Food and Agriculture Organization of the United Nations

Regional Conference

"Strengthening resilient food and agriculture systems –Implementing the Sendai Framework for DRR in the Agriculture Sector in Asia and the Pacific"

15 - 16 March 2018, Ha Noi, Viet Nam

Session Concept Note

Session	**Parallel Session S1 – Fisheries Sector**
Title	***Unpacking risks and pathways for resilient fisheries in light of the 2030 Agenda***
Date **Time**	Thursday 15th March 2018 14.00 – 17.00 hours
Venue	TBC
Organizers	FAO RAP Contact:
Background	Worldwide, over 600 million people depend, directly or indirectly, on fisheries and aquaculture for their livelihoods.[i] Fish provides essential nutrition for over 4 billion people and at least 50 percent of animal protein and essential minerals to 400 million people in the poorest countries[ii]. Trade in fish and fisheries products is also important for societies and economies: fish products are among the most widely-traded foods, with more than 37 percent by volume of world production traded internationally.[iii] The Asia-Pacific region is not only the world leader in total aquaculture production but also has a staggering list of 225 cultured species at family or species level indicating the diversity of the aquaculture sector in the region.[iv] In 2012 the region produced 58.5 million tonnes (equalling USD 108.34 Billion) of aquaculture products (excluding aquatic plants), accounting for 89 percent of the global aquaculture production of 66.7 million tonnes.[v] Fisheries and aquaculture in Asia provide considerable trade, employment and food security with some of the densest rural populations of the world found on coastlines and floodplains of the region. The fisheries and aquaculture sector[1] in Asia-Pacific is undergoing unprecedented changes as economies grow rapidly and demands for fisheries' goods and services accelerate. The sector is also facing many issues such as over-fishing, habitat degradation and pollution and increasing disaster events with climate change and variability compounding the existing pressures on the sector. Impacts of these changes are already being felt within and outside the region and in some cases the increasing demands and the absence of concomitant

[1] For brevity and convenience sake, the fisheries and aquaculture sectors have been termed as fisheries sector in this note

	investments have undermined long-term sustainability. These impacts are underpinned by four factors viz. (i) impact of disaster, (ii) impacts of climate change, variability and extreme events, (iii) anthropogenic drivers, and (iv) underlying and structural drivers of risks. Disaster events have caused adverse impact on fisheries sector at multiple levels for e.g. events like the 2004 Indian Ocean tsunami, Cyclones Nargis and Nilam in last decade, Typhoon Haiyan in 2013, and the floods in Chennai, India, 2015, amongst others, have shown that fisheries-dependent communities in the coastal areas are vulnerable not only to natural disasters and climate change, but also to rapid degradation of marine environment. The 2004 Indian Ocean Tsunami heavily impacted livelihoods of fishing communities with damage and destruction of fishing infrastructure and decline in fishing trips, catch, as well as demand[vi] and reducing fishing incomes by 40-67 percent[vii]. Typhoon Haiyan-2013 in Philippines resulted in USD 280 million in damage and loss to the fisheries sector alone while Tropical Cyclone Winston-2016 in Fiji caused about USD 100 million in damage and loss to fisheries, corresponding to about 2.3 percent of the country's GDP in 2015.[viii] The direct impacts typically are loss of fishing operations (including stocks) and safety-at-sea as well as on physical infrastructure of coastal and riverine communities by destroying or severely damaging assets such as boats, landing sites, post-harvesting facilities and roads. Brunt of these impacts is faced more by the small-holder fishers who comprise 90 percent[ix] of the world's total fishers. Further, disaster events not only have direct adverse impacts on the fisheries sector but also heighten prospective risks through marine and riverine ecosystem disruptions and contamination thereby increasing exposure. In addition to the disaster impacts, anthropogenic drivers of risk like excessive fishing pressure, unsustainable fishing methods and non-compliance of fishing policies and regulations have contributed to rapid depletion of marine fish stock. Further, the underlying drivers of risk like biological and economic overexploitation of marine resources typically gets unaddressed during recovery efforts. Such overexploitation impacts coastal resilience by disrupting marine ecosystems as well as the vulnerabilities of riverine communities due to overexploitation of riverine and wetland systems. These anthropogenic drivers interact with the changing hydrological variations and climate change drivers to further exacerbate the risks to the fisheries sector as highlighted in a study[x] done in Cambodia: "Hydrological variation in the Mekong Basin induced by climate change may amplify an emerging boom-and bust cycle of fish catches, with banner years followed by years of shortage". When the anthropogenic factors interact with changing characteristics of natural hazards, due partly to climate change and climate variability, the risks get exacerbated. It is now widely recognized[xi] that effects of climate change will impact the fisheries sector and result in increased uncertainty in supply of fish from capture fisheries and aquaculture. Climate change is expected to contribute to increasing disruptions to aquatic and coastal

	systems in Asia-Pacific upon which many millions of people depend; however governments in the region are yet to understand the risks, identify vulnerable systems and develop adaptive strategies. The impacts from climate change such as warming of the sea surface, river and lakes, changing precipitation, increasing water salinity and ocean acidification, shifting fish distributions, more frequent cyclones, and sea level rise are already evident. These are already having an adverse effect on marine, coastal and inland environments, producing changes in habitats, stocks and species distribution. 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 spreading of vector-borne diseases. Productivity and viability in aquaculture operations are also expected to be negatively impacted by factors including higher sea water levels, flooding, increased competition for water resources and disease occurrence patterns. Fisheries sector can provide opportunities to adapt to climate change by, for example, integrating aquaculture and agriculture, which can help farmers cope with hazards while boosting profits and household nutrition. Fisheries management must move from seeking to maximize yield to increasing adaptive capacity. Increased policy attention and financial resources for managing risks induced by climate change and disasters in the fisheries sector are urgently needed as is need for the fisheries sector to be closely integrated into national climate change and disaster management policies and priorities. It is therefore essential that the interactions between capture fisheries and aquaculture, along with other sectors such as agriculture and disaster management are integrated into the policy planning processes. Despite the increasing global attention on climate change and projections of their likely effects, there remain serious gaps in coverage relating to the tropical regions of Asia and particularly the fisheries sector. This greatly constrains dialogues and effective planning for the sector in the region. There is thus an urgent need to increase the understanding of the underlying factors of evolving risks facing the fisheries sector in the changing contexts and climate change as well as enhance capacities to accelerate actions to reduce risks and strengthen resilience of the sector. The 2030 Agenda including the Sendai Framework for DRR (SFDRR) and Paris Agreement attach great importance to strengthening resilience of the agriculture sectors and livelihoods to achieve the SDGs. This is reflected in SFDRR Target-C with a specific indicator for reducing agriculture disaster damage and loss and the related SDG indicator 1.5.2. Resilience of food and agriculture systems is instrumental for achieving several SDGs: no poverty, zero hunger, sustainable cities and communities and climate action. To take forward the 2030 Agenda, specifically the implementation of the SFDRR, this

	parallel session will thus unpack the existing and anticipated risks facing the fishery sector; take stock of on-going efforts and share lessons learned by stakeholders in reducing risks to and strengthening resilience of the sector; and identify priorities in policies, programme and actions to further strengthen the resilience building efforts. Guided by the four priorities for action[xii] of the SFDRR viz. (1) Understanding disaster risk; (2) Strengthening disaster risk governance to manage disaster risk; (3) Investing in disaster risk reduction for resilience and (4) Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction, the session deliberations would focus on the following set of questions: • What is the nature of existing and emerging risks (induced by natural hazards and human-induced hazards, climate change facing the fisheries sector and their drivers? Are there any sub-regional (South-Asia, South-East Asia, North-Asia, and such) patterns evolving in terms of the nature of risks? Further, how do these risks vary across coastal / marine, riverine, wetlands, and inland water bodies' related capture fisheries and aquaculture? • How is the nature and manifestations of these risks evolving especially in the backdrop of rapid urbanization in the Asian region, globally connected economies and market forces, and national development priorities? What is the progress in risk analysis, challenges and gaps? • What kind of policy, institutions and capacity exist and are needed for enhancing the fisheries sector's resilience as well as its role in managing risks of disasters and climate change? • What efforts / initiatives are on way to prevent / reduce risks and strengthen resilience in the fisheries sector? What are the lessons learned and opportunities and gaps for policy and programming? Further, what are the emerging priorities (at the policy, programme and actions levels) to strengthen these efforts? • How to build coherence in policies and investments pertaining fisheries sector's development, food and nutrition security, DRR, and CCA as well as urban development to manage risks and strengthen resilience of the fisheries sector as countries deliver on their commitments for the 2030 Agenda? Further, how should these policies be translated into a plan of action for the fisheries sector to implement the SFDRR and Paris Agreement?
Session objectives	The session aims to: • Analyse the existing and evolving risks to the fisheries sector; • Take stock of ongoing actions to manage risks to and build resilience of the fisheries

	sector in light of the 2030 Agenda; • Deliberate on priority actions at policy, institution and programmatic level for strengthening the resilience of the fisheries sector to further the implementation of the SFDRR and the overall 2030 Agenda.
Expected outcomes	• Identification of risks to the fisheries sector and lessons learned on managing the risks and strengthening resilience of the sector and dependent livelihoods; • Identification of priority actions to be undertaken for further strengthening resilience of the fisheries sector for implementation of the SFDRR.
Session format	The session could be a combination of a panel discussion and plenary and/or group discussion. The indicative schedule is below: 14.00 – 14.05 Introduction by the Chair 14.05 – 14.20 Keynote address 14.20 – 15.20 Panel discussion, moderated by the Chair 15.20 – 15.35 Round of question and answers with the panellists by the participants 15.35 – 15.50 Coffee break 15.50 – 16.50 Facilitated 4 working group discussions to identifying priority actions for strengthening resilience in the fisheries sector 16.50 – 17.00 Wrap up by the Chair

Participants who would like to contribute papers and/or speak as a panellist at this session, *Please click here for contribution and send the information of your contribution to kaustubh.devale@fao.org and agrisendai2018@gmail.com*

[i] FAO RAP, 2016, 'FishAdapt: A global conference on climate change adaptation for fisheries and aquaculture', Conference Background Paper, FAO RAP, Bangkok, Thailand
[ii] Ibid
[iii] Ibid
[iv] FAO RAP, 2014, 'Regional overview of aquaculture trends in Asia-Pacific Region 2014', Asia Pacific Fishery Commission (APFIC), FAO RAP, Bangkok, Thailand
[v] Ibid
[vi] NACA, FAO, SEAFDEC and BOBP-IGO (2005) Tsunami impact on fisheries & aquaculture in India
[vii] R. Sathiadas and Sangeetha K. Prathap (2005) Socio-Economic Impact of Tsunami on Fisheries and Coastal Communities in Kerala, India
[viii] FAO, 2018 (unpublished, forthcoming), '2017: The impact of disasters and crises on agriculture and food security', FAO, Rome, Italy
[ix] https://www.rare.org/fisheries
[x] http://pubs.iclarm.net/resource_centre/WF_2492.pdf
[xi] FAO RAP, 2011, 'Implications of climate change on fisheries and aquaculture: challenges for adaptation and mitigation in the Asia-Pacific Region', Asia Pacific Fishery Commission (APFIC), FAO RAP, Bangkok, Thailand
[xii] https://www.unisdr.org/we/inform/publications/43291