Working Group C

Antigua&Barbuda, Colombia, Cuba, Dominica, Dominican Republic, Canada, France, Haiti, Netherlands Antilles & Aruba, St Lucia, St Vincent & Grenadines

Priority areas for the improvement of the EWS in the region

1. Governance and Institutional Arrangements (3)
2. **Utilization of risk information in emergency planning and warnings (5)**
3. **Hazard monitoring, forecasting, and mandates for warning development (7)**
4. **Warning dissemination mechanisms (5)**
5. Emergency preparedness and response activities (national to local) (2)

- Maintenance of the observing network (added priority) (1)
- For all the finance is needed. (1)

1 - Governance and institutional arrangement

Laws : gaps

- Gaps in legal framework :
  - Old laws. Sometimes made before independence and for aviation purposes
  - Imprecise laws:
    - Do not define roles and responsibilities
    - Do not integrate all hazards

- results sometimes : clashes of responsibilities. (ex : tsunami warning)

1 - Governance and institutional arrangement

Laws : recommendations

- International institutions should advocate and support (law templates) the revision of EWS legal framework,
- The legal framework should ensure a budget and human resources adequate to the responsibilities attributed,
- In some islands, legislation should allow the creation of an autonomous meteorological service,
- Inspiration from countries having quality management,
- Awareness campaigns for the decision-makers on minor a major meteorological events impacts
- National coordination mechanism

1 - Governance and institutional arrangement

Operational procedures and plans

- Insufficiently documented
- especially as regards stakeholder's responsibilities at all hierarchical levels
- It is noticed that political will is correlated to hazard frequency

Political Will

- It is noticed that political will and budget is correlated to hazard frequency

2 - Risk information

- Integration of risk information in warnings
- Risk mapping is key
- Regional risk map is not sufficient at national level
- Cooperation between MET and other service
- Mapping is costly and requires a lot of technical capacities

2 -Risk information : recommendation

- Discussion between NMHS, emergency management agencies and media to develop appropriate warning messages that include risk information for the population
- A program for the development of risk assessment and mapping capacities:
  - through regional / bi lateral projects
  - development of a regional methodology for risk assessment mapping capacity development including for each hazards, the data needs, the technical tools, (Check list)
  - regional database of hazard events, regional GIS

3 -Hazard monitoring, forecasting and mandates for warning development

7 countries out of 9 identified this as a priority for the improvement of their system

- Strong needs to strengthen MET capacities in terms of budget, HR, equipment
- Training without follow-up and or equipment provided are insufficient and do often create gaps in the system
- Lack of monitoring network, issue of maintenance.
- MET services should develop products usable by partners.

3 -Hazard monitoring, forecasting and mandates for warning development

Recommendations :

- Capacity enhancement should include trainings, but also equipment (hardware) and tools : softwares like forecast and hazards models at national level
- Joint training of MET services and their partners/users
  - MET services should be trained on the design of products that corresponds to the needs of emergency managers, technical partners, decision makers and population
  - Trainings of other partners on the use of MET products

4 -Warning Dissemination Mechanism

Public awareness and feedback

- Weaknesses of most current EWS are Public awareness and feedback mechanisms.
- Population needs and capacity should be taken into consideration in the design of EWS
- Recommendations:
  - Development of public awareness campaign to train the population on meaning of and appropriate reactions to warning messages. Crucial for short lead-time.
  - **Indicators and quality management monitoring mechanism should be developed** to evaluate EWS efficiency and in particular reception of warnings

4 -Warning Dissemination Mechanism

Warning dissemination systems

- Both modern and traditional should be used: (ie SMS and Fog Horn)
- Systems adapted to hazard type and lead time.
- Target of specific vulnerable population with adapted dissemination systems: ie Tourists, disable
- Public/private partnerships: ie media and telecommunication sector.

5 - Regional Partnership

Result of the survey, countries proposals:

- Comprehensive Regional DRR projects for capacity development and costly hardware (3)
- Timely meteorological information exchange (2)
- Regional institutions (CMO, CIMH, CDEMA, RA IV meetings, Hurricane Committee) (2)
- Bilateral projects with neighbouring countries (ie: on shared river basins)
- Training and capacity development (in eg maintenance, calibration, GIS, database, numerical models)

Regional Partnership Discussions

- Language barrier should not be underestimated
- Back-up of services - Regional contingency plans
- Conflicting levels of warning on shared islands
- Bilateral plans of cooperation, protocols, agreements

Regional Partnership Recommendations

- Creation of a working group on information exchanges and protocols for the lesser or greater Antilles
- To develop a list of expertise of the countries of the region, in a view of experience sharing.
- To develop, if needed, review, evaluate and improve regional contingency plans for EWS, such as back-up systems for NMHS
- A program for the development of risk assessment and mapping capacities

Thank you !