



**SYMPOSIUM ON MULTI-HAZARD EARLY WARNING SYSTEMS
FOR INTEGRATED DISASTER RISK MANAGEMENT**
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**OCHA Background Paper for Session V: Integration of Risk Information and
Early Warnings in Emergency Preparedness, Planning and Response**

Ricardo Mena, OCHA-Geneva

Early warning, within the larger risk reduction agenda, constitutes a critical element of disaster preparedness and response, areas in which OCHA has significant responsibilities;

It is now widely acknowledged that many communities have to contend with multiple hazards (geological: earthquakes, tsunami, volcanic activity; hydro-meteorological: landslides, typhoons/hurricanes, floods, drought; as well as technological accidents). Consequently, a multi-hazard approach should be adopted.

OCHA has an important role as catalyst in disaster preparedness within its overall remit of coordination, policy development and advocacy.

OCHA supports UN Country Teams and national governments in the establishment/strengthening of the three basic elements of effective EW systems, namely:

- Forecast and prediction (technical scientific monitoring and interpretation)
- Warning/data processing and dissemination (decision-making and response-oriented alerts)
- Early precautionary measures including evacuations as necessary

If each of these elements is seen as an end in themselves instead of as one element of a greater system that aims at saving lives, the EW system will not function. A good forecast and prediction system does not serve its purpose if it stands alone and is not adequately linked with, for example, the early precautionary measures or the dissemination element of the EW system. So, if for example the relevant authority disseminates a hurricane warning, but the population at which it is aimed does not have the means to evacuate or is not familiar with the precautionary measures that should be taken, the capacity to forecast and predict an event although present is of little or no use.

A recent case that illustrates the above is the dramatic situation lived by vulnerable groups in the city of New Orleans last year, when a hurricane warning was issued as *Katrina* approached the Gulf Coast in the United States. The evacuation of high-risk areas was ordered but people without the necessary means was not able to do so.

Consequently, the mutual dependence between the different elements of EW systems needs to be considered as a fundamental aspect that cannot be overlooked or neglected.



In the area of **Forecast and Prediction**, OCHA assists governments to achieve the target established during the IDNDR of obtaining ready access to global, regional, national and local warning systems and broad dissemination of warnings.

It facilitates efforts to link the work being done on Early Warning by the different UN organisations and bodies with that of the Inter-Agency Standing Committee's Sub-working group on Preparedness and Contingency Planning, in particular with regards to the HEWS web site and the Early Warning to Early Action initiatives.

OCHA is working together with relevant entities dealing with EW issues, particularly WMO, WFP, UNDP, ISDR, IFRC, The World Bank, UNESCO, UNEP to develop a UN system wide integrated strategy on Global EWS. Collaboration with these organisations has already produced tangible results such as the recently developed **Consortium Package** that aims at assisting requesting Governments affected by the Indian Ocean tsunami to develop national plans that will enable them to make an end-to-end early warning system truly operational.

Regarding the **Warning Processing and Dissemination** element of EW systems, through its network of Regional Offices and Regional Disaster Response Advisors (RDRAs), OCHA is supporting the establishment of regional and national Multi-hazard Early Warning Platforms. This includes support for national assessments to match available EWS with potential hazards and identify possible gaps.

OCHA also assists regional organisations to articulate global/regional EWS with particular needs of individual countries and in facilitating EW practices among adjacent countries.

OCHA promotes linkages among all stakeholders involved in the EW process, including the incorporation of hazard-specific EW into other existing EWS, and the sharing of relevant information at all levels. The virtual On-Site Operations Coordination Centre (**v-OSOCC**), the Global Disaster Alert Coordination System (**GDACS**) initiative and the Inter-Agency Standing Committee's **HEWS** web site and **Early Warning Early Action** reports constitute the basis on which this support is built upon.

In this context, OCHA promotes the establishment/strengthening of EW units within national disaster management systems, and works to ensure that EWS are adapted to local capacities and realities and fostering south-south collaboration and sharing of best practices whenever possible.

The political dimension regarding the dissemination of warnings is an issue that should be addressed, particularly in the case of natural phenomena for which there might be some degree of scientific uncertainty or highly complex early warning models with a margin for error that could lead to a 'false' alarm.

The extent of economic damage that a population can suffer if a 'false' alarm is disseminated can be of considerable proportion. That said, the lack of action in such cases could also be disastrous if the phenomenon in question does indeed occur. Finding the balance between political interests and scientific accuracy and the well being of the population can become a difficult dilemma.



In this context, information strategies to counterbalance the negative effect of being labelled as a high-risk community should be put in place by local authorities. In fact, if a community can show that it takes the risk to which it is exposed seriously and invests in emergency preparedness measures and public awareness and education campaigns, the community's image to the outside world will be greatly improved. Emergency Preparedness Programs such as the 'Tsunami ready community' are a good example of how an apparent disadvantage can be turned into an opportunity.

Another important element regarding warning processing and dissemination is the quality of the 'message' sent to the community that in many occasions is not well prepared and comes from sources that do not have credibility in the receiving end. The type of language used and the 'translation' of technical information for an effective risk communication with the laymen are aspects that are frequently overlooked. Consideration to the community's socio-cultural context and realities needs to be factored into the process leading to the preparation of warning and alert messages since the very early stages.

Precautionary Measures

OCHA is organising regional meetings with the participation of decision-makers of National Disaster Management Agencies and EW centres to raise the level of political awareness and improve their level of readiness to confront seasonal hydro-meteorological phenomenon. One of such meetings was organised recently in Guatemala with the participation of all Central American Nations in preparation for the 2006 Atlantic hurricane season which, according to most scientific forecasts, is likely to produce more tropical storms and hurricanes than average.

In this same context, the development of public awareness programmes and familiarisation of potentially affected populations with the hazards to which they are exposed, including the development of standard alert messages to be passed on to the public and supporting the organization/management of simulation exercises are important activities that should be supported.

Finally, I would like to underline the importance of the emergency planning process that aims at developing the capacities of disaster response agencies and communities to be ready and well organised and coordinated so as to respond effectively in case a warning is disseminated. One of the bases for the development of the emergency plan is credible disaster scenarios based on a historical and scientific analysis of the potential risks a community faces and the likelihood of those risks causing adverse impact. This analysis is in most cases illustrated in the form of hazard maps, depicting the areas where damage can occur, with varying degrees of intensity.

The successful execution of the emergency response plan will depend heavily on the level of participation of the community in the planning process and the exercising of the plan through simulations and drills. In real situations, the triggering mechanism for the activation of the plan will be a warning or alert message coming from an Early Warning System or the actual occurrence of the phenomenon.