



Training Workshop on Multi-Hazard Early Warning Systems with Focus on Institutional Partnerships and Coordination

22-25 March 2010
San Jose, Costa Rica

http://www.wmo.int/pages/prog/drr/events/MHEWSCostaRica/index_en.html

INTRODUCTION

Between 1980 and 2007, nearly 90% of disasters related to natural hazards, 70% of casualties and 75% of economic losses were caused by meteorological, hydrological and climate related hazards such as tropical cyclones and storm surges, floods, droughts, and extreme temperature (source: EM-DAT, see References). As shown in Figure 1, over the last 50 years, while economic losses linked to extreme hydro-meteorological events have increased by nearly 50 times, loss of life caused by these hazards has decreased significantly. This has been attributed to linking information from monitoring and forecasting of hydro-meteorological hazards to effective emergency preparedness, especially in some of the most vulnerable countries.

Effective early warning systems (EWS) have four components including: (1) detecting, monitoring and forecasting hazards; (2) analysing risks; (3) disseminating timely warnings, which should carry the authority of government; (4) activating emergency plans to prepare and respond. These four components need to be coordinated across many agencies at national to community levels for the system to work. Failure in one component or lack of coordination across them would lead to the failure of the whole system.

Based on detailed synthesis of documented good practices and consultation with experts, WMO together with other UN partners have developed the first guidelines on “Institutional Partnerships and Coordination in Multi-Hazard Early Warning Systems.” Furthermore, in collaboration with countries with good practices, a training workshop has been designed, which

is carried out in conjunction with national and regional cooperation projects focused on the development of disaster risk reduction and EWS capacities.

SCOPE

The scope of the training workshop on “Multi-Hazard Early Warning Systems with Focus on Institutional Partnerships and Coordination” includes policy, planning, legislative, institutional partnerships and cooperation aspects of EWS. Within this context, the workshop highlights the importance of a strong partnership between the National Disaster Risk Management Agencies and the National Meteorological and Hydrological Services.

TARGET AUDIENCE

The workshop is targeted at directors and senior executives of National Disaster Risk Management Agencies, National Meteorological and Hydrological Services and other ministries and agencies engaged in EWS in Central America and the Caribbean.

SPECIFIC OBJECTIVES

1. Experts from Disaster Risk Management Agencies and National Meteorological and Hydrological Services from five countries (Cuba, France, Italy, China/Shanghai and USA) will share their good practices in EWS, experiences and lessons learnt;
2. Regional initiatives in support of disaster risk reduction and particularly EWS will be discussed;
3. National capacities and gaps related to planning, legislative, institutional and operational aspects of EWS of countries in the region will be explored;
4. Priorities for the development of national EWS and opportunities for regional cooperation will be identified.

EXPECTED OUTCOMES

1. Participants will benefit from exchanging experiences with experts of other countries and

active discussions conducted according to a systematic approach to EWS;

2. A document will be developed highlighting priorities of action for national EWS development and concrete areas for regional cooperation for the region.

The outcomes will be used in facilitating a more coordinated approach among regional and international development and funding agencies, supporting EWS projects.

FORMAT

The workshop involves five sessions, as described below:

Session 1

Background and objectives of the workshop will be presented.

Session 2

Leading national experts from Disaster Risk Management Agencies and National Meteorological and Hydrological Services from several countries with good practices will present their national EWS and share their experience and lessons learnt in an interactive session with the participants.

Session 3

Regional initiatives and projects in disaster risk reduction and EWS will be discussed.

Session 4

The participants will be divided into interactive working groups to review and analyze their national EWS capacities, gaps and needs. The working groups will prepare recommendations for priorities of action for the development/strengthening of national early warning systems and concrete areas for regional cooperation that would support national EWS.

Session 5

The results and outcomes from the working groups will be discussed with all participants, and recommendations will be finalized.

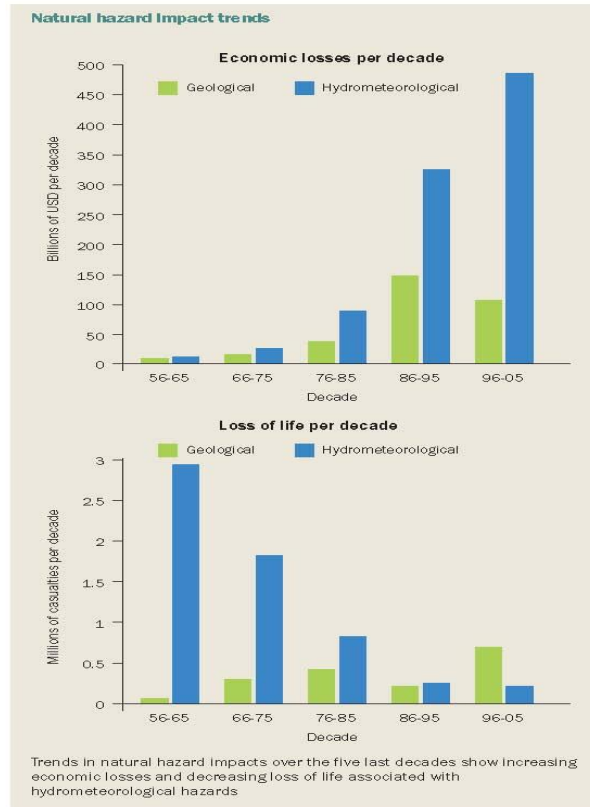
BACKGROUND

Early Warning Systems (EWS) have increasingly been recognized at the highest political level as a critical tool for saving of lives. With a history of recurrent disasters, a number of lower income countries such as Bangladesh and Cuba have already made dramatic strides in reducing mortality risk by developing effective early warning systems for hydro-meteorological hazards such as tropical cyclones, storm surges and related flooding. In Cuba, the government has made protection of lives their highest priority, investing significantly in the development of the Cuban Tropical Cyclone Early Warning System. Despite being hit by five successive hurricanes in 2008, only 7 deaths were reported in Cuba. In Bangladesh, following the major storm surges in 1970 and 1991, which led to nearly 300,000 and 140,000 casualties, respectively, the government together with the Red Crescent Societies of Bangladesh has made significant progress with protection of lives through the implementation of the Cyclone Preparedness Programme, which resulted in retaining mortality risk to less than 3500, during the super cyclone Sidr, in November 2007. In France, following the significant impacts of the December 1999 winter storm Lothar, the emergency planning and response mechanisms were upgraded and the French Vigilance System was developed. Following the intense heat wave in 2003, which led to over 15,000 deaths in France, the Vigilance System was upgraded to include heat/health warnings, and following a major flood in 2007, the system was upgraded to include flood risk warnings.

Over the past decade, there has been significant international attention to this topic, including three international EWS conferences (hosted by the government of Germany), two international experts' symposia on Multi-Hazard EWS (organized by the World Meteorological Organization – WMO in collaboration with UN-International Strategy for Disaster Reduction, other UN and international partners), and the Global EWS Survey Report requested by the former UN Secretary General, Kofi Annan (See References Section).

Despite this attention, there remain many challenges on legislative, financial, institutional, technical and

operational aspects at national to community levels to ensure that EWS are implemented as an integral part of disaster risk reduction strategies in all countries.



Source: EM-DAT: The OFDA/CRED International Disaster Database

Figure: Economic loss and loss of life from natural hazards per decade

WMO in cooperation with other UN and international partners as well as its Members has developed a systematic process for documenting good practices in EWS. This has involved extensive consultations with experts during two international symposia and various regional and national events. A standard template for documentation of good practices has been developed and used by countries to document their experiences consistently.

To-date four good practices have been documented through a multi-agency process, including, (i) Bangladesh Cyclone Preparedness Programme, (ii) Tropical Cyclone Early Warning System of Cuba, (iii)

French “Vigilance” System and, (iv) Shanghai Multi-Hazard Early Warning and Emergency Preparedness Programme. During the Second International Expert Symposium on Multi-Hazard EWS (May 2009), a number of other countries’ EWS were identified as good practices and have been invited to document their experiences. These documented practices along with guidelines on “Institutional Partnerships and Coordination in Multi-Hazard EWS” will be published in 2010.

REFERENCES

1. EM-DAT is the database of Université Catholique de Louvain - Brussels – Belgium - The OFDA/CRED International Disaster Database - www.em-dat.net.
2. First International Conference on Early Warning (Potsdam, 1998) www.geomuseum.com/ewc98/
3. Second International Conference on Early Warning (Bonn, 2003) www.ewc2.org/pg000001.htm
4. Third International Conference on Early Warning (Bonn, 2006) (www.ewc3.org)
5. First Experts’ Symposium on Multi-Hazard Early Warning Systems (Geneva, 2006) (www.wmo.int/pages/prog/drr/events/ews_symposium_2006)
6. Second Experts’ Symposium on Multi-Hazard Early Warning Systems (Toulouse, 2009) (www.wmo.int/pages/prog/drr/events/MHEWS-II/index_en.html)
7. Global Early Warning Survey (2006) [www.reliefweb.int/rw/lib.nsf/db900sid/AMMF6VKH6Z/\\$file/UNISDR-Sep2006.pdf?openelement](http://www.reliefweb.int/rw/lib.nsf/db900sid/AMMF6VKH6Z/$file/UNISDR-Sep2006.pdf?openelement)

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