

World Meteorological Organization



**An Example of Pilot Project on
Early Warning Systems
for Hydro-Meteorological Hazards : Central
America**

**Maryam Golnaraghi, Ph.D.
Disaster Risk Reductions Programme**

Criteria for DRR Project Development

- (1) **Alignment** with WMO **Strategic goals** related to disaster risk reduction
- (2) Built on **priorities, requirements and needs** at regional, sub-regional, or country-grouping levels
- (3) Involve **integrated** planning, budgeting, implementation (leveraging WMO and partners' expertise and resources)
- (4) **Result-based** approach (Deliverables, timelines, evaluation)
- (5) Must be **scalable**
- (6) Ensure **sustainability** of capacities overtime
- (6) Ensure **end-to-end solutions** to the Members leading to better decision-making capacities
- (7) Extra-Budgetary **resource mobilization** strategy for implementation (if needed)

Overall

Project Management Framework

6 - Step Process

- (1) Built upon regional buy-in and partnership (leveraging)**
- (2) Scope out project concept, develop national demonstration projects**

Deliverables and timelines/Concept-of-operations/ Supporting infrastructure/DRR strategy /Planning pre- and post project actions/monitoring and evaluation/resource mobilization/

- (3) Implement demonstration project (~ 1-2 years)**
Build capacities / Validate concepts /Work out problem areas
- (4) Transit successful demos to operations**
- (5) Plan for Sustainability of capacities**
- (6) Project evaluation and broadening**
e.g., new cooperation's, other countries

Project Goal:

Strengthen operational EWS capacities
(National ↔ Local) through :

- Optimal utilization of existing technical meteorological and hydrological tools and capacities to support Emergency preparedness and response operations (national to local)
- Strengthening of operational cooperation and coordination between the NMHS, civil protection authorities and agencies and other key stakeholders (e.g., Media, Red Cross) in early warning systems
- Develop feedback mechanisms during and after events to improve NMHS contribution to the overall EWS system operations, coordination and planning

In many countries, early warning systems are not an integral part of disaster risk management

Communities at risk



NATIONAL SERVICES

Meteorological

Hydrological

Geological

Marine

Health (etc.)...



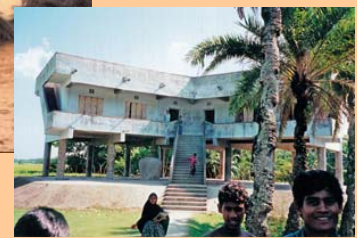
hazard warning



Goal: Strengthening Operational Early Warning Systems



4
Community Preparedness



5
feedback

preventive actions

risk warning

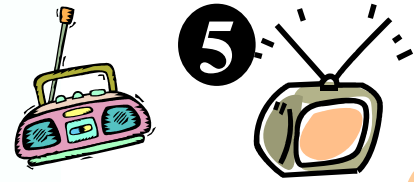
3



risk warning

feedback

5



5
feedback

risk warning

2

**COORDINATION AMONG
NATIONAL SERVICES**

Meteorological

Hydrological

Geological

Marine

Health (etc.)

Central American Pilot Project on EWS

Status

- Regional Planning and Advisory Group (RPAG) established
 - (Members: President of RA IV, Chair's of DRR & Hydro WG RAIV, World Bank, IFRC, ISDR, NOAA, OCHA)
- Two planning meetings were held
- Regional and national coordination
 - Hurricane Committee agreed to serve as regional mechanism to monitor and evaluate results and recommend future directions to RA IV
 - Buy-in at national level
 - Involving key organizations investing and implementing in the region
- Project proposals for 3 pilot countries developed
 - Costa Rica, El Salvador and Nicaragua
- Fund raising underway

Outcome of the first planning meeting Jan 18, 2008 (New Orleans)

- Mapped activities and initiatives of agencies in the region
- Discussed national DRR status and major gaps and needs
- Project Concept (need to further Scoped out)
- Selected demo countries (Criteria for selection)
- Project planning and implementation process
- Regional and national buy-in strategy
- Fund-raising strategy (later to be followed up WMO-World Bank)

Criteria for Pilot Countries

- National planning, legal framework and coordination mechanisms and committees for DRM exist
- Institutional capacity and coordination mechanisms for operational processes at national to local levels exist
- NMHS in the country has the capacity to built upon
- NMHSis willing to champion the project
- Existing collaboration and initiatives between NMHS, and other key stakeholders (e.g., other technical agencies, disaster risk management agencies, Red Cross Societies)
- Existing initiatives and activities that can be leveraged and built upon
- NMHSs has supported community-based programmes
- There are reasonable operational emergency preparedness and response mechanisms in place

Outcome of the Second planning meeting April 22, 2008 (Orlando, Florida)

- 1) Reviewed outcomes from national assessments (Costa Rica, El Salvador, Nicaragua)
- 2) Developed the project concept
- 3) Established process for project proposals:
 - Proposal development team
 - Timelines
 - Contributions of national agencies and partners
 - Proposal Review and submission for funding

Project Concept (I)

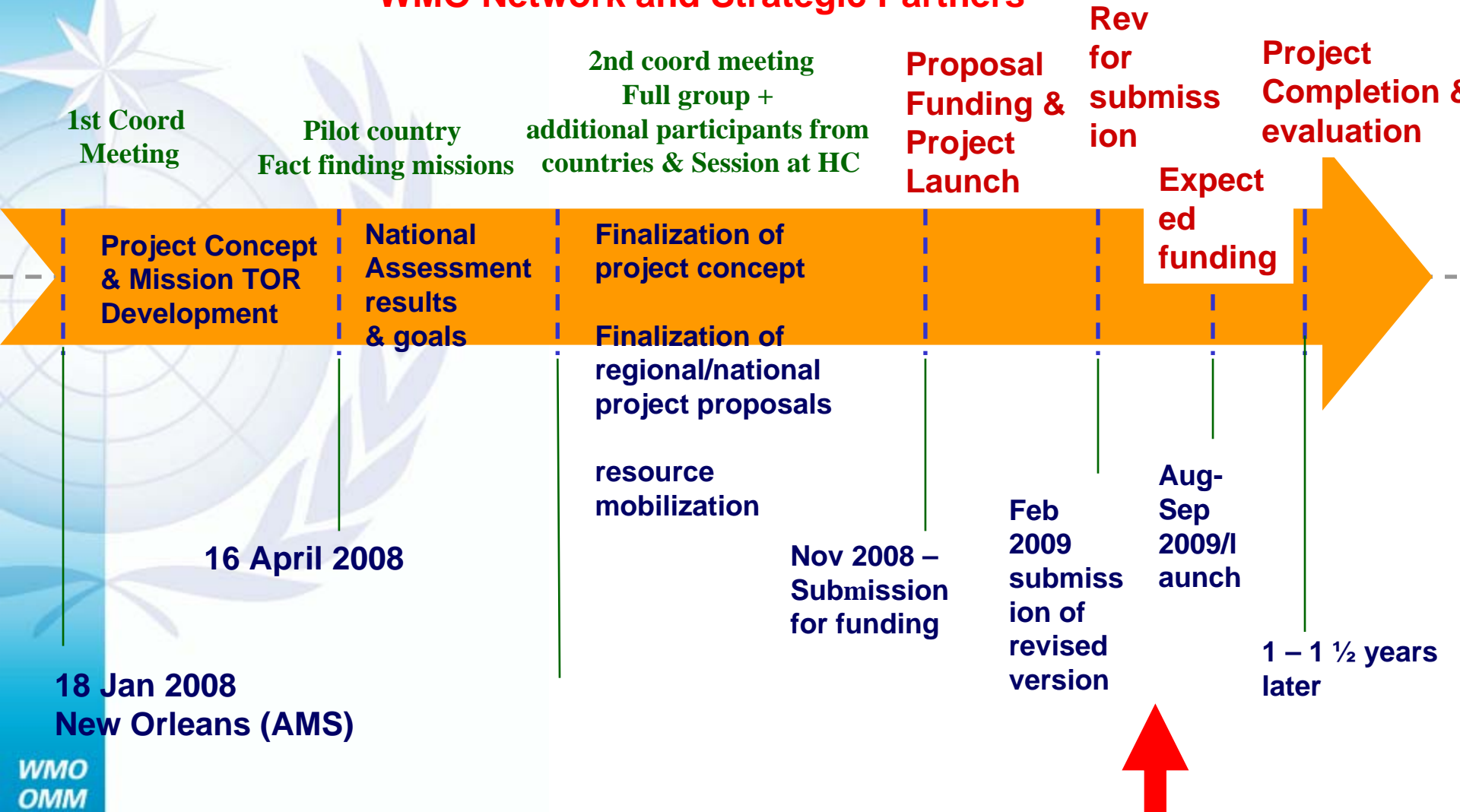
- National – Community Level Component involves:
 - Evaluation of Early Warning Systems as a fundamental component of Disaster Risk Management Policies, Legislation, and Planning (National to Local)
 - Linkages of National and Community Emergency Preparedness and Response to Warnings
 - Technical and Operational Capacities for Observing, Detecting, Monitoring, Forecasting and Warning of Hazards
 - Warning and other Product Development and Applications
 - Communication and Dissemination Mechanisms (National to Local)
 - Monitoring, Evaluation and Feedback Mechanisms to improve the Operational Systems (National to Local)
 - Early Warning System Framework Development and Improvement

Overall Project Implementation in Each Country

- **Phase I:** Pilot project coordination, organization, planning (Months 1 – 4)
- **Phase II:** Development and demonstration of operational concept of early warning system (Months 5 – 16)
- **Phase III:** Operational EWS evaluation and validation of the concept of operations (Months 17 – 22):
 - at national to community level; and
 - documentation of the project experiences and outcomes

Proposal development and project launch Timeline and Milestones

← Coordinate and consult closely with Members, WMO Network and Strategic Partners →



Partners

- This coordinated project will involve partners at national, regional and international levels with clear roles and responsibilities to leverage capacities for:
 - Project implementation / expansion
 - Access to stakeholders
 - Project financing

National Partners:

- NMHS
- Disaster Risk Management Agencies (National to Local)
- Red Cross Societies
- Local authorities and other ministries as relevant, others TBD

Regional and International Partners:

- WMO, World Bank, IFRC, ISDR, OCHA, NOAA, UNDP, WFP

Contribution to the Multi-Hazard Early Warning Initiative

- Proposal submitted to the World Bank GFDRR (November 2008)
- Revised version of proposal submitted (February 2009)
- Funding approval expected by August – September 2009
- Project launch expected late 2009

Project inception in Each Country

Will include:

- Symposium on Multi-Hazard Early Warning Systems (MHEWS) involving the 3 pilot countries based on
 - Guidelines on “The Role of NMHS in Multi-Hazard EWS, with Focus on Institutional Coordination and Collaboration” finalized by Second Experts’ Symposium on Multi-Hazard EWS (MHEWS-II), Toulouse, France on May 5-7, 2009
 - Documented good practices in EWS
 - The Bangladesh Cyclone Preparedness Programme
 - Cuba Tropical Cyclone Early Warning System
 - France Vigilance System; and
 - Shanghai Multi-Hazard Emergency Preparedness Programme.

Thank You

For more information please contact:

Maryam Golnaraghi, Ph.D.

Chief of Disaster Risk Reduction
Programme

World Meteorological Organization

Tel. 41.22.730.8006

Fax. 41.22.730.8023

Email. MGolnaraghi@WMO.int

<http://www.wmo.int/disasters>

