

# Building Back Better

A workshop on Cyclone Ockhi, which swept through parts of south India, discussed ways to make coastal fishing communities more resilient to natural disasters

On 29 November 2017, a deep depression, detected in the Indian Ocean southwest of Sri Lanka, rapidly intensified into a cyclonic storm off the coast of Tamil Nadu and Kerala and the Union Territory of Lakshadweep Islands in India. Cyclone Ockhi, as it was named, took the life of over 350 people – nearly all fishers from the southern states of Tamil Nadu and Kerala – injured many others and damaged fishing vessels

in the Context of Food Security and Poverty Eradication (SSF Guidelines).

On 29 and 30 May 2018, ICSF organized a national workshop, with the support of FAO, to share the findings of the study with the community, government agencies at all levels and other stakeholders, and to take their feedback. The workshop was also meant to examine the impacts of Cyclone Ockhi on the marine fishing community, especially from Kerala and Tamil Nadu. The workshop, on “Small-scale Fisheries, Cyclone Ockhi and Disaster Risk Management”, was held at Thiruvananthapuram, Kerala.

Participants at the workshop included fishworker organizations, government and multilateral agencies, academics, non-governmental and civil society organizations, as well as members of the disaster affected fishing communities, who had been interviewed for ICSF’s study. The workshop was contextualised in light of the SSF Guidelines and the United Nations International Strategy for Disaster Reduction (UNISDR), focusing on the organization, planning and application of measures preparing for, responding to, and recovering from, sudden-onset disasters. Concepts like ‘relief-development continuum’ and ‘build back better’ to strengthen resilience of small-scale fishing communities, including women and vulnerable and marginalized groups, were to be considered.

## Introductory remarks

The workshop opened with introductory remarks by P H Kurian, Additional Chief Secretary, Revenue and Disaster Management, Government

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and gear. Unlike previous cyclones, Ockhi’s impact was felt almost entirely at sea.

Supported by the Food and Agriculture Organization of the United Nations (FAO), the International Collective in Support of Fishworkers (ICSF) Trust conducted a study on the impacts of the cyclone on small-scale fisheries and the policies and plans in place to manage disasters and disaster risks, at all levels. The study employed a human-rights-based approach to evaluate vulnerabilities, specifically of small-scale fishermen, and recommended improvements in safety of fishers; communication and collaboration between agencies and governments; and the integration of disaster-risk management and fisheries management, in line with the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries

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Fishers catch a light moment before setting out to sea in Marianad, Kerala, India. The collection of information on fishing activity, particularly in the small-scale sector, is a challenge because most fishers directly leave from their villages each day, and not from harbours

of Kerala. A message from Shyam Khadka, FAO representative in India, was presented by C M Muralidharan, Consultant on Fisheries for FAO. Yugraj Singh Yadava, Director of the Bay of Bengal Programme Inter Governmental Organization (BOBP-IGO), Anthony Adimai, Chairman, South Indian Federation of Fishermen Societies (SIFFS), and John Kurien, Managing Trustee, ICSF Trust, spoke briefly. They drew from their diverse experience in fisheries and disaster management to highlight the importance of sea safety, collaboration between institutions and the community, and the need for timely warnings to fishers on cyclones and other natural disasters. P H Kurian said that because cyclone activity was so rare on the southern Arabian Sea coast of India, everyone was focused on the storm's landfall. But Ockhi's impact at sea was an eye-opener, which would definitely be a lesson while going forward.

The opening session was followed by the presentation of ICSF's study, Cyclone Ockhi: Disaster Risk Management and Sea Safety in the Marine Fisheries Sector, by Manas Roshan, an independent researcher and consultant with ICSF Trust. The sessions and group discussions over the two days explored various aspects of

disaster-risk management that emerged in the context of Ockhi: early warning systems and the communication of warnings; institutional collaboration and the role of various agencies; sea safety and fisheries management; and climate-change impacts on the environment and fishers' livelihoods.

In the first panel, fishermen and fisherwomen from the Ockhi-affected villages shared their experiences of the

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disaster. The speakers, representing both the nearshore short-haul fishing operations and the long-haul mechanized fishing vessels, described the socioeconomic and psychological impacts of the cyclone, not only on the men but also the women and families in the community. It emerged that the nearshore fishers in Kerala could have been saved had the initial weather advisories of the Indian Meteorological Department (IMD) reached the coastal villages in time. It was pointed out that although the government had

## **Saving Lives, Protecting Livelihoods**

### **National Workshop on Small-scale Fisheries, Cyclone Ockhi and Disaster Risk Management**

**Thiruvananthapuram, India**

**29 and 30 May 2018**

#### **STATEMENT**

**W**e, participants at the National Workshop on Small-scale Fisheries, Cyclone Ockhi and Disaster Risk Management, held in Thiruvananthapuram, India, on 29th and 30th May 2018;

Concerned that Cyclone Ockhi brought unprecedented fatalities to fishers, including migrant fishers, all along the entire range of their fishing operations, both in inshore and offshore waters;

Further concerned about the impact of Cyclone Ockhi on the women and children of the affected families of fishers;

Mindful that natural disasters have differential impacts and therefore need a differentiated approach at all levels;

Recognizing the need for a national perspective, legal and policy framework that integrate on-land and at-sea disaster management and disaster risk management;

Fearing that climate change impacts can enhance the intensity of cyclones in future in the Arabian Sea, in addition to the Bay of Bengal, and would have disastrous consequences for coastal communities and fishing communities;

Being aware that better disaster management and disaster risk management can contribute to mitigating new disaster risk and associated economic, environmental and social consequences;

Recognizing that the quality and success of disaster management and disaster risk management can be greatly enhanced through consultation and participation, applying a human rights-based approach within the Sendai Framework for Disaster Reduction 2015-2030, and the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (the SSF Guidelines);

Further recognizing that coastal fishing communities often have their own mechanisms, processes and institutions relevant for disaster preparedness that can effectively complement governance mechanisms under the jurisdiction of the State; and

Taking note of the Sustainable Development Goal (SDG) target 1.5 "[B]y 2030 build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters",

Recommend the following measures to the appropriate authorities at various levels and other relevant stakeholders:

#### **I. Disaster management authorities**

1. Reduce the number of deaths and number of people affected, including migrant fishers, and reduce the direct economic losses caused by disasters;
2. Integrate fishers' knowledge into search and rescue operations at sea at all levels;
3. Ensure that emergency relief and rehabilitation measures are expeditiously delivered without further aggravating economic, social and psychological distress of affected families;
4. Take care that relief and rehabilitation measures in a post-disaster scenario are proportional to the needs of affected men and women in fishing and post-harvest activities, including of those directly and indirectly affected;
5. Safeguard maternal health and education for children of affected families;
6. Develop, in consultation with fishing communities, appropriate mechanisms for disaster relief and rehabilitation in the fisheries sector and apply standardized protocols to promote coordination and cooperation at all levels;

7. Build and strengthen resilience and adaptive capacity of small-scale fishing communities and reduce their vulnerability to natural disasters;
8. Make adequate budget provisions to support disaster risk management at all levels;
9. Ensure that disaster management and disaster risk management measures applicable to the fishing sector are informed by reliable information regarding fishing fleets, fishing gear and fishing operations in cooperation with the relevant fisheries departments and the Coast Guard;
10. Develop baseline information on marine and coastal habitats (natural reefs, coral reefs, sandy beaches, etc.) to assess damages to these habitats and dependent species from natural and manmade disasters consistent with Article 7 (adaptation) and Article 8 (addressing loss and damage) of the 2015 Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC);
11. Promote public awareness about natural disasters like cyclones, among other means, through school curricula reforms, school clubs and through ocean literacy programmes;
12. Strengthen the capacity of local self-governments to enhance community participation in disaster risk reduction;

## II. Early warning and prediction authorities

13. Improve accuracy of cyclone prediction and efficiency of its dissemination among coastal fishing communities, and among nearshore and offshore fishers;
14. Develop innovative new approaches (e.g. earmarking 'dynamic cones of uncertainty' as potential cyclone zones) for cyclone prediction, along with multichannel communication, to rapidly disseminate cyclone alerts to local communities (community radio, VHF, HF, satellite phones, etc.);
15. Integrate safety of fishing vessels, vessel navigation and operations as well as occupational safety of fishers into disaster risk reduction protocols to reduce the number of fishers losing their life during cyclones, including through the provision of financial incentives;

## III. Fisheries authorities

16. Recognize the role and responsibilities of the fisheries authorities in monitoring fishing activity and safeguarding sea safety and ensure them an active role, along with other agencies, in search and rescue operations as well as in relief, rehabilitation, reconstruction and recovery efforts; in this context, coastal state/union territory fisheries authorities and the fisheries department at the centre should collaborate;
17. Provide effective and appropriate communication equipment to all fishers and registered fishing vessels at sea;
18. Develop awareness of small-scale fishing communities and provide training about adoption of effective sea safety procedures including use and maintenance of communication equipment;
19. Enforce sea safety norms and integrate sea safety into fisheries management and governance for short-haul and long-haul fishers, consistent with the recommendations of the SSF Guidelines, employing the "relief-development continuum" and "build back better" principles and a human rights-based approach;
20. Build capacity, including through pre-sea training, to deal with fishing in rough sea conditions and working for excessive periods of time, after an assessment of the risks concerned;

## IV. Fishing communities

21. Improve the efficiency of cyclone alerts dissemination among coastal fishing communities, and among nearshore and offshore fishers, using the most cost-effective means of communication (e.g. community radio);
22. Encourage traditional and local knowledge and use of traditional protocols to predict disasters and to reduce disaster risks, and to promote community-based disaster risk management planning;
23. Strengthen the capacity of community-based organizations, including women's organizations, to deal with disaster risk management, particularly at the local level;
24. Propose 'green zones' under coastal disaster preparedness programmes to reduce the vulnerability of small-scale fishing communities to sudden-onset cyclones; and
25. Integrate sea safety into community-based initiatives for fisheries development and management.

In conclusion, building resilience to natural disasters and climate change of coastal communities requires coordination at all levels and open consultation with, and participation of, all stakeholders. This includes an awareness of the responsibilities of the community in ensuring an overall culture of safety at sea and on land.

initiated projects to distribute warning and distress-alert devices for fishers, voice communication was prized by the community. The women described the hardships of the families of dead and missing fishers, whose livelihood needs had not been addressed, despite the generous compensation paid by the government.

The second panel on “Disaster preparedness at sea: ensuring credible early warning and better prediction of cyclones” dealt with the technology options available with meteorologists and disaster managers. S Balachandran, Director of the Chennai IMD Area Cyclone Warning Centre, explained the analytical models employed by the IMD for cyclone prediction. Pointing out that Cyclone Ockhi was unique, both in its rapid intensification in the Comorin Sea and its unusual track along the Arabian Sea, he said that climate change had increased the

three agencies crucial to the disaster-management sequence in Kerala: the State Disaster Management Authority, the Indian Coast Guard and the Department of Fisheries. S. Venkatesapathy, Director of Fisheries, Government of Kerala, stressed the importance of boat registration and data on the movement of fishers and fishing vessels. He said that the collection of information on fishing activity, particularly in the small-scale sector, was a challenge because most fishers left directly from their villages each day, and not from harbours.

V K Varghese, Commanding Officer, Indian Coast Guard (ICG), Thiruvananthapuram, presented videos of search and rescue (SAR) operations to describe the challenges faced by rescue forces during the cyclone. Responding to the affected community’s grievances concerning the operations, Varghese clarified that the ICG protocol allowed it to even cross international boundaries for SAR. Shekhar L Kuriakose, Head, State Emergency Operations Centre, Government of Kerala, said that, post-Ockhi, the government had decided to change its warning protocol so that even ‘depression’ warnings by the IMD would now completely halt all fishing operations in particular areas.

The fourth panel on “Integrating sea safety into fisheries management and governance” addressed issues of sea safety; the working conditions of fishers; boat manufacturing and design; and the need for monitoring, control and surveillance measures in the Indian marine fishing sector. It was pointed out that fishing had always been considered an unsafe occupation, but the dare-devilry of fishers had to be complemented with safety precautions and reliable equipment, gear and vessels. This required consultations with, and the active participation of, the fishing community.

### Final panel

The final panel was on “Building back better, keeping nature and people in mind.” C M Muralidharan, Fisheries Consultant with the FAO, said that rehabilitation and reconstruction should aim at long-term sustainable

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probability of such severe cyclones in this basin. Recognizing that fishers need warnings specific to their fishing times and geographical zones, and the limitations of most warning systems, Balachandran recommended the use of innovative means like dynamic cones of uncertainty in the IMD bulletins.

Abhilash S, Assistant Professor at the Department of Atmospheric Sciences, Cochin University of Science and Technology, spoke about the need for coupled atmospheric-ocean models for cyclone prediction. Sajan Venniyoor, a community radio consultant, said that the use of multiple low-cost technology and media channels, including community radio and television, was essential to put the community at the centre of effective communication strategies.

The third panel on “Improving institutional co-ordination and collaboration in disaster response and relief” consisted of presentations by



Vallavilai fishing village, Tamil Nadu, India. During discussions in the first panel of the workshop, fishermen and fisherwomen from the Ockhi-affected villages shared their experiences of the disaster

development, integrating fisheries livelihoods, fisheries management and disaster preparedness. T Peter, Secretary of the National Fishworkers' Forum, said that traditional knowledge and scientific knowledge should be integrated to make coastal fishing communities resilient to disasters. It was also pointed out that Ockhi had caused unprecedented changes in the marine ecosystem, which had not been studied. In this context, strong measures had to be taken for the protection of the coast, including ocean literacy programmes; mapping of fragile reefs and biodiversity hotspots; and the preservation of traditional knowledge about local ecology and sustainable fishing practices.

Four group discussions at the end of Day One dealt with several issues raised in the panel discussions, adding a community and multi-stakeholder perspective. The group presentations on the second day evoked lively discussions which enriched the Workshop Statement (see Box). It made several recommendations

towards disaster preparedness and disaster-risk management to build the resilience of coastal communities to cyclones, natural disasters and climate change, stressing on the need for co-ordination at all levels and open consultation with, and participation of, fishing communities, applying a human-rights-based approach within the Sendai Framework for Disaster Reduction 2015-2030 and the SSF Guidelines.

#### For more



<https://www.icsf.net/en/monographs/article/EN/165-cyclone-ockhi-.html?limitstart=0>

#### **Cyclone Ockhi: Disaster Risk Management and Sea Safety in the Indian Marine Fisheries Sector**

<https://www.icsf.net/en/proceedings/article/EN/164-report-of-the-n.html?limitstart=0>

#### **Report of the National Workshop on Small-scale Fisheries, Cyclone Ockhi and Disaster Risk Management 29 to 30 May, 2018, Kerala, India**

<https://www.icsf.net/en/samudra/article/EN/78-4347-Comment.html>

#### **On Land, at Sea, Lives Matter**

<https://www.icsf.net/en/samudra/article/EN/78-4324-In-the-Eye-of-t.html>

#### **Natural Hazards: In the Eye of the Storm**

<https://www.icsf.net/en/samudra/article/EN/78-4325-A-Stitch-in-Tim.html>

#### **Cyclone Ockhi: A Stitch in Time**