



CDEMA
The Caribbean Disaster
Emergency Management Agency



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

GROUP A Conclusions and Recommendations

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Governance and Institutional Arrangements

1. All countries have legislations for both their Civil Protection Systems, NMHSs and geological services, but in practice, they are not necessarily applied.
2. Governments should decidedly support the strengthening of the civil protection, meteorological, hydrological and geological services as a percentage of their Gross National Product, which must be invested in them given that they are institutions directly linked to the national development.
3. It is necessary to institutionalize the civil protection agencies and the national meteorological and hydrological services to the local levels, to prevent them from becoming vulnerable to governmental changes which truncate their programmes.

Utilization of Risk Information in Emergency Planning and Warnings

1. Transnational basins require cooperation and information exchange between countries.
2. With respect to information about hazards, vulnerability and risks:
 - It is found from different sources, formats and scales not being accesible for regional integration.
 - Little information about vulnerability not allowing for future and present risks evaluation.
3. For warnings from international organizations such as those for Tsunamis, regional communication mechanisms must be identified to exchange information, taking advantage of existing infrastructure s such as the WMO Global Telecommunications System.

Hazard Monitoring, Forecasting and Mandates for Warning Development

1. It is necessary to standardize, by the national civil protection authorities, the protocols at a regional level for warnings dissemination (colors, formats, etc.).
2. It is necessary for the countries to be prepared for technological changes in issues such as satellites and the formats for data exchange. Special care has to be given to the compatibility of equipment and availability of spare parts
3. It is necessary to develop or strengthen a real time meteorological information system.
4. It is necessary to increase the coverage of monitoring networks and reduce the scale of mesoscale models to allow for better forecasts and scenarios, as well as better forecasts for large basins and basins with flash flood problems.

Warning Dissemination Mechanisms

1. In communicating forecasts and warnings, it is necessary to identify the needs of the media and the meteorological and hydrological services when providing their information and products. In this connection, training courses for institutional staff is required to close the gaps and improve communication.
2. It is necessary to include in the training programs of journalists, information related to the national civil protection authorities and the meteorological, hydrological and geological services. In the same manner, staff from technical institutions must receive training on communicating with their communities.

Emergency Preparedness and Response Activities (National to Local)

1. Drills should not only be demonstrative but for systematic and for evaluation purposes as well. Drills are evaluation tools.
2. Drills need to include the media since education is a cross-cutting issue and they need to be an integral part of the process.
3. National emergency plans are very general and additional work is needed to refine plans at local levels such as municipalities. All these plans need to be tested with drills.