Enhancing resilience of the fisheries and aquaculture sector to disaster and climate change

Fisheries and aquaculture and the people dependent on the sector are amongst the most vulnerable to climate change and disaster impacts, such as cyclones, floods, droughts and tsunami. This is because of they tend to be located in one of the most dynamic and disaster prone environments that exists – at the interface between land and water – and because of their dependence on natural systems, including sea grass beds, mangrove forests and coral reef. Fishers and fish farmers are also vulnerable because of their high occupational risk (from accidents at sea), high exposure to changes in macro-economic factors (e.g. fuel and other input prices, fish prices and market access), increasingly high exposure to conflicts with other users (due to increased competition for resources) and more recently to HIV/AIDS. Serious economic, social and environmental costs from climate change and disasters already occur and more are predicted and will compromise food security and livelihoods unless resilience is strengthened.

FAO is working to ensure that regional, national and local partners are better equipped to deal with climate change and disaster impacts on fisheries and aquaculture through better awareness and understanding, advocacy, policy assistance, partnerships development, and capacity building at global, regional and national levels.

Key Resource

A new guide published by FAO helps organize improved response to emergencies and disasters in the fisheries and aquaculture sectors. The Fisheries and Aquaculture Emergency Response Guidance highlights best practices in the various areas involved such as policy and management; capture fisheries equipment; landing sites and harbours, and trade and markets.

Food and Agriculture Organization of the United Nations

Selected major achievements

Developing capacities of partners at all levels for better preparedness, management and response to disasters

The demand for improved guidance for response and recovery in the fisheries and aquaculture sector was voiced by FAO partners in a series of consultation meetings relating to disaster risk management held in between 2009 and 2012. In response, FAO led a process to develop the below guidance documents.

The Fisheries and Aquaculture Emergency Response Guidance http://www.fao.org/3/a-i3432e.pdf

Responding to an emergency situation in fisheries and aquaculture presents a range of complex issues that can be difficult to understand in the absence of appropriate training analytical tools and lessons from experience. To date there have been no systematic guidelines available to support those responding to an emergency involving the fisheries and aquaculture sector. This document aims to fill this gap and to improve the effectiveness of such interventions. These guidelines draw on best practice and lessons learned during response to disasters that have affected fisheries and aquaculture sector. They cover general good practice and technical areas such as; fisheries and aquaculture policy and management; capture fisheries gear, vessels and engines; landing sites, harbours and anchorages; aquaculture and post harvest, trade and markets.

Fisheries and aquaculture emergency response guidance, Review recommendations for best practice: http://www.fao.org/3/a-i3431e.pdf

As part of the process to develop the fisheries and aquaculture emergency response guidance, a workshop was held from 15 to 16 March 2012 in Rome, Italy, to review recommendations for best practices in emergencies affecting the sector. Experts in the fields of fisheries and aquaculture policy and management, post-harvest practices and trade, fishing operations, environment and of social development and vulnerable groups contributed technical background papers relating to the challenge of responding to emergencies that affect the fisheries and aquaculture sector.

Guidelines for the Fisheries and Aquaculture sector on damage and needs assessments in emergencies http://www.fao.org/docrep/019/i3433e/i3433e.pdf

An assessment of disaster impact is essential, not only for supporting the decision-making process before and during the immediate relief efforts, but also to set the basis for longer-term recovery planning. The objective of the guidelines is to support those people who participate in post-disaster needs assessment at the country level. These may include line ministry staff, national and international UN staff, national and international consultants and staff of non-governmental organizations. The guidelines are based on a core document, which articulates the process and reporting requirements of post disaster needs assessments. This core document is then supported by a series of technical annexes that provide specific guidance relating to different aspects of fisheries and aquaculture.

Strategic action plans relevant for disaster risk management/climate change adaptation developed and policy strengthened

Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines)

Vulnerability of small scale fisheries to disasters and climate change was amongst the main topics identified by global, regional and national partners during the consultations on a new international instrument for small scale fisheries which took place between 2009 and 2012. Disaster risks and climate change are now one dedicated chapter in the SSF Guidelines which are expected to be endorsed by the Committee on Fisheries, in June 2014. The SSF Guidelines provide guidance that can be used by States and stakeholders to promote economic, social and environmental sustainability.

A regional strategy and action plan developed and agreed upon with by over 90 local, national and regional stakeholders under the leadership of Caribbean Regional Fisheries Mechanism (CRFM)/CARICOM (December 2012)

The Caribbean is one of the most disaster-prone regions in the world based on the frequency and severity of hazard impacts, as well as the significant damage, destruction and social and economic losses experienced. At the request of the CRFM, FAO provided support to assist countries in the region with the development of a Regional Strategy, Action Plan and Programme Proposal on Disaster Risk Management and Climate Change Adaptation in Fisheries and Aquaculture. Over 90 stakeholders from across the region met during the FAO/CRFM Workshop on Formulation of a Strategy, Action Plan and Programme Proposal on Disaster Risk Management (DRM), Climate Change Adaptation in Fisheries and Aquaculture in the CARICOM Region in Jamaica from 10-12 December 2012. The Strategy, Action Plan and Programme proposal were reviewed and subsequently approved by CRFM in 2013.

A regional workshop on 'Reducing vulnerability to disasters and climate change impacts in Asia for the fisheries and aquaculture sectors', co organised with the ASEAN Humanitarian Action Centre (AHA) Bogor, Indonesia (27-29 June 2013)

The meeting identified specific next steps for FAO, AHA Centre and Government of Indonesia collaboration and support to the region in the areas of fisheries/aquaculture and disaster risk management. The possibility to hold a follow up meeting on Resilience, Agriculture and Food security was also discussed.

Strengthened awareness and understanding

The State of World Fisheries and Aquaculture 2012 (SOFIA 2012)

Global awareness was raised through a selected issue paper on Improved preparedness for and effective response to disasters in fisheries and aquaculture published in the State of World Fisheries and Aquaculture 2012 which was launched at the Committee on Fisheries 2012. A side event was organised on "Disaster Response and Risk Management in the Fisheries and Aquaculture Sector", during the same meeting to review the types of disasters that have affected the fisheries and aquaculture sector in recent years; FAO's and partners' response and; Challenges ahead. Speakers included representatives from the Fisheries Agency of Japan Japanese and from the Caribbean Regional Fisheries Mechanism (CRFM).

Disaster risk management and climate change adaptation in relation to fisheries and aquaculture have been discussed at global, regional and national consultations such as Global Platform For Disaster Risk Reduction meetings, Geneva, Switzerland, the Regional workshop on climate services for the Caribbean, organized by the World Meteorological Organization and focusing on agriculture and food security sector, which was held in Port of Spain, Trinidad and Tobago, May 29-31 2013 and the workshop on "Priority adaptations to climate change for Pacific fisheries and aquaculture: reducing risks and capitalizing on opportunities" which took place from 5–8 June 2012, in Noumea, New Caledonia. The Noumea workshop formed part of a series of climate change awareness-raising and adaptation planning workshops co-organised by FAO and the Secretariat of the Pacific Community (SPC).

Looking ahead

Impacts from disaster and climate change are expected to increase. Continued support is needed to:

- Strengthen the capacity of partners at all levels in prevention, preparedness and response/recovery to disasters in the fisheries and aquaculture sector, through for example the roll out of the Fisheries and Aquaculture Emergency Response Guidance and application of Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines).

- Improve policy coherence to i) ensure explicit and adequate consideration of fisheries and aquaculture in climate change adaptation and disaster risk reduction and management plans at national and or regional levels as well as ii) ensure that fisheries and aquaculture management plans and development programmes include adequate climate adaptation and disaster risk reduction/ management measures.

- Support partners in the design, implementation and financing of resilience programmes that strengthen fisheries and aquaculture dependent livelihoods, reduce risk exposure, enhance resilience and coping capacities of men and women against shocks and threats, enhance preparedness and avoid or mitigate damage and losses from natural disasters and climate extremes.

- Build partnerships at global, regional, national and sub-national levels between international agencies, national agencies, local government, civil society and communities to improve knowledge on how fisheries and aquaculture are impacted by climate change and disasters, learn lessons about, prepare for and respond to slow- and rapid-onset hazards.

FAO therefore calls on development partners and other partners to continue to work together towards the achievement of FAO's new strategic objective on Increasing the resilience of livelihoods to threats and crises and the Blue Growth in Support of Food Security, Poverty Alleviation and Sustainable Management of Aquatic Resources.

For further information please contact:
Florence.Poulain@fao.org
Rebecca.Metzner@fao.org

[1] EAF-Nansen, NFPP Project, NEPAD, SMARTFISH Programme