



World Meteorological Organization
Working together in weather, climate and water

Proposal in support of DRR and Multi-Hazard EWS

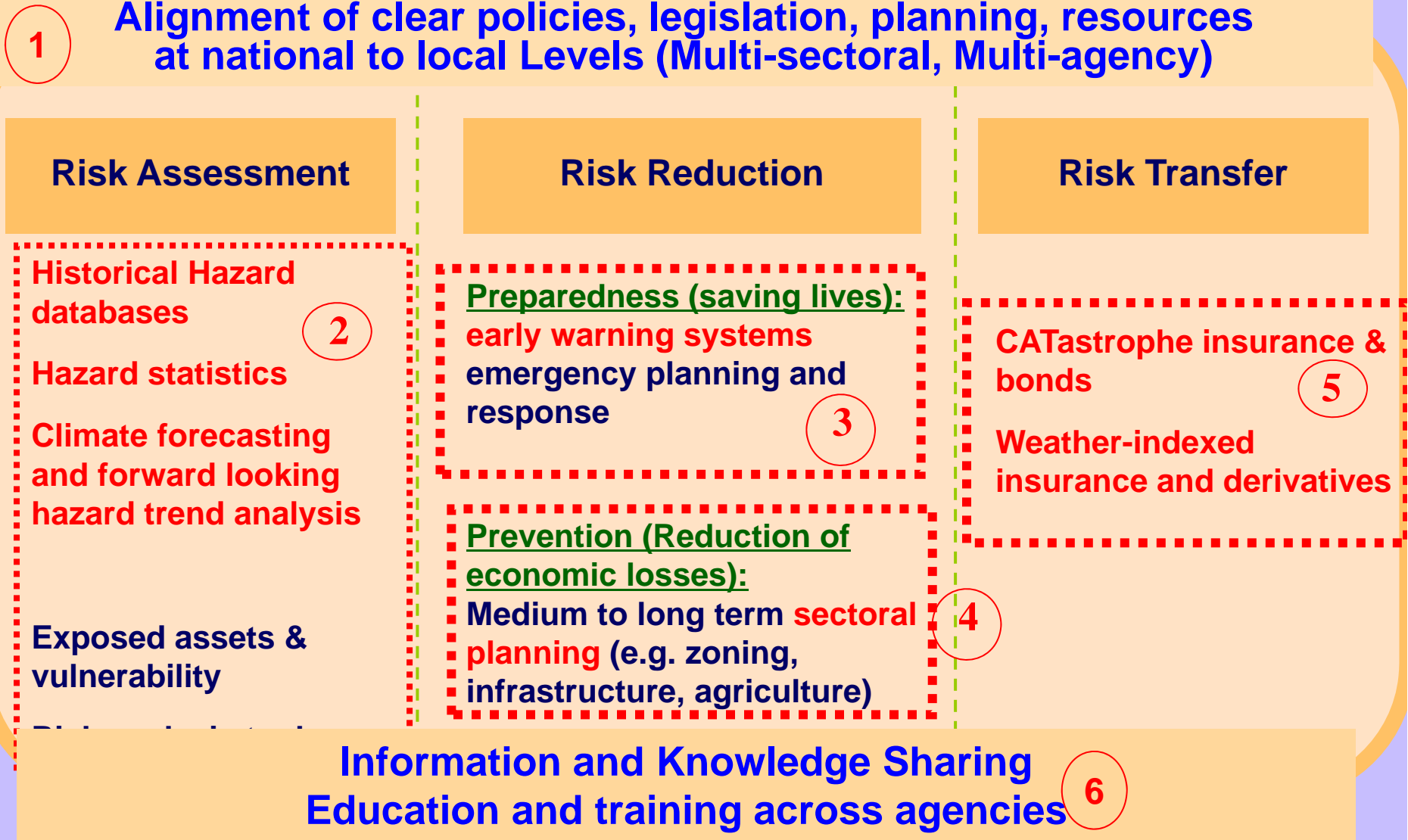
Dr. Albert Marti (Chair of Caribbean DRR sub-task team)

Mr. Juan Carlos Fallas (Chair of the RA IV DRR task team and sub-task team on Central America)

HC-33 Meeting
Cayman Island
8 March 2011



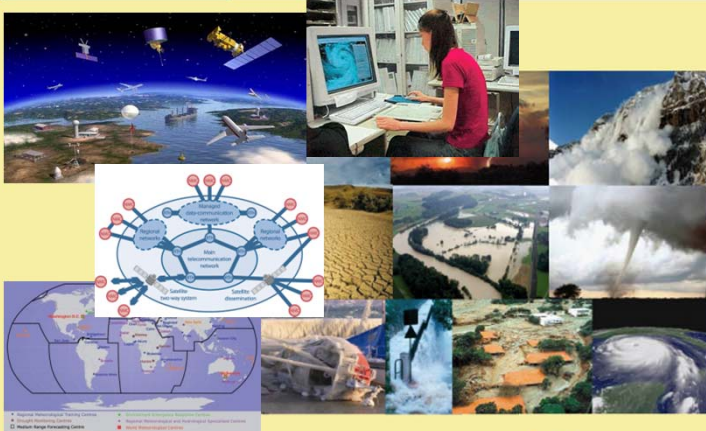
Strengthening national and regional institutional capacities for delivery of Meteorological, Hydrological, Marine and Climate Services to support





Early Warning Systems Require Coordination Across Many Levels and Agencies

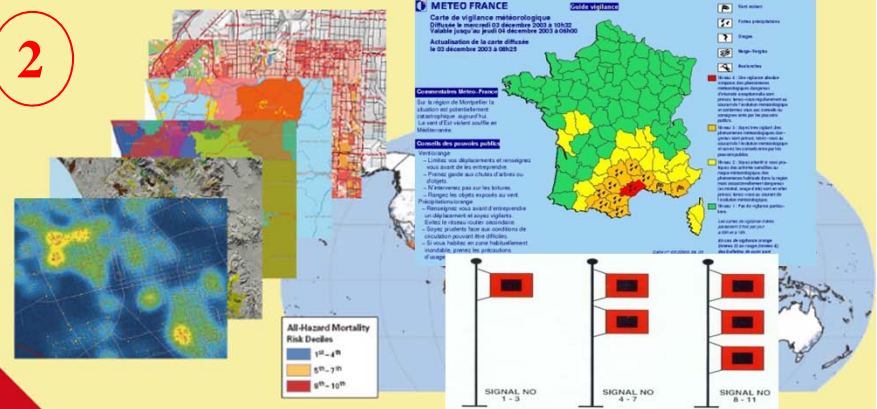
National to local disaster risk reduction plans, legislation and coordination mechanisms



Hazard Data and Forecasts

1

2



Risk Information



Coordination and Collaborations



Communication and Dissemination Mechanisms

3

4

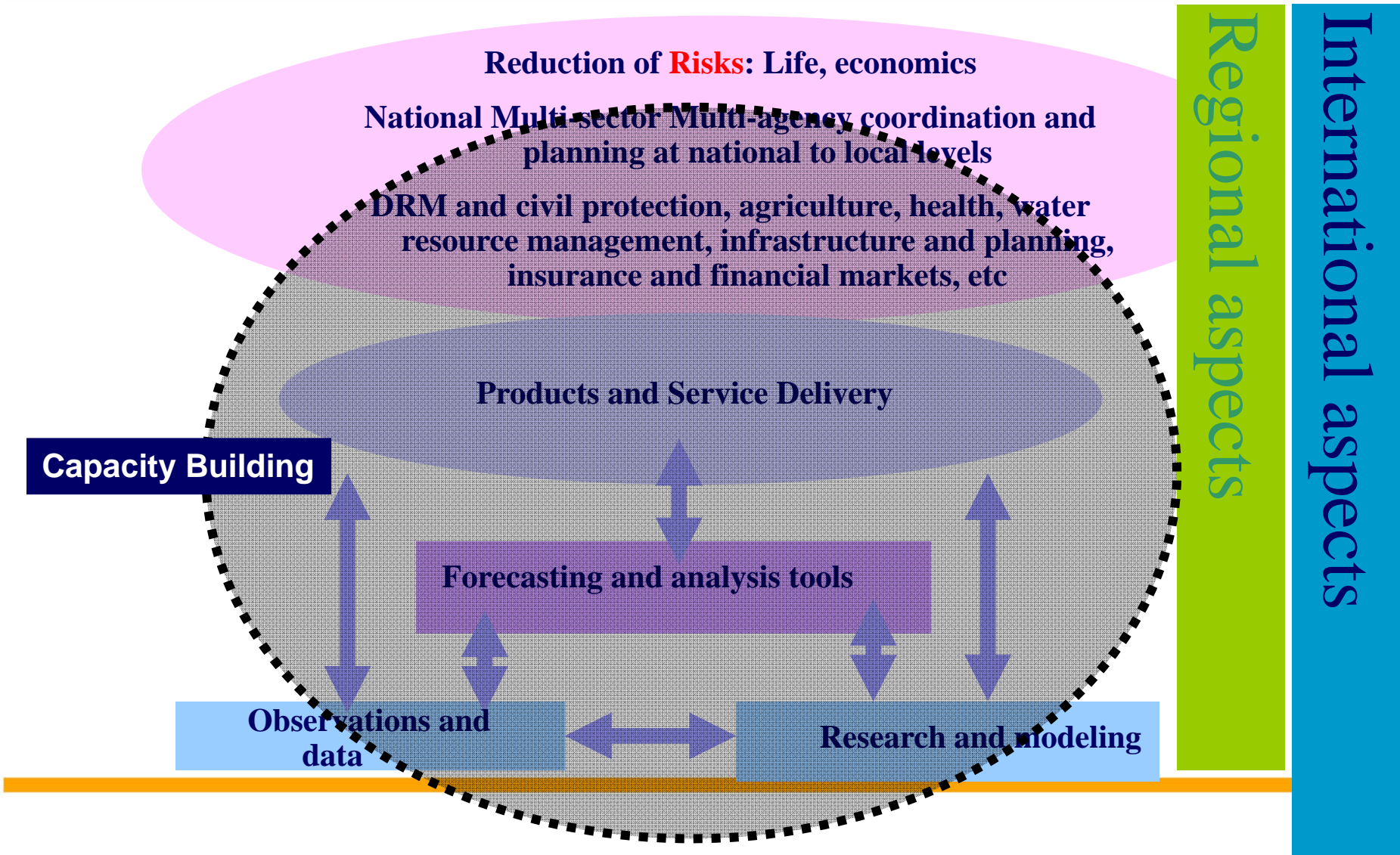


Preparedness and Early Response



Building national and regional capacities with service delivery focus

Bringing latest technologies and know how through international cooperation





How?

Long-term Capacity Development with phased project management (8 years):

- **2010-2011**: Development of programmatic and technical aspects and phase-I project
- **2011**:
 - Phase-I project implementation plan and project governance
 - Institutional mapping and partnerships (national and regional)
 - Resource mobilisation strategy and coordination with the donors
 - Regional mechanisms sharing progress, experiences, monitoring and evaluation
- **2011-2012**: Phase I Project (multi-component) to be Launched



Proposed approach – Two-Tier

First Tier – Development of National Road map for strengthening of Met/hydro/climate Services with in comprehensive DRR Framework

- Facilitate National Policy/Legislation dialogues and risk management workshops on needs for strengthening of meteorological, hydrological and climate services within a comprehensive Disaster Risk Management Framework, including:
 - hazard/Risk identification,
 - Multi-Hazard EWS,
 - Risk reduction through Multi-Sectoral Planning (e.g., land zoning and coastal zone management, infrastructure development, Agriculture and Tourist planning, etc), and
 - risk reduction/insurance.
- Goals:
 - Address institutional roles and responsibilities,
 - Institutional coordination arrangements
 - establishment of national focal points within the agencies.
 - Legislation and planning
 - Within the national long-term development agenda in DRR, to develop a road map with a phased capacity development plan (with concrete deliverables and timeline) for strengthening of national meteorological, hydrological and climate services within priorities of the countries/territories.
- **Frame other regional cooperation initiatives in the context of needs identified**



Proposed approach – Two-Tier

Second Tier – Operational Capacity Development in Early Warning Systems for Severe Weather and Flooding (1/3)

- Main thrusts:
 - Improve technical capacity for forecasting the priority hazards of the regions of the Caribbean, and Central America.
 - Improve Warning Services for the priority hazards.
 - Develop SOPs with DRM agencies and improving of contingency planning based on improved forecasts and warnings
 - Develop feedback mechanisms for improving products/services, processes and SOPs
- Priority Hazards:
 - Tropical Cyclones (damaging winds, storm surges, extreme accumulation of storm precipitation)
 - Heavy precipitation
 - Flash floods
 - Coastal Inundation (Storm Surge, Tsunami)



Proposed approach – Two-Tier

Second Tier – Operational Capacity Development in Early Warning Systems for Severe Weather and Flooding (2/3)

- Review of national/regional contingency plans (or development of new ones) based on workshops engaging National Met, National Hydro and National DRM agencies
 - Address requirements (products and services that support SOPs), to lead-time of 5 days, and reflect needs of decision making (lead-time dependent decisions)
- Develop a regional cooperation framework with clear regional and national components for supporting the monitoring and forecasting **of heavy precipitation and flash floods**
 - Alignment with the specifications in the contingency plans.
 - Establishment of principal regional forecast support centre(s): should be considered: (CIMH, Météo-France/Martinique, with strong collaboration of Hurricane Centre Miami)
 - Regional Website for assembling all regional hazard forecasting guidance (real-time obs (satellite, in-situ, radar, etc), NWP/EPS/LAM forecast products, etc.
 - Link to existing warning systems/centres and available forecasting products (coastal inundation, storm surges, damaging waves, tsunami)
 - Communication and dissemination with National centres
 - Focused project-related training and capacity development
 - Verification and evaluation of products, advisories and warnings



Proposed approach – Two-Tier

Second Tier – Operational Capacity Development in Early Warning Systems for Severe Weather and Flooding (3/3)

- Hands on training and capacity development at national level and development of SOPs with the disaster risk management agencies and the media
- Development of Common Alert Protocols
- Establishment of the feedback mechanisms for monitoring and evaluating and improvement at different levels (SOPs, products and services, etc) effectiveness of the products, dissemination and communication mechanisms
- **Other issues:**
 - Identify countries/territories that would participate in the initial Pilot
 - Proposal/implementation plan development and Project Management Framework
 - Expansion and sustainability plan (to other hazards and countries)



Other Critical Considerations

- Criteria for pilot country/territory selection based of multiple benefits and governments receptivity
- Identification and engagement of partners (national, regional, international) as relevant to be engaged in planning, implementation, and funding of each/both tiers
- Engage concrete experiences of the good practices in Multi-Hazard EWS from the region and globally identified and documents that have French West Indies, Cuba, Italy, the USA, Japan, Bangladesh, etc.
- Map relevant existing projects in the region and determine leveraging benefits such as:
 - Finish and Canadian QMS/SOP development
 - OAS/CDEMA/UNDP DRR Legislative/planning/governance initiative
 - CIMH/UNDO/CDEMA/Italian Cooperation project on risk identification for EWS purposes
 - CIMH/CCRIF project on indexing of floods for Flood insurance products
 - WIGOS/HYCOS, **etc etc**
- Develop proposal document for both tiers, project management framework and implementation planning
- These project proposals should be developed with consideration with funding opportunities and leveraging opportunities with other projects
- Need for an annual Regional platform to for monitoring, discussions, evaluations and improvements



Thank You

