



## **SYMPOSIUM ON MULTI-HAZARD EARLY WARNING SYSTEMS FOR INTEGRATED DISASTER RISK MANAGEMENT**

*23-24 May 2006, WMO Headquarters, Geneva, Switzerland*

### **FIRST ANNOUNCEMENT**

#### **Background**

Every year, disasters caused by a wide range of hazards impact many communities around the world, leading to loss of human lives, destruction of social and economic infrastructure, and degradation of already fragile ecosystems. While natural hazards may not be avoided, integration of risk knowledge and early warnings in disaster risk management strategies can prevent them from becoming natural disasters.

During the Second World Conference on Disaster Reduction (Hyogo, Kobe, Japan, 18-22 January 2005), 168 countries adopted the Hyogo Framework for Action 2005-2015 and identified five high priority areas of which the second stresses the need for “identifying, assessing and monitoring disaster risks and enhancing early warnings” as a critical component of disaster risk management. Furthermore, the Hyogo Framework for Action stresses that disaster risk management must be addressed with an integrated and multi-hazard approach. Following the Second World Conference on Disaster Reduction, at the 2005 United Nations World Summit (New York, September 2005), Governments requested the establishment of worldwide early warning systems for all natural hazards, building on existing national and regional capacities to complement broader disaster preparedness and mitigation initiatives.

Significant initiatives worldwide have emerged to develop national and regional strategic plans for disaster risk management. Furthermore, the report of the UN Secretary General, “In Larger Freedom: towards development, security and human rights for all,” A/59/2005, to the UN General Assembly on 21 March, 2005, requested the Secretariat of the International Strategy for Disaster Reduction (ISDR) to coordinate a Global Survey of the status (i.e., current capacities and major gaps and needs) of Early Warning Systems. Guided by an ISDR Inter Agency Task Force (ISDR/IATF) Working Group, co-chaired by the World Meteorological Organization (WMO) and United Nations Office for Coordination of Humanitarian Affairs (OCHA), the report of this Global Survey will be concluded during the first quarter of 2006. Following these developments, the Government of Germany is taking critical steps to hold the Third International Early Warning Conference, on 27-29 March 2006 in Bonn, Germany to stimulate and help with the implementation of concrete early warning projects on all continents.

#### **Importance of Effective Early Warning Systems as an Integral Part of Disaster Risk Management**

A fundamental precondition for national disaster risk management is availability of well-functioning “end-to-end early warning systems” that deliver accurate information in a timely manner to authorities, risk managers and populations at risk. Such systems must rely on commitment,

collaboration, coordination, and information sharing from international to local levels. Key components of an end-to-end early warning system involves:

- Observing, monitoring, and developing hazard forecasts and warnings;
- Assessing the potential risks and integration of risk information in the warning messages;
- Distributing rapidly and reliably, understandable warnings to authorities, risk managers and the population at risk;
- Preparing and responding to warnings at all relevant levels to minimize the potential impacts;
- Educating the public and other stakeholders to enhance understanding of the potential risks and to enable them to take effective actions.

### **Need for a Multi-Hazard Approach for the Development of Effective Early Warning Systems**

Development and sustainability of effective end-to-end early warning systems is costly and resource intensive. To this end, a multi-hazard approach would enable building on the existing early warning systems capacities, infrastructures and activities of various partners, while realizing the synergies at different stages of EWS. These include:

1. Exploiting the maximum capacity of observational networks to observe multiple hazards when technically appropriate,
2. Utilising technical operational regional and national warning centres and their services for multi-disciplinary multi-hazard forecasting capacities, when technically appropriate,
3. Utilising the global telecommunication networks for dissemination of hazard data and related information,
4. Using the national dissemination (alert) and response mechanisms frequently to improve them overtime, and
5. Ensuring maintenance and sustainability of these systems.

### **Need for Strategic Partnerships and Coordination for Implementation of End-to-End Early Warning Systems**

Over the years, specialised agencies of the United Nations have worked extensively with their Members (through the relevant national agencies), to develop technical capacities for monitoring, detecting, and forecasting of a wide range of hazards in support of national warning systems. For example, WMO through a coordinated network of National Meteorological and Hydrological Services of its 187 Members, has developed the global operational infrastructure for national warnings of weather-, water-, and climate-related hazards such as tropical cyclones, severe storms, extreme temperatures, droughts and floods. UNESCO-IOC is coordinating the development of regional tsunami warning systems, and FAO and WHO have develop global mechanisms for issuance of warnings for food security and health, respectively. Many other UN, international and regional organisations such as UNDP, World Bank, UNEP, IFRC, OCHA, UNICEF, ADRC, ADPC have been working in the areas of disaster risk management such as legislative and development issues, vulnerability and risk assessment, national warning mechanisms, emergency preparedness and response planning, and public education.

*While these efforts have led to progress in different aspects of early warning systems, there still remain many challenges and gaps on legislative, financial, organisational, technical, operational, training and capacity building levels, to ensure that early warning systems are implemented as an integral part of disaster risk management strategies within a multi-hazard framework in all countries, particularly those with least resources. The requirements and constraints in addressing these gaps need to be defined and prioritised and clear follow-up actions need to be identified and implemented through close strategic partnerships at international, regional and national levels.*

## **About the Symposium**

With a deep commitment to fostering partnerships globally for advancing the Hyogo Framework for Action, particularly related to identifying, assessing and monitoring disaster risks and enhancing early warnings, following the Third International Early Warning Conference, WMO is facilitating a multi-disciplinary Symposium on "Multi-Hazard Early Warning Systems for Integrated Disaster Risk Management." This Symposium will be held on 23-24 May 2006, at WMO Headquarters in Geneva, Switzerland, co-sponsored by several international agencies.

## **Symposium Participants**

Experts from a number of international, regional and national organizations and the private sector, which contribute to different aspects of early warning systems, are invited to participate in this event. This Symposium will bring together nearly 80 policy, financial, telecommunications, scientific, technical, media and risk management experts.

## **Symposium Goals and Outcomes**

The goal of this experts' Symposium is to investigate benefits, requirements and constraints with respect to multi-hazard approach to early warning systems and integration of early warnings in disaster risk management. Legislative and legal, financial, organizational, technical, operational, training and capacity building issues will be addressed along the following four dimensions:

1. Observing, detecting, monitoring, forecasting and warnings of hazards;
2. Risk identification and integration of risk knowledge in warnings;
3. Communication and dissemination mechanisms;
4. Integration of risk information and early warnings in emergency preparedness, planning and response.

The expected outcome of the Symposium is a road map with concrete actions identified at national, regional and international levels, to guide implementation and sustainability of early warning systems within a multi-hazard approach as an integral part of disaster risk management. Furthermore, mechanisms for measuring and monitoring progress at international, regional and national levels will be proposed. It will also be a "living document", shared with stakeholders at national, regional and international levels for further consultation and feedback after the Symposium. This Symposium is part of the process to facilitate further global partnerships and coordination of activities to advance the development, and utilisation of multi-hazard early warning systems as an integral part of disaster risk management.

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