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FAO REGIONAL CONFERENCE FOR ASIA AND THE PACIFIC

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Agenda item 12

Blue growth

Executive summary

Climate change, overfishing, aquaculture with poor planning and governance in coastal and inland areas, along with other destructive human activities, are contributing to irreversible damage to habitats, ecological systems and biodiversity. The FAO Blue Growth Initiative (BGI) provides a holistic approach for the sustainable management and efficient utilization of natural resources for food security and economic growth and farmers' adaptability to climate change impact and resilience to natural disasters and socioeconomic risks. Its principles are consistent with the Code of Conduct for Responsible Fisheries (CCRF) and in line with agreed regional priorities (e.g. the Vava'u Declaration on Pacific Fisheries Resources, the SAMOA Pathway, the recommendations of the Asia-Pacific Fishery Commission and the Regional Strategy for Sustainable Intensification of Aquaculture in Asia-Pacific). This paper highlights how the Blue Growth Initiative addresses key areas within the FAO Strategic Framework and invites the Regional Conference to discuss the issues, priorities, constraints and actions, needed to promote blue growth in the region.

Guidance sought by the Regional Conference

The Regional Conference is invited to:

- consider the relevance of the major areas of intervention proposed under the Blue Growth Initiative, the proposed subregional priorities in the short- to medium-term and how these might be implemented in the Asia and the Pacific region.
- provide advice on the focus and priorities for BGI programmes which are specific to the Asia subregion and to the Pacific Island subregion.
- advise on emerging issues for incorporation into the further development of the Blue Growth Initiative and to strengthen the uptake of FAO's global goods and services at national and regional levels.

I. Introduction

1. Fisheries and aquaculture contribute significantly to the food security and livelihoods of millions of people around the world. It is estimated that 200 million direct and indirect employment opportunities occur along the value chain – from harvesting to distribution – and about 880 million people, most of whom reside in the Asia-Pacific region, depend on the sector for their livelihoods. In the region, fisheries and aquaculture make a significant contribution to food security and livelihoods of millions of people, supplying an average of 18.6 kg/capita/year and providing essential micronutrients and 22.4 percent of the population's animal protein. These dependencies are much greater in Small Island Developing States (SIDS) and some fish-dependent developing countries of the Asia-Pacific region.

2. The large and diverse fishery and aquaculture systems of the Asia-Pacific region contribute significantly to the food security, livelihoods and economies of two subregions,[1] each of which is framed by distinct demographic, social, cultural and economic conditions. This means that while it is possible to generalize across the Asia-Pacific region about the need for action, the planning and implementation of interventions are highly context-specific and need to be tailored accordingly. In recognition of this, the situational descriptions for Asia and the Pacific Island subregions are addressed separately in this paper.

II. The Asia regional context

3. In the Asian region, 48 million people are engaged in fisheries and aquaculture production, representing 87 percent of the global total. There are 170 million direct and indirect employment opportunities along the value chain. Asia's fishing fleet represents 73 percent of the world's total, and the region employs 97 percent of the world's aquaculture farmers. In addition, more than 90 percent of the region's capture fishers are small-scale fishers.

4. The Asian region's marine and inland water fishery and aquaculture production systems have the potential to contribute enormously to sustainable development. It is therefore critical to sustain the benefits which arise from aquatic production systems for the Asia-Pacific region in particular, as well as for the rest of the world through international trade.

[1] FAO Members in the Asia region are: Afghanistan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, DPR Korea, India, Indonesia, Iran, Japan, Kazakhstan, Lao PDR, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Republic of Korea, Russian Federation, Singapore, Sri Lanka, Thailand, Timor-Leste, Uzbekistan and Viet Nam.
FAO Members in the Pacific region are: Australia, Cook Islands, Fiji, France, Kiribati, Marshall Islands, Micronesia, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, United States of America and Vanuatu.

5. Since the 1970s, there has been rapid geographic expansion of capture fisheries, and effective regulatory and management systems have either not been put in place or have been unable to keep pace with development. The result is declining productivity in many areas and ensuing social and economic problems. Changing fishing patterns, limited monitoring of catches and transhipment of fish between fishing areas has complicated trend reporting for fisheries in the Asia-Pacific and has hampered accurate determination of the status of stocks. This has invariably led to the false assumption that there is still significant potential for further expansion. In fact, there seems to be little scope for increasing the natural supply of fish from Asia's marine capture fisheries, with the exception of some deep water stocks. There is some potential in certain inland waters, principally through enhancement methods including stocking.

6. Fishing activities impact both stocks and the ecosystem and need to be managed effectively if fisheries are to be sustained. There are few fisheries in the Asian region which could be considered to be effectively managed, threatening profitability and long-term sustainability. This has consequent impacts on the livelihoods of fishers and on ecosystems in general. The situation is not irreversible, and recent commitments by a number of countries have shown how effective action can reverse the decline. It is worth noting that tropical fisheries tend to recover quite quickly, and there are economic advantages to fishers at every scale from restoring fisheries through sustainable management.

7. Based on the trend of aquaculture in different regions, Asia is expected to make a major contribution to meeting increased global demand for fish as China and many other nations are increasing their investments in aquaculture. In the absence of measures aimed to recover capture fisheries, it is expected that up to 62 percent of food fish will come from aquaculture by 2030. The fastest growth in production is likely to come from only four species produced in the Asian region in considerable quantities. These are Pangasius catfish, Nile tilapia, rohu carp and whiteleg shrimp. Tilapia production in particular is expected to almost double in global production from 4.3 million to 7.3 million tonnes annually through to 2030.

8. The intensification of culture operations will increase the need for labour, and aquaculture will become an increasingly important employer and source of rural livelihood. Over the last five years, the number of people engaged in fish farming in Asia has increased by 5.5 percent annually.

9. Despite this potential, many aquaculture and culture-based fishery production systems in the region are showing signs of unsustainable development and even declining productivity. Rapid growth in production over the past three decades has largely been due to the expansion of culture areas, technological intensification and increased use of feed.

10. While this growth has contributed to food security and rural livelihoods, it has also resulted in significant environmental impacts competing for both space and freshwater. The increased economic intensification of aquaculture has also shifted cultivation towards species that are both high-value and dependent on high intake of animal protein feeds. This presents resource challenges and, in particular, linkage to capture fisheries which are the primary source of fishmeal utilized in aquaculture feeds. Intensification also presents disease challenges driven by overcrowding and the limitations of environmental carrying capacity.

III. South Pacific subregional context

11. The 22 Pacific Island Countries and Territories (PICTs) span much of the tropical and subtropical Pacific Ocean, and the area encompassed by the exclusive economic zones (EEZs) of these countries and territories exceeds 27 million km^2. These 17 states and 5 overseas territories comprise 200 high islands and 2 500 low-lying islands and coral atolls. Because of their wide geographical range, the PICTs encompass approximately 28 percent of global EEZs which include some of the most productive tuna fisheries in the western and central Pacific Ocean.

12. Pacific Island countries are also among the smallest and most remote countries on earth, scattered within the world's largest ocean. A significant number of these countries comprise low-lying atolls that do not reach more than a few metres above current sea level. The Pacific Ocean is the major economic, social and cultural lifeline for the 10 million Pacific islanders. Its coastal and marine environments sustain a multitude of important activities that fuel local, national and international economies and provide livelihoods and food security for millions of islanders.

13. In almost all PICTs, fisheries play a much larger role in the economy than in most other countries.[2] And while the economies of PICTs are diverse, they all are characterized by the advantages and constraints typical of oceanic islands, particularly the effect of geographic isolation. PICTs' economies are particularly dependent on coastal and ocean resources that are used beyond the PICTs region. In the tropical Pacific, fish is also a cornerstone of food security, with average annual consumption of fish (including shellfish) by coastal rural populations ranging from 30–118 kg per person in Melanesia, 62–115 kg in Micronesia and 50–146 kg in Polynesia. Even in urban centres, fish consumption usually greatly exceeds the global average of 16–18 kg per person per year. In this context, coastal aquatic systems currently deliver most of the benefits from fisheries (e.g nutrition and jobs) that directly affect islanders throughout the Pacific. In addition, coastal aquatic systems provide ecosystem services to island countries and the world at large through exports, tourism and provisioning and protective functions.

14. Oceanic fisheries represent a natural resource for the PICTs which is not limited by the small size of the islands because of the large surrounding EEZ areas. Several PICTs have great interest in developing the tropical Pacific tuna fishery within the limits set by regional and international agreements. There is increasing potential for substantial, sustainable economic returns from access fees paid by vessels from Distant Water Fishing Nations (DWFNs), transhipment fees, export duties and taxes. In addition, there is associated economic development from Pacific island-owned or joint-venture industrial fishing operations and onshore processing plants as well as the employment opportunities that these create. A key challenge is for PICTs to develop an optimal mix of domestic and distant water fishing operations and associated industry to optimize national benefits on a sustainable basis.

15. As in Asia, coastal and inland (or lagoon) fishery systems are under threat from internal and external factors. Chief among these are the inability to control fishing effort (i.e. because of ineffective management processes and poor governance), increased demand for fish resulting from population increase and urbanization, habitat destruction, pollution, logging and mining. As a consequence, many coastal resources are unable to support fisheries for domestic consumption, and so export and further development activities could lead to increased local area depletion and threats to the supply of marine food. Some relief could be obtained by supplementing national fish demand with an allocation of fish currently destined for international markets; however, challenges would include how to effectively distribute the fish at an affordable price to the urban poor and among coastal communities where it is needed most.

16. There is some long-term potential for aquaculture in PICTs as another source of fish and income. However, because of long transport chains, lack of infrastructure and the high cost of imported technology and raw material inputs, this is not likely to make a significant contribution to food production for many years. There are some notable exceptions to this generalization, particularly in the larger islands or where there is local demand for high-value marine products for urban and tourist markets and in those areas where production scales and infrastructure support are of a magnitude that is cost effective.

[2] Gillett, R. (2009) Fisheries in the economies of Pacific Island Countries and Territories. Pacific Studies Series, Asian Development Bank, Manila, Philippines.

IV. Threats and challenges caused by climate change

17. It is now widely recognized that the effects of climate change will impact both the capture fisheries and aquaculture subsectors across the Asia-Pacific region. This will result in increasing uncertainty in the supply of fish and in the economic viability of production systems, with very specific and locally variable challenges.[3]

18. Capture fisheries systems across Asia and in the coastal fisheries of the PICTs are already overstressed because of poor management that includes overfishing, pollution, water abstraction and habitat alteration. As a result, extra effort will be required for the resources to recover from the additional stressors that climate change will present (e.g. changing precipitation, water salinity, ocean acidity and sea level rise).

19. Long-term and cyclical fluctuations in marine environments and the frequency and intensity of extreme weather events, such as excessive rainfall, cyclones and droughts, will certainly have an impact on the supply of fish and fisheries products. Food quality may also be threatened with the increased risk of species invasions and the spread of vector-borne diseases. Local changes in upwellings and temperatures might open new opportunities for increased abundance of some species; however, it is also inevitable that other species will be negatively impacted.

20. Intensification of aquaculture production in Asia also will be challenged by temperature change, greater numbers of extreme weather events, flooding and drought. Rising sea levels and storm surges have huge implications for coastal fishing and other agricultural communities, particularly in low-lying SIDS and in the tropical deltas. In these areas, climate change adaptation and mitigation constitute a high priority.

21. Because PICTS are located mainly in tropical and subtropical oceans, their climate is influenced strongly by ocean-atmosphere interactions which often manifest themselves in extreme weather events such as hurricanes and cyclones. These events are associated with storm surges, coral bleaching, inundation of land and erosion which all result in high-cost damage to socio-economic and cultural infrastructure.[4]

22. These climate characteristics and socio-economic situations present significant challenges for policy development, including the loss of revenue across productive sectors; damage to coastal infrastructure and accelerated coastal erosion; depletion and/or shifting of fish stocks; bleaching and, ultimately, the death of coral reefs; and the impact on availability and quality of water resources required for local communities and tourism.

23. Although impacts are generally considered to be negative, climate change may present some opportunities to a number of countries (e.g. the growth of new species and new fisheries emerging as a result of the shifting stocks).

V. "Blue growth" and how it supports development

24. At Rio+20, FAO sent a clear message to the global community about its commitment to ensure sustainable futures for farming and fishing communities and that a "blue economy" was

[3] Sriskanthan, G. & Funge-Smith, S. J. (2011). The potential impact of climate change on fisheries and aquaculture in the Asian region. FAO Regional Office for Asia and the Pacific, Bangkok, Thailand. RAP Publication 2011/16, 41 pp.

[4] VULNERABILITY AND ADAPTATION TO CLIMATE CHANGE IN SMALL ISLAND DEVELOPING STATES, Background paper for the expert meeting on adaptation for small island developing States: https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf

conditional to sustainable growth in fisheries. A "blue economy" emphasizes conservation and sustainable management based on the premise that healthy ocean ecosystems are more productive and necessary for sustainable ocean-based economies.

25. To support a shift to this new approach, FAO launched the Blue Growth Initiative (BGI), through which it will assist countries in developing and implementing blue economy and growth agendas. Sustaining and building on the potential of aquatic systems to deliver long-term economic, environmental and human benefits can only be realized if the health and productivity of these systems can be maintained or restored. Accordingly, the goal of “blue growth” is to achieve a balance between healthy aquatic ecosystems and sustainable production.

26. Blue growth requires a combination of strategies which mix policy and institutional reform with on-the-ground action and which strengthen the promotion of the FAO Code of Conduct for Responsible Fisheries. A strong feature is the use of ecosystem approaches to planning and management. The application of the strategies is context-specific, but all offer long-term prospects for driving sustainable resource management of the fishery and aquaculture sectors. These linked strategies are as follows:

A. Strategy 1: Invest in food security, livelihoods and well-being

27. Blue growth places importance on creating sustainable, stable livelihoods and reducing the vulnerability of fisheries and aquaculture fishers, farmers and coastal communities.

28. The key to achieving thriving blue growth is to unlock the transformative potential of people to pursue sustainable livelihood opportunities linked to the aquatic resource base. Fisheries and aquaculture provide a primary source of protein and essential nutrients[5] while other sectors operating in the marine and inland aquatic ecosystems (e.g. forestry in nearshore areas, tourism, transport and others) also provide vital inputs to food and livelihood security. Blue growth also seeks opportunities for alternative or complementary livelihoods, including employment through “green jobs” in another part of the value chain or in another relevant sector.

29. Blue growth strives for sustainable increases in productivity through improved management, use of innovative technology and building on traditional practices – including through increases in efficiency of production and waste reduction across the value chain. This includes identifying and eliminating overcapacity and waste where they exist in the supply chain.

30. Because threats from climate change are recognized, blue growth includes the promotion of increased government awareness and political will to mobilize resources for action. Practical approaches include using energy efficiently and reducing the carbon footprint in fisheries and aquaculture.

B. Strategy 2: Maintain or restore biodiversity and ecosystem function

31. Healthy marine ecosystems are crucial to sustainable fisheries and aquaculture and to the sector’s ability to fulfil its food security and nutrition functions. Anthropogenic environmental changes such as climate, land and water use and pollution occurring in terrestrial ecosystems can negatively impact aquatic processes that provide key ecosystem services to society, such as food production, tourism and marine transportation. A key aspect of the “blue growth” approach is recognition of the need to maintain ecosystem services and to restore degraded aquatic systems to maximize their benefits to communities.

[5] HLPE, 2014. Sustainable fisheries and aquaculture for food security and nutrition. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome 2014. Full report at http://www.fao.org/cfs/cfs-hlpe/reports/en/.

32. Habitat damage, destructive fishing, overcapacity and illegal, unreported and unregulated (IUU) fishing in marine capture fisheries are major challenges in the region, and addressing these threats is central to management. The blue growth approach emphasizes improved health of aquatic ecosystems through the development, testing and application of new and innovative use of technologies in control and management of fishing and aquaculture operations. These approaches seek to minimize impacts to aquatic and atmospheric environments and capture the potential benefits of improved habitats to increase biodiversity and enhance ecosystem services for nutrients and carbon capture.

C. Strategy 3: Harness finance and innovation opportunities

33. A key focus for blue growth will be to inform policy approaches that transition away from aiming to maximize production at all costs towards aiming to operate within sustainable limits with improved economic and efficient use of energy.

34. At the level of fisher and farmer operations, this translates into identifying finance strategies based on a value-chain approach and improved operational efficiency. This addresses vulnerabilities that result from high dependence on middlemen and constraints to the empowerment of fishers/farmers (e.g. financial illiteracy). Blue growth supports strengthening the capacity of finance institutions and identifying financing mechanisms for innovative and adequate financial services. This also requires strengthening associations to empower them to innovate and transition to blue growth strategies. A key element is facilitating dialogue among national fisheries authorities, fishers' organizations, finance institutions and regional organizations to increase fishing communities' enrolment and access to inclusive and sustainable financial institutions and services.

D. Strategy 4: Build on existing knowledge and value systems

35. The rapid growth of capture fisheries and aquaculture production in the region has resulted in a considerable gap between the need for sustainable management at the system and owner-operator levels. There is great potential to enhance capacity and knowledge management in both fisheries and aquaculture to draw on examples of sustainable production systems. This, combined with increased awareness of methods and approaches, can help to manage systems within sustainable limits and adapt them to the potential impacts of climate change on the sector.

36. Traditional collective fisheries management has a long tradition around the world in both inland and marine fisheries. Systems that combine community-based initiatives with government support through co-management have shown potential to diminish resource overexploitation or environmental degradation and alleviate poverty and vulnerabilities among fishing and aquaculture communities. In many commercial operations, there is an opportunity to increase knowledge and understanding of the medium- and long-term economic benefits of responsible operation of aquaculture facilities and fishing activities and the potential to apply climate adaptation strategies.

E. Strategy 5: Develop an effective enabling environment

37. Blue growth has its foundations in international policy frameworks and instruments, such as the United Nations Convention on the Law of the Sea, the United Nations Fish Stocks Agreement, the Convention on Biological Diversity (CBD), FAO's Code of Conduct for Responsible Fisheries (CCRF), the ecosystem approach, the Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests and the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines). It also directly responds to the global effort to respond to climate change and the need for mitigation and adaption in the fishery and aquaculture sectors.

38. While global instruments provide the overarching policy guidance for sustainable development of fisheries, there remains a significant gap between FAO's process of developing global

goods and services and the extent to which the subregions and their respective memberships can shape and tailor such processes to their respective subregional and national specificities. Enhancing uptake of global goods and services at the regional and national levels will require allocation of financial and technical resources to support the transition process as well as regular and more structured dialogues between FAO and those agencies involved in decision-making.

39. In the Asia subregion, this can be achieved through cooperation mechanisms, such as the Asia-Pacific Fishery Commission, and FAO partnering arrangements with regional fishery and aquaculture organizations and regional economic arrangements. For the Pacific subregion, the Framework for Pacific Regionalism6 offers a mechanism to support greater collaboration and partnering between FAO and the Council of Regional Organisations in the Pacific. This would include the Secretariat to the Pacific Community (SPC), the Pacific Islands Forum Fisheries Agency (FFA) and working closer with national agencies and stakeholders to assist them in harmonizing national policy and regulatory frameworks and their implementation with international norms.

40. Blue growth initiative areas of work have been specifically requested or generally identified as priorities by the 31st and 32nd Sessions of the Asia-Pacific Regional Conference (APRC) and the Members of the Asia-Pacific Fishery Commission (APFIC).

VI. The FAO blue growth initiative

41. The FAO BGI utilizes the approach described above to support member countries through FAO's regular and extra-budgetary programmes. The aim of the FAO BGI is to secure or restore the potential of the oceans, lagoons and inland waters by introducing responsible and sustainable approaches to reconcile economic growth and food security with the conservation of aquatic resources.

42. The FAO BGI is also intended to complement and be complemented by other actions recommended by international institutions. The overall goal is to end poverty and hunger and to achieve sustainable development in its three dimensions through promoting inclusive economic growth, protecting the environment and promoting social inclusion.7 The transformational changes sought at the global, regional and national levels will be brought about through:

- developing knowledge and harnessing the economic potential of the aquatic ecosystems through the development of innovations, technologies and new investments;
- investing responsibly in line with sustainable financing principles;
- reducing the overexploitation of resources derived from marine or fresh water ecosystems, including through changes in governance and regulatory systems;
- valuing, restoring and enhancing ecosystem services and the resulting increase in biodiversity and improved environmental health;
- innovating and improving production systems for more efficient use of resources and energy; and
- investing in youth and women, as well as other groups such as indigenous peoples, to achieve inclusive, equitable and sustainable development for present and future generations.

[6] The Framework for Pacific Regionalism: http://www.forumsec.org.fj/resources/uploads/embeds/file/Framework%20for%20Pacific%20Regionalism_booklet(1).pdf

[7] The Blue Growth Initiative (BGI): http://www.fao.org/3/a-mk541e/mk541e02.pdf

VII. The blue growth regional initiative in the Asia-Pacific region

43. The Regional Initiative on Blue Growth of the FAO Regional Office for Asia and the Pacific was delivered over the period 2014-2015. This start-up initiative focussed on aquaculture development in selected Asian countries through a number of FAO Technical Cooperation Projects at the national level which covered: innovative aquaculture management approaches; promotion of integrated systems for sustainable production from rice systems; aquaculture biosecurity; and disease surveillance and control. There have also been complementary regional-level activities to address governance issues and strengthen sustainable production systems including guidance on fishery enhancement and national aquaculture policy support.

44. In the 2016-2107 biennium, the regional BGI could be expanded to encompass activities across both aquaculture and fisheries and, importantly, could attempt to include a broader participation of FAO member countries in the Asian (RAP) and Pacific (SAP) subregions. It is envisaged that two distinct and parallel programmes, one for the Asian subregion (RAP) and one for the Pacific subregion (SAP), could be developed that would cover the objectives and indicative work areas outlined in Table 1.

TABLE 1: Indicative work areas of Blue Growth approach across the fishery and aquaculture sectors in the short (2 years) to medium term (2-4 years).

			REGIONAL PRIORITY	
			RAP	SAP
Improve fisheries management and reduction of ecosystem impacts	Develop fishery management plans through the ecosystem approach	Promote capacity building for the implementation of the ecosystem approaches to fisheries to strengthen coastal and inland fisheries management	H	M
		Address habitat impacts and bycatch issues using spatial/seasonal exclusion and innovative/modified gears or fishing methods	M	H
		Reduce fishing effort and capacity on overexploited coastal resources	H	H
		Enhance fisheries productivity through habitat and environmental restoration/enhancement	H	L
		Increase the productivity of man-made water bodies	H	L
		Strengthen community-based fisheries management approaches and use of Special Management Areas (SMAs) in Pacific Island countries	M	H
		Increase domestic production from well managed economically viable coastal FAD fisheries	L	H
		Secure the interests and rights to management and utilization of fisheries resources in Pacific SIDS maritime jurisdictional areas, including support for demarcation and related work on maritime	L	H

		boundaries in collaboration with relevant regional and subregional organizations		
	Reduce economic losses and impacts of IUU fishing	Support national-level capacity building to facilitate effective implementation of the FAO Agreement on Port State Measures	H	H
		Strengthen regional cooperation and information sharing to limit IUU opportunities across subregional areas	H	M
Enhance responsible aquaculture planning and management, increased system efficiency and reduced environmental footprint	Build national capacity for responsible aquaculture planning and management	Promote implementation of the ecosystem approach to aquaculture to strengthen management	H	M
		Provide technical assistance for pilot-level application of planning and management tools (including zoning, biosecurity and feed)	H	M
	Identify and promote appropriate technological innovation	Innovate cost-effective aquaculture production systems to reduce water use and effluent impacts and improve energy efficiency	M	M
	Increase private sector investment and growth	Develop and apply business planning and financial investment decision-making and risk analysis tools	M	H
Develop sustainable livelihoods based on capturing opportunities for diversification, product improvement, improved marketing, empowerment of producer organizations, safer systems, and sector development	Support fisher & aquaculture producers to meet demands of markets and regulatory requirements for sector development	Develop the evidence base and create opportunities for fishers and aquaculture farmers to access international value chains	M	H
		Promote the opportunity of value addition of the catch through improved marketing ensuring increased returns to fishers	M	M
		Promote access of products to sustainable sourcing and other eco-labelling programmes	M	L
		Strengthen marketing organizations	M	L
		Improve access to markets by harnessing information technology via e-documentation, traceability and cold chain assurance	H	L
		Reduce dependence on imported fish products and improve contribution of domestic fisheries products to provide healthy diets	H	H

	Improve safety and efficiency of fishing and aquaculture operations	Strengthen food safety and hygiene standards and national control systems with emphasis on aquatic products	H	H
		Reduce impacts on the environment including GHG and energy footprint reduction and minimized dependence on fossil fuels	M	M
		Reduce food loss and waste throughout production chain	M	M
		Harness IT for GPS/VMS positioning and link to vessel tracking	H	M
		Increase preparedness for extreme weather events through access to early warning information and preparedness	M	H
		Enhance the safety and working conditions of fish processing plants and fishing vessel workers	M	H
	Improve the capacity of producers of artisanal fishery and small–scale aquaculture products to access markets	Improve hygiene and quality Diversify products	H	H
		Empower small–scale fisher and farmer organizations to have their activities recognized and formalized	M	M
		Link to equitable value chains and marketing to increase return to small-scale producers	M	M
		Invest in youth and women, as well as other groups such as indigenous peoples, to achieve inclusive, equitable and sustainable development	M	M
Strengthen regional cooperation for management, coordinated action and capacity building	Provide capacity building and advisory support to member countries and the regions to increase the resilience of livelihoods to disasters and shocks	Facilitate multi-actor processes and partnerships; understand and map root causes of multiple threats and vulnerabilities to fisheries; work on and invest in supporting countries and regions to turn standards, good practices and innovative technology into action on the ground across sectors	H	H
	Collaborate with regional and sub-regional organizations in Asia and the Pacific	Align and promote implementation of international and regional instruments for fishery management with partners in Asia (SEAFDEC, BOBP-IGO) and the Pacific Island sub-region (PIFS, SPC, FFA, SPREP)	M	H

Provide technical assistance to support implementation of key FAO guidelines at regional and national levels	Support recognition, mainstreaming and aligning of the CCRF, associated technical guidelines and the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication and The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security at national and regional levels	H	H

45. A subregional programme would need to focus on a subset of these objectives, and implementation would be contingent on identifying extrabudgetary sources of funding or prioritizing activities under FAO regional and subregional programmes and the country programming frameworks.

VIII. Suggested action by the APRC

46. The Regional Conference plays a critical role in providing guidance to the Secretariat on regional and subregional priorities to be addressed in the Asia and the Pacific Region. The Regional Conference is invited to consider:

- the relevance of the major areas of intervention proposed under the BGI, the proposed subregion priorities in the short to medium term and how these might be implemented in the Asia and Pacific subregions;
- proposing advice on the focus and priorities for BGI programmes which are specific to the Asia subregion and to the Pacific Island subregion; and
- advising on emerging issues for incorporation into the further development of the BGI and to strengthen uptake of FAO's global goods and services at national and regional levels.