



## Training Workshop on Multi-Hazard Early Warning Systems with focus on Institutional Partnership and Coordination

**22-25 March 2010**

**Radisson Europa Hotel and Conference Center  
San José, Costa Rica**

[http://www.wmo.int/pages/prog/drr/events/MHEWSCostaRica/index\\_en.html](http://www.wmo.int/pages/prog/drr/events/MHEWSCostaRica/index_en.html)

### INSTRUCTIONS FOR THE TRAINERS

#### **Format of the session:**

- The training sessions on good practices in early warning systems will be held during session 2 of the Training Workshop (11:00 to 18:00 on 22<sup>nd</sup> March and 09:00 to 12:30 on 23<sup>rd</sup> March 2010).
- Please see the Agenda (Doc 2a) for the exact time of your training session.
- Each training session is allotted one hour and a half (90 minutes) to deliver the training.
- We propose the following programme for each 90-minute training session:
  - An up-to 10-minute movie of your country's early warning system (if available).
  - A 60-minute lecture that includes interactions with the audience (see next section).
  - 10-20 minutes of discussions and Q&A engaging all the participants.

#### **Format of the lecture on your national early warning system:**

Please prepare your 60-minute lecture per the following requirements:

- The trainers from the National Meteorological and Hydrological Services and the Disaster Risk Management Agencies should prepare a joint Power Point presentation of the Multi-Hazards Early Warning System in their country focusing on institutional partnerships and coordination in early warning systems.
- The training could be conducted in English, French or Spanish and will be simultaneously interpreted in the two other languages. However, the Power point presentation should be in English.
- The Power Point Presentation should include slides based on the proposed template (Annex I). For each slide of the template, 3-4 slides could be developed on the issue.
- Exchanges with the participants will be highly encouraged during the lecture.
- We propose that you design your lecture with 5 to 6 main sections with clear stopping points. Upon delivery of each section, please pause and ask if there are any questions. Answer 2 to 3 clarifying questions, and proceed with delivery of the next section.
- Following the presentation, the moderator of the session will facilitate a 10-20-minute Q/A to ensure a rich discussion engaging the participants and the trainer.

## Overview of Early Warning system and the role of National Meteorological and Hydrological services

Please use this template to guide the development of the presentation of your Early Warning System. For each slide in this template, a series of 3-4 slides can be developed to address the issues mentioned.

## Background of the establishment of EWS in your country

- Please provide information on the factors that led to the establishment of EWS in your country

## Governance and Institutional Arrangements

Policy, institutional and legal frameworks

- Describe your countries disaster risk management policy, legislation and legal frameworks, institutional coordination mechanisms for emergency preparedness and response planning. Are responsibilities mandates procedures and protocols for emergency situations clearly reflected?
- Are there authoritative agencies identified through legislation for issuance of warnings of different hazards. If yes, please describe.
- Describe how the role of the National Meteorological and Hydrological Services (NMHS) is reflected in emergency preparedness planning and related legislation(s).

## Governance and Institutional Arrangements

National to local emergency planning and related linkages to early warning systems

- Describe the process of emergency preparedness and response planning at national to local levels. Who is responsible to coordinate the planning at different levels?
- Is the NMHS providing support for the emergency preparedness planning process? If yes, please describe.

## Governance and Institutional Arrangements

Organizational structure for implementing the plans for early warning systems

- Provide a list of agencies that are responsible for management and implementation of different components of early warning systems.
- Provide an organizational chart of the early warning system from national to local level.
- Provide an early warning system organizational decision-making diagram, showing roles and responsibilities of different agencies, including the NMHS from national to local levels.

## Governance and Institutional Arrangements

Institutional roles and working relations

- Give a brief description of how your early warning system works operationally. Identify the working relationships among agencies involved.
- Are there specific operational procedures for coordination among the agencies? Please describe.
- What is the role of the NMHS and its working relationships with other agencies? How does the NMHS collaborate with other technical agencies to leverage resources, capacities and expertise in early warning systems?

### **Governance and Institutional Arrangements**

Financial considerations for sustainability of different components of early warning systems

- Describe how the different components of the early warning system are financed. Are there dedicated financial resources for maintenance and sustainability of the system (e.g. observing networks, communication systems, emergency response, etc.).
- What are the sources of funding for the agencies and infrastructure needed to support different components of early warning systems?
- What are the sources of funding to the NMHS to for development and maintenance of its capacities (Observing networks, 24/7 operational forecasting, communication, expertise, etc) to support the early warning system ?

### **Utilization of risk information in emergency planning and warnings**

- Is hazard-risk information utilized in emergency preparedness and response planning at national to local levels? If yes, describe how and who is responsible for what? What is the role does the National Meteorological and Hydrological Services?
- Are there established mechanism(s) for collection and sharing of hazard and vulnerability data? If yes, please describe the mechanism(s), who is responsible for collecting what data? Is this process standardized? Do you have national database(s) of hazards and vulnerability data for various environmental hazards? How is this managed?
- Do you have national to local hazard-risk maps, for what risks?

### **Hazard monitoring, forecasting, and mandates for warning development**

- For the hazards provided in Annex I, Please specify for which the hazards relevant to your country, the NMHS has:
  - Has sole mandate for the development of the warning for the hazard (specify the hazard) (Type I Hazard);
  - Has joint mandate for the development of the warning hazard for the hazard (specify the hazard) (Type II Hazard);
  - Provides information to other agencies that have the mandate for the development of the warning for the hazard (specify the hazard and the agency responsible for development of the warning) (Type III Hazard).
- Are there challenges for institutional coordination for the development of the warnings? If yes please describe the challenges and how they are addressed.

### **Warning dissemination mechanisms**

- Specify main dissemination mechanism(s) for delivery of warnings to the authorities and the public (media, dedicated communication lines, internet, cell phone network, volunteers, etc)? Who is involved in this dissemination mechanism(s)? Are there redundant/backup mechanisms in chance the primary channels for warning communication fail?
- How do you assess the effectiveness of the dissemination mechanism(s) in ensuring that the warnings reached their target audiences in a timely manner?

### **Emergency preparedness and response activities (national to local)**

- Describe the national to local emergency plans and response procedures.
- Are there sufficient resources available for implementation of the plans and response actions? If no, please elaborate.
- Are warning levels used in your early warning system? Who determines them? How do these levels linked to emergency preparedness and response decisions and actions at national to local levels? And how?
- Are there public education programmes (formal and informal) on warnings and authoritative sources, the various hazards and related risks, and emergency preparedness and response procedures? If yes, please describe.

### **Improvement of overall operational framework of the early warning system**

- Please identify and describe evaluation and feedback mechanisms within the operational early warning system that help to improve:
  - The system as a whole.
  - Products and services provided by the National Meteorological and Hydrological Service to disaster risk management agencies and other stakeholders.
  - Operational coordination mechanisms of the disaster risk management stakeholders with the National Meteorological and Hydrological Services
- Has there been specific disaster(s) or hazard event(s) that has lead to a significant re-evaluation and improvement of your EWS? If yes, please specify and elaborate.