Regional workshop on communicating flood early warning for last mile connectivity

2-4th October 2018
ICIMOD, Kathmandu, Nepal

Background

Across the Hindu Kush Himalaya, people are vulnerable to various types of disasters, threatening sustainable development and aggravating poverty in the region. Climate change and variability are likely to increase the intensity and frequency of flood events which are often transboundary in nature, which have major human, environmental and economic consequences. As evident from previous disasters, lack of proper institutional mechanisms for dissemination of flood early warning, limited understanding of flood early warning system from social and cultural perspectives, limited capacity of various agencies have resulted in significant loss of life, infrastructure and livelihoods. For example, the 2013 Uttarakhand flood in India killed more than 6,000 people. Moreover, women, girls and marginalized groups experience floods and weather-related hazards differently and more acutely than men.

Early warning systems play a critical role in minimizing the adverse impacts of floods by saving lives and assets, reducing displacement, and strengthening the resilience of vulnerable communities. However, the science, technology and governance behind early warning systems have spread unevenly across regions, countries and communities. Many developing countries have not benefited from advances in early warning systems as much as they should. An effective early warning system involves several actors across administrative scales, both vertical and horizontal as well as the communities, which are not homogeneous entities. This implies that flexibility is needed in the design and implementation of the system, particularly in effecting appropriate actions to save lives and to protect infrastructure and livelihoods. In order to maximize effectiveness, it is necessary to understand the implications of flood early warning in the context of capacities of these actors. It is also important to consider in the design the extent of coordination among them and to ensure that policy, legislations, regulations and protocols are in place as these provide the necessary mandates and help guide their actions. Together these shape the flood early warning system into an effective communications and action-oriented response component of the Early Warning System.

History has unfortunately shown that there are significant gaps in these systems, especially in reaching the “last mile” – the most vulnerable and exposed populations – with timely, understandable and actionable warning information. While the generation and availability of flood forecasts is both complex and important, it is equally important to ensure that these forecasts and early warnings are made available in a timely manner and communicated in understandable ways to the communities through a proper mechanism so that the early warning products are actionable.

To address the need for enhanced regional collaboration in flood risk reduction, ICIMOD developed the Hydrological Cycle Observation System (HYCOS) initiative which established a Regional Flood Information System (RFIS), in partnership with four of its Regional Member Countries (Bangladesh, Bhutan, Nepal and Pakistan) and through engagement with India and China as observers and with the World Meteorological Organization as a technical partner. The HYCOS initiative was instrumental in advancing the collection and sharing of real-time data by the participating countries for use in the RFIS. During HYCOS’ first funding period a total of 38 hydrometeorological stations were upgraded to allow real-time monitoring and transmission of data within the four partner countries Bangladesh, Bhutan,

Nepal and Pakistan. These advancements in monitoring allowed real-time data to be made available through a regional flood information system. This RFIS also allowed the introduction of advanced hydrological modelling to be applied, yielding credible information about future conditions in the HKH region.

Building on the achievements of HYCOS' earlier phase, the HYCOS: User Phase seeks to enhance the end user interface with particular emphasis on enabling gender integration in flood early warning systems, thereby reducing vulnerabilities of particular segments of the affected communities. It seeks to assess the communication pathways and dissemination gaps in flood early warning systems in the HKH region through development and assessment of case studies of good practices for better end user connectivity.

This HYCOS: User Phase also focusses on enhancing community responses to warning information through improved understanding of institutional mechanisms for communicating and disseminating early warning from the national to the local level. It also stresses capacity building and awareness of the end users themselves so they are better prepared to take timely actions to reduce losses. This is in response to preliminary findings from the strategic assessment of flood early warning system in Nepal that suggests social and cultural aspects are of paramount importance in transforming flood early warnings into understandable messages so that vulnerable groups can take appropriate and timely actions. This is challenging as such systems need to designed to meet the needs of rural women who are illiterate and normally speak their own mother tongue, which is not the same language used in the forecast centre.

Timely access to accurate, reliable and understandable flood information will be instrumental in increasing the resilience of such communities comprising women, girls and marginalized groups. Accomplishing this no small feat will also contribute to the 7th target of the Sendai Disaster Risk Reduction Framework, which aims to "substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030". As part of this initiative a regional workshop is planned by ICIMOD from 2-4th October in Kathmandu in collaboration with WMO.

Objectives

The objectives of the regional workshop is to bring together various stakeholders engaged in implementing flood early warning systems from the HKH region to:

- share their experiences and identify good practices in communicating early warnings of flood hazards and risks with a particular emphasis on women, girls, disabled, poor and marginalized groups;
- share advances and best practices of monitoring, forecasting of floods and communicating flood early warning;
- improve preparedness and response to flood early warning for disaster risk reduction and to enhance regional collaboration;
- share and discuss the findings of the strategic assessment of flood early warning in Nepal

Participants

Participation will be by invitation. Key organizations from the HKH region implementing early warning systems which include National Meteorological and Hydrological Services, disaster management

authorities, humanitarian organizations and research institutes will be invited to participate and share their experiences.

Date and Venue

2-4 October 2018

ICIMOD, Kathmandu, Nepal

Tentative Programme Schedule

Day 1

Opening Session
Session 1: Generation of early warning advisories for disaster risk reduction by National Meteorological and Hydrological Services
Session 2: Use of early warning advisories for decision making and communicating it for flood risk reduction by Disaster management authorities
Session 3: Good Practices in communicating flood early warning from Practitioners.

Day 2:
Session 4: Strategic assessment of flood EWS in Nepal – presentation of the methodology and findings
Session 5: Group Work – Accuracy and reliability and how warning levels are determined, Risk based warning, institutional coordination, communication means and understandable products, and community responses to warnings
Session 6: International good practices in communicating flood early warning.
Session 7: Synthesis and Closing

Day 3:
Discussion on development of case studies