deliberate and decide on the fishery theme and develop an agenda for an APFIC regional consultative workshop;</li> </ul>
	(v) propose recommendations for the Seventh RCFM;
	(vi) review the APFIC budget, including options for an APFIC trust fund;
	<ul><li>(vii) identify emerging issues, policy and recommendations for future focus of APFIC's programme of work; and</li></ul>
	(viii) develop the agenda for the Thirty-fifth Session of the Commission to be held in March 2018.
March– November 2017	APFIC Secretariat commences liaison and background information collection from APFIC members and key national and regional correspondents for the preparation of the requested reviews and monitoring (see above).
May 2017	FAO/APFIC will convene a second regional consultative workshop on the identified Commission priority theme. This will be finalized by the Seventy-sixth APFIC Executive Committee.
September/ October 2017	APFIC Secretariat sends invitations for the Thirty-fifth APFIC Session to all members, regional and sub-regional organizations and arrangements with relevance to fisheries/aquaculture in the APFIC region.
November– December 2017	APFIC Secretariat sends out the working papers and information documents for the Thirty-fifth APFIC Session to all members, regional and sub-regional organizations and arrangements with relevance to fisheries/aquaculture in the APFIC region.

March 2018	The tentative date for the convening of the Thirty-fifth Session of APFIC will be March 2018.
	The Seventh RCFM will be organized immediately preceding the Thirty-fifth Session of APFIC.
	The intention is that the recommendations of the Thirty-fifth Session could be communicated to FAO prior to Thirty-fourth Session of Committee on Fisheries (COFI) to be convened in July 2018.



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