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Implementation of the FAO Regional Initiative on Blue Growth in Asia-Pacific						

BACKGROUND TO THE FAO REGIONAL INITIATIVE ON BLUE GROWTH

1. Fisheries (capture fisheries and aquaculture) is an important food production sector in Asia-Pacific, which contribute 55% to global capture fisheries production and 92% to the world aquaculture production. Fisheries supplies 23.1 kg of food fish to Asian population in 2013, which comprised 22.9% of animal protein and 7.9% of total protein in food of the people. Meanwhile, Fishing and aquaculture production provided some 48 million jobs directly and millions more employment in related manufacture, processing and service sectors. Marine and inland water ecosystems and aquaculture biodiversity are most important resources and service providers to social and economic development in the region.
2. In order to contribute to the sustainable development goals, capture fisheries and aquaculture sectors have been assigned important tasks to support the food security and improved nutrition and eradication of poverty through realizing blue economic growth (sustainable growth of economies derived from marine and inland water ecosystems and living aquatic resources) with responsible and efficient use of marine and inland water and associated natural resources and conservation of marine and inland water ecosystems and aquatic biodiversity. Given the global leading position of Asian fisheries in production and direct dependence on the sector, the Asia and Pacific Region will need to take a leading role in achieving the goal considering its current share in global fish production and trends of the sectoral development in the different regions.
3. While recognizing the potential for Asia and Pacific Region to play a key role in achieving blue growth, given its advantages in natural resources, scientific and technological advancement, well established human capacity and sectoral structure and general favorable policy environment, many countries face various challenges in realizing such potential.

Aquaculture faces increasing competition for land and water resources from other sectors

4. The rapid growth in production from aquaculture in the Asian region over the past three decades has largely been the result of two major factors: a) the expansion of culture areas and b) intensification through technological advances and increased use of feed and other resources. While this growth of Asian aquaculture has contributed to food security and rural livelihoods, it

has also resulted in significant environmental impacts from some production systems and practices. It is expected that there will be significant expansion of aquaculture in most countries of the Asian region in the future, and similarly, freshwater aquaculture systems that use large volumes of water will be forced to improve their water use efficiency or better integrated into agro-aquaculture ecological production systems. Although marine and brackish water aquaculture rely less on freshwater, they represent significant challenges in terms of maintaining environmental quality and land use in coastal areas. Agricultural and coastal land is now at a premium in most Asian countries, which inevitably means that expansion of aquaculture production areas will come at a cost to other forms of land use. In some cases, this may be transformation from other forms of agriculture (e.g. rice); elsewhere, this may have implications for conversion of aquatic ecosystems, such as wetlands. Most countries in the region have taken steps to reduce the conversion of coastal forest, however, limited freshwater, high prices for seafood and the lack of other land may increase pressures to convert coastal forests and land for brackish water aquaculture.

Impacts of intensification and species shifting in aquaculture capture fisheries and environment

5. Important trends of aquaculture development in the past include the intensification and shift towards species heavily depending on high animal protein in order to meeting the changing market demand and achieving better economic efficiency. This presents feed resource challenges and in particular linkage to capture fisheries which currently provide nearly all the fishmeal utilized in aquaculture feeds and or fish as direct feed in aquaculture in the region. This has stimulated fish pressure to certain extent and impacted the natural resources.
6. Intensification of aquaculture demands heavy use of commercial feed, energy and chemicals and outsourced seed of cultured fish, crustacean and other aquatic animals, which may results various problems. Heavy feed and energy input in intensive aquaculture can significantly contribute to GHS emission. The effluent from intensive aquaculture installation can have serious impacts on the local environment. Trans-boundary movement of animal seed can significant increase the risk of epidemic diseases and food and environment safety issues resulted from the prevention and treatment of the diseases.

Impact of IUU fishing on wild fish stocks and economies

7. With the enacting of FAO Code of Conduct for Responsible Fisheries (CCRF) in 1995, most countries in the region have taken actions to combat Illegal, Unregulated and Unreported (IUU) fishing. Largely due to lack of required strong political will, implementation capacity and complexity of the issue, the progress has been made so far is still far from satisfactory. It is estimated that IUU fishing activities are responsible for the loss of 11-26 million tonnes of fish every year for an economic value of US\$ 11-23 billion in addition to the damage to wild fish stock and natural habitats. The coming into force of the FAO Port State Measures Agreement (PSMA) and recent trade/market-based interventions from importing countries, along-side consumer labelling efforts, have stepped up the urgency to combat IUU within the Asia Pacific Region.

Overfishing and its deleterious effects on the Sustainable Development Goal 14

8. Globally, almost 30% of assessed marine stocks are estimated as fished at a biologically unsustainable level and, therefore, overfished and there is a paucity of information on the status of inland fisheries resources. Overfishing does not only cause negative ecological consequences, it also reduces fish production, which further leads to negative social and economic consequences. For example, it is estimated that rebuilding overfished stocks could increase fishery production by 16.5 million tonnes and annual rent by US\$32 billion, which would certainly increase the contribution of marine fisheries to the food security, economies and well-being of the coastal communities. Although good progress is being made in reducing fishing rates and restoring overfished stocks and aquatic ecosystems through effective management actions in some areas,

there is much that needs to be done to ensure the sustainable contributions of capture fisheries to human and ecosystem well-being.

Increased vulnerability of small-scale fishers, fish-farmers and dependent communities to increasing climate variability, climate change and degrading environments

9. With the increasing risks associated with climate variability, changing water and rainfall regimes and temperature variability, small-scale fishers and fish-farmers are more vulnerable than ever before. For example, climate change will impact aquaculture and coastal/riparian fishing communities through extreme weather events, such as storms, flooding and drought; through ocean acidification and increasing temperatures, which have particularly severe consequences for shellfish and squid, mangroves, tropical coral reefs. Migration of commercial species is predicted to have leave serious deficits in tropical countries where marine fish availability is predicted to decrease by as much as 40%. This will have cascading effects on economic growth and jobs along the seafood value chain. Other external drivers of environmental change, such as an increasing reliance on hydropower for energy, irrigation for crop production and freshwater extraction for human consumption, alter the rhythm of flows and water levels; combined with the increasing cumulative impacts of effluents, run-off, habitat destruction and pollution, are severely hampering the productive capacities of the aquatic systems.

Lack of inclusive and equitable value chain for small fishers and fish-farmers

10. Aquaculture and fisheries production has greatly shifted from subsistence production to market-oriented production. Small-scale fish-farmers and fishers are now more dependent on inputs suppliers and distant markets. However, inclusive and equitable aquaculture and fisheries value chains have not been well established in many countries. Small-scale fish farmers and fishers and post-harvest workers usually don't have easy excess to quality inputs and direct access to mainstream markets and they often bear the most economic risks and share the least benefits among all the players along the value chain.

INVOLVEMENT OF REGIONAL INITIATIVE FOR BLUE GROWTH

11. In order to respond to the recommendations of the APFIC Session and the APRC and support the implementation of the FAO Strategic Programs, regional initiative on sustainable intensification of aquaculture for blue growth in Asia-Pacific was first developed in 2014 to support the member countries address the major issues and challenges in achieving sustainable fisheries and aquaculture growth through responsible management and utilization of aquatic ecosystems and natural resources.
12. The regional initiative was implemented with 6 focus countries, namely Bangladesh, Indonesia, the Philippines, Sri Lanka, Timor Leste and Vietnam between 2014 and 2016. The implementation of regional initiative from 2014-2016 involved mostly aquaculture focused regional and country level activities during a number of reasons, the implementation and major achievement were reported to the 34th Session of APFIC.
13. The 34th APFIC Session and 33rd FAO Asia and Pacific Regional Conference (APRC) endorsed the implementation of the regional initiative and complimented the achievement. The 34th APFIC Session and 33rd APRC also recommended to expand the scope of the regional initiative to the full range of fisheries, aquaculture and management of aquatic ecosystems and resources and geographic coverage on entire Asia-Pacific Region.
14. Since late 2016, the regional initiative conceptual framework was restructured for more inclusiveness and a programmatic approach. The regional initiative was renamed as regional initiative on blue growth in Asia-Pacific. The implementation of the regional initiative is open for any country where there is potential and strong interest in addition to its inter-sectoral nature.

NEW PROGRAMMATIC FRAMEWORK OF REGIONAL INITIATIVE ON BLUE GRWOTH

Objective of the Regional Initiative

15. The objective of the regional initiative is to Support the member countries in the region to achieve blue economic growth and contribute to the Sustainable Development Goals with:
 - Sustainable growth of aquaculture and sustained capture fisheries by implementing innovative production technologies and practices and more responsible management approaches and practices for sustainable and efficient use of aquatic natural resources;
 - Conservation of marine and inland water ecosystems, aquatic biodiversity and their ecosystem services;
16. The regional initiative will support the member countries to effectively address the key issues in achieving sustainable aquaculture growth and responsible capture fisheries and conservation of marine and inland water ecosystems through development and implementation of appropriate regional and country level policy and strategy and technical and managerial interventions at country level.
17. The main focus of the initiative will be promoting informed policy, good governance and innovative production and management practices that contribute to sustainable growth of aquaculture and improved management of capture fisheries covering the whole supply chain from the input supply to the marketing of products in Asia.
18. The implementation of the regional initiative will significantly contribute to 8 Organizational Outputs across SO2, SO3 and SO5.

Programmatic Work Areas (PWA) of the Regional Initiative

PWA 1. Strengthen the enabling environment for sustainable growth of aquaculture, sustainable capture fisheries and conservation of marine and inland water ecosystems and aquatic biodiversity in Asia

- Support and disseminate development of regional strategy and Action plan for sustainable aquaculture growth and fisheries management and conservation of marine and inland water ecosystems and aquatic biodiversity in Asia-Pacific through regional consultations, organizations/mechanisms and government of member countries in the region;
- Support formulation of country specific policy/strategy recommendation documents and enabling legal frameworks for the sustainable growth of aquaculture and fisheries management and conservation of marine and inland water ecosystems and aquatic biodiversity;
- Strengthen capacity building of member governments and regional organization promoting blue growth and the public awareness raising; and
- Document contributions of the fisheries and aquaculture sector to the Sustainable Development Goals.

PWA 2. Support improved efficiency and sustainable growth of aquaculture in Asia

- Support the application of aquaculture planning and management tools in member countries;
- Document and disseminate well proven innovative aquaculture system/practices/technologies among the member countries;

- Support scaling up of innovative aquaculture farming systems/practices in Asian countries; and
- Support Develop ICT based aquaculture resources inventory and extension service platform in the member countries.

PWA 3. Promote sustainable capture fisheries and protection of aquatic biodiversity and ecosystem services

- Support the development ecosystem approach to fisheries management plans in member countries and share the successes across the region;
- Support assessment of marine fisheries stocks for informed fisheries management in member countries;
- Support assessment of the status of implementation of the PSMA and related instruments and the development of national strategies and actions to combat IUU fishing; and
- Support the evaluation and protection/management of Aquatic biodiversity and ecosystem services in important marine and inland ecosystems in member countries.

PWA 4 Support inclusive and equitable aquaculture and fisheries value chain development

- Strengthen the national capacity for supplying quality aquaculture seed;
- Strengthen the national capacity for supplying quality and cost effective feed for small farmers;
- Support assessment of aquaculture value chain and formulation of national strategy for strengthening aquaculture value chain; and
- Support establishment of Best practices in post-harvest practices.
- Support implementation of the Small-scale Fisheries Guidelines and the Tenure Guidelines through increased understanding of the contributions of the small-scale fisheries sector to food security and nutrition and livelihoods and economic growth, provision of technical support to SSF organizations and cooperatives and increased collaboration with CSO and private sector actors.

PWA 5. Increase resilience of farmers and fishers in adapting to climate change impacts and coping with natural and socioeconomic risks

- Support the assessment of vulnerability/risks
- Support development and demonstration of climate resilient aquaculture farming/fisheries system/practices, including better integration of aquaculture with other agriculture production system such as rice-system in member countries;
- Support identification of community-based climate resilient fisheries and aquaculture options and development of the capacity for adopting the options; and
- Evaluate potential aquaculture/fisheries social protection and insurance schemes and develop related policy recommendations for building social safety nets for small fish farmers/fishers.

IMPLEMENTATION OF REGIONAL INITIATIVE ON BLUE GROWTH IN 2016-2017

19. FAO continued and expanded the implementation of the regional initiative during 2016-2017 at regional and countries levels with increasing efforts in mobilizing resource by FAO regional and countries office.
20. At regional level, FAO organized seven regional consultations and technical workshops to address issues of region importance in sustainable intensification of aquaculture. Three regional projects were formulated and implemented to support good aquaculture production and management practices at both regional and country level. A FAO publication on documentation of Sustainable aquaculture practices in the region was produced.
21. At country level, 17 trust fund projects and TCP projects were formulated and implemented in the six focus countries to support the governments in addressing priority issues related to sustainable intensification of aquaculture.

MAJOR ACHIEVEMENTS DURING 2016-2017

22. Following the general guidance of the 33rd APRC for FAO's priority work and specific recommendations, RAP regional initiative for blue growth (RI-BG) has made major achievement in the following areas.

The regional initiative effectively supported the member countries to improve fisheries management and protect aquatic ecosystems

- Countries are assisted to strengthen and implement their National Plans of Action (NPOA-IUU). Accession to international agreements (such as PSMA and UNFSA) is being supported through legal and policy advice. In coordination with FAO HQ, a suite of TCP/TCPF projects are being implemented in 7 countries. A regional TCP to address IUU has been developed to support 5 countries and the APFIC region develop capacity and identify gaps.
- Countries are supported to strengthen countries capacity in Fisheries Management through and promotion of the Ecosystem Approach to Fisheries (EAF). Capacity development materials for the region continued to be improved (LEAD, EEAFM and EAFM TOT). Two key FAO regional projects supporting in part EAF implementation (REBYC-II and BOBLME) were closed in 2017 and one, the ISLME opened. Support to EAF implementation is integrated into 3 national projects) and
- Strengthened regional cooperation on the Bay of Bengal and Indonesian Seas, which is indicated by the endorsement of the FAO led Strategic Action Program (SAP) by all countries and their agreement to the second phase programme partnership supported by the GEF. The Indonesian Seas LME project Strategic Action Planning Phase (led by FAO) was kicked off.

The regional initiative effectively supported the member countries in identifying and demonstrating innovative aquaculture production and management systems and practices for more efficient and sustainable production

- Successful conduct of regional workshop promote scaling up of innovative agro-aquaculture in Kunming, China, with over 30 participants from 7 countries in Asia through collaboration between RI-BG and SP2;
- Successful demonstration of innovative rice-fish and rice-shrimp farming in Indonesia and Vietnam and expert team support mission to Myanmar promoting innovative agro-aquaculture and a regional technical guideline for good rice-fish farming practices developed and disseminated to 5 countries;
- Successful pilot application of four aquaculture planning and management tools in Indonesia, Thailand and Vietnam through implementation of a regional TCP;
- Successful conduct of regional consultation on responsible production and use of feed and ingredients for sustainable growth of aquaculture in Asia-Pacific and draft regional strategy and actions recommended;

Effectively supported the member countries to strengthen inclusive and gender sensitive fisheries and aquaculture value chains

- Member countries are supported to implement the SSF Guidelines through ground-level work with community-based fisheries development in Cambodia as well by organizing a joint FAO-SEAFDEC “Experts Workshop on Regional Approach for the Implementation of FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries: Human Rights- Based Approach and Gender-Equitability” on 26-28 September 2017;
- Five countries are supported to improve aquaculture feed and seed production through Country TCP projects, which improves the access of small farmers to quality production inputs;
- Two countries are supported to conduct aquaculture value chain study and development strategy and actions for establishing inclusive aquaculture value chain;

Effectively supported the member countries to build resilience of fisheries and aquaculture sectors

- Assisted members to implement National Plans of Action (NAPA) through the development or implementation of GEF/LDCF (e.g. Bangladesh, Cambodia, Lao PDR, Myanmar and Timor-Leste);
- Development of regional GEF projects (e.g. BoBLME and ISLME) that incorporate climate change and DRM;
- Successfully supported 5 member countries in developing, piloting and scaling climate resilient fisheries and aquaculture systems/practices through developing and implementing regional/country TCP projects and GEF project;
- Successful conduct of FAO/APFIC Regional Consultative Workshop “Building Climate Resilient Fisheries and Aquaculture in the Asia-Pacific Region”, which effectively shared lessons and good practices to address climate change implications for fisheries and aquaculture in the region and recommended strategies and actions to effectively address the gaps and constraints in building the climate resilience and contributing to reduced GHG from of fisheries and aquaculture industry;

PRIORITY AREAS OF WORK FOR 2018-2019

Continue to support the member countries to improve fisheries management and protect aquatic ecosystems through:

- Support the member countries to address IUU through implementation of ongoing support projects (TCP/TCPF), NPOA development, accession to PSMA and UNFSA with new TCPF;
- Develop regional strategy and programme to address IUU and a draft joint BOBP-IGO RPOA-IUU strategy Consultations under the regional TCP;
- Strengthen regional cooperation through consultations in support of the BOBLME second phase programme document and start ISLME consultation phase.
- Promote EAF, fisheries co-management and aquatic biodiversity and habitat conservation in member countries through effective implementation of ongoing GEF projects (Indonesia, china, Timor etc.) and development of new GEF, GCF projects to support countries;

Support the member countries to scale up innovative aquaculture and fisheries production and management systems and practices for more efficient and sustainable production

- Continue to support scaling up of innovative agro-aquaculture (rice-fish, rice-shrimp and aquaponics) in the member countries through implementation of a regional/country TCPs and developing and disseminating knowledge products;
- Conduct regional study and workshop to promote the use of Information and communication tools for improved fisheries management;

- Produce and disseminate knowledge projects on aquaculture planning and management tool application to the member countries;

Support the member countries to strengthen inclusive and gender sensitive fisheries and aquaculture value chains

- Conduct country case studies on the participation of women and youth in the fish value chain, with the overall aim of formulating targeted interventions to address specific constraints;
- Support the 7th Global Symposium on Gender in Aquaculture and Fisheries to be held in Bangkok, Thailand on 18-20 October 2018 to highlight, promote and disseminate FAO's work;
- Continue to support the member countries to implement the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication and develop their capacity for implementing and monitoring SDG 14.

Support the member countries to build resilience of fisheries and aquaculture sectors

- Support member countries to build capacity, development strategy and adopt good practices for fisheries and aquaculture CC adaptation and mitigation through implementing ongoing GEF and TCP project and developing new GCP, GCF and TCP project ;
- Organize a regional technical consultation on how to develop and promote appropriate insurance for supporting resilience of fishing and fish farming households based on previous work (regional and national workshops and country case studies);
- Organize a regional consultation and related country investigation to address AMR risks related to aquaculture in the region in collaboration with RAP One Health Initiative and HQ programme work;
- Continue to provide support to emergency response and preparedness, taking into consideration that many countries in the region are prone to natural disasters and the impacts of climate change.

SUGGESTED ACTION BY THE COMMISSION

23. The Commission is invited to review and comment on the programmatic framework of the regional Initiative on Blue Growth;
24. The Commission is further invited to review and comment on the implementation and progress made since the last session;
25. The Commission is further invited to review, comment and endorse the priorities for implementation of regional initiative on blue growth for 2018-2019.