

# Results of the WMO DRR Country-level Survey for the South-West Pacific (WMO Regional Association V)

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## Agenda

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- Impacts of hazards
  - Results of the WMO country-level DPM survey

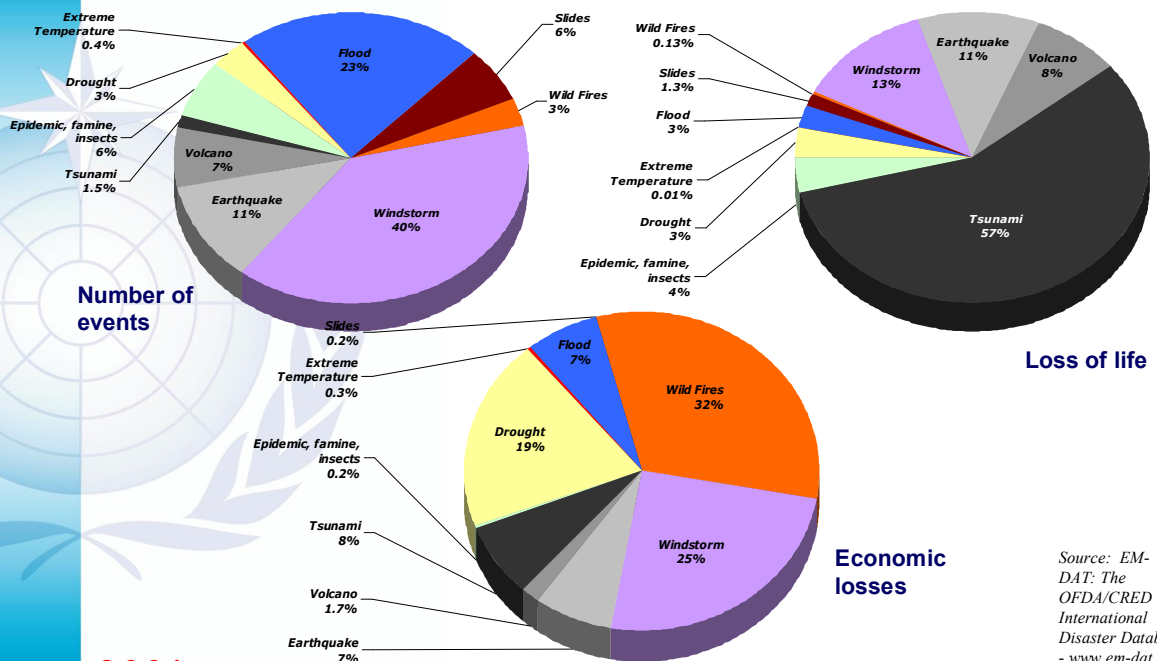
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# Impacts of Hazards in the South-West Pacific

## South-West Pacific Distribution of Disasters Caused by Natural Hazards and their Impacts (1980-2007)



**90% of events, 70% of casualties and 75% of economic losses are related to hydro-meteorological hazards.**

Source: EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium



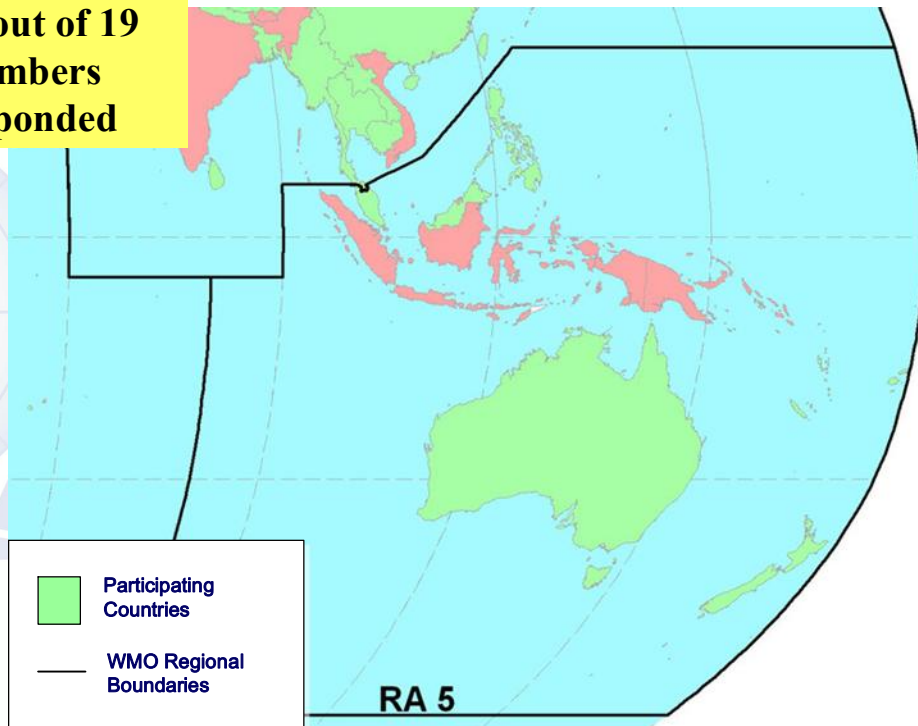
## Results of the WMO country-level DPM survey for the South-West Pacific (RA V)

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## Responses to the WMO Country-Level DRR Survey in the South-West Pacific

14 out of 19  
Members  
responded



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## Ranking of the hazards from the country-level survey

Hazard	Countries affected (out of 14)
Strong winds	14
Tropical cyclone	13
Flash flood	12
Thunderstorm or lightning	11
Coastal flooding	10
Drought	10
Storm surge	10
River flooding	9
Tsunami	9
Landslide or mudslide	8
Earthquakes	7
Forest or wild land fire	7
Marine hazards	7
Volcanic events	7
Hailstorm	5
Hazards to aviation	5
Smoke, Dust or Haze	5
Tornado	5
Airborne substances	4
Heat wave	4
Waterborne hazards	4
Dense fog	2
Avalanche	1
Desert locust swarm	1
Heavy snow	1
Cold wave	
Freezing rain	
Sandstorm	

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## DRR Related Legislation and Governance

- 77% (10 of 13 NMHSs) reported that DRR activities were coordinated at the National level
- 79% (11/14) reported that DRR activities are governed by legislation
- 43% (6/14) considered that the lack of clear legislation or policies regarding their role in DRR as a limiting factor

**National Meteorological and Hydrological Services' (NMHSs) contribution to DRR would significantly enhanced if they are integrated into their national DRR systems with clear roles and responsibilities**

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## National Structures/Mechanisms for DRR

- 79% (11/14) of NMHSs stated that their countries had a national committee for DRR involving multiple agencies
- 75% (9/12) stated that they were members of their national coordinating committee
- 46% (6/13) felt that their contributions to DRR were limited by their national disaster management structure
- 50% (7/14) stated that they were limited by lack of linkages with other DRR stakeholders

**NMHSs should seek membership in their countries national DRR committees and, where necessary, press for clear direction regarding their roles and responsibilities**

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## NMHS Collaboration with Partners

- 92% (12/13) of NMHSs stated that they coordinated with emergency management authorities for emergency planning and response
  - 86% (12/14) stated that coordination was at the national level
- 80% (8/10) participate in activities of international organizations and/or on the level of a WMO Region or regional economic grouping
- Few of the NMHSs participated in DRR activities of international agencies like:
  - National Red Cross and Red Crescent Societies (4/14)
  - United Nations Coordinator (5/11)
  - Office for the Coordination of Humanitarian Affairs (2/9)

**NMHSs should pursue strengthened partnerships with other organizations involved in DRR**

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## Observation and Monitoring Networks

- 71% (10/14) considered that a lack of hydrometeorological observation networks limited their ability to contribute to DRR
- 77% (10/13) cited maintenance of their observation networks is limited by adequate resources (e.g. financial, replacement parts, personnel, etc)
- 64% (7/11) stated that their ability to deliver critical products for DRR was limited by communications facilities

**Adequate hydrometeorological observation and telecommunications infrastructures are essential to effective early warning systems**

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## NMHS Forecasting and Warning Capacities

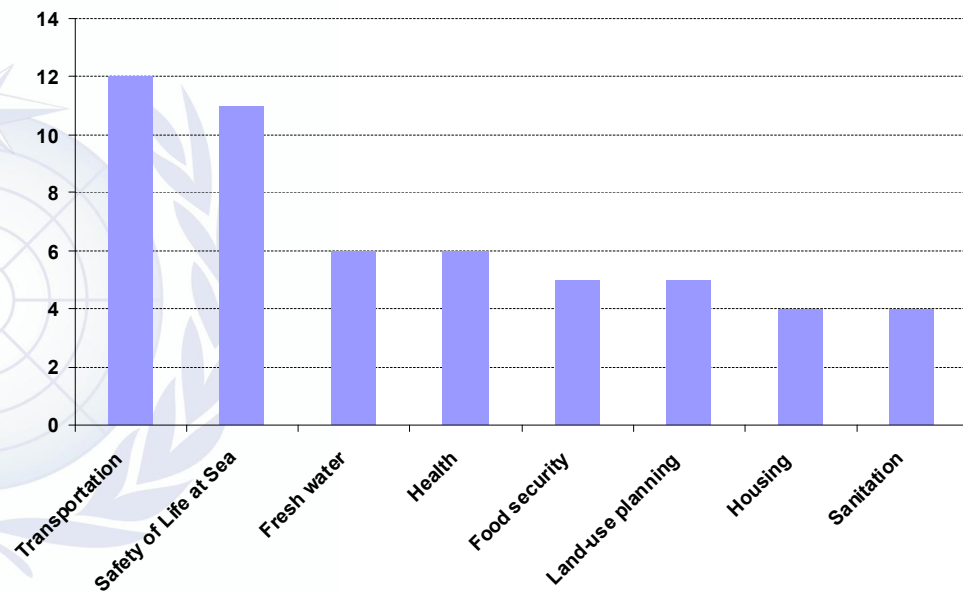
- 85% (11/13) stated that they had dedicated 24-hourly/year-round forecast service
- 93% (13/14) stated that they had a dedicated hazard warning programme that issued watches, alerts and warnings on a 24-hourly/year-round basis
- 75% (9/12) indicated that their ability to deliver critical products and services for DRR was limited by their professional forecasting and warning capacities
- 91% (10/11) indicated that the lack of application software limited their contributions to DRR

**Warnings could be significantly enhanced through strengthening of National Meteorological and Hydrological Services' capacities**

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## Contributions of NMHSs to key sectors relevant to Disaster Risk Management



**The contributions to DRR could be significantly enhanced through strengthening of National Meteorological and Hydrological Services' contributions to key sectors**

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## *Thank You*

**For more information please contact:**

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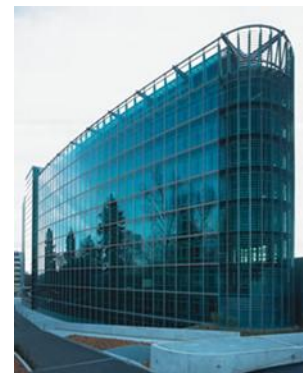
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<http://www.wmo.int/>

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# World Meteorological Organization

## **An Example Pilot Project on Early Warning Systems for Hydro-Meteorological Hazards**

### **“Central America”**

**Dieter C. Schiessl**

**Director, Weather and Disaster Risk Reduction Services Department  
and  
Director, Strategic Planning Office  
WMO**

**12 July 2008**

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## **Goal of EWS Demo Projects**

Strengthen operational EWS through optimal utilization of existing meteorological and hydrological tools and capacities for:

- Providing warnings, forecasts and services to improve emergency preparedness and response from national to community levels
- Supporting emergency response operations
- Developing feedback mechanisms for use during and after events to improve NMHS contribution to the overall EWS system

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# Project Management Framework

## 6 - Step Process

- (1) Build upon regional partnerships**
- (2) Define project concept**  
Deliverables and time lines/Concept-of-operations/  
Supporting infrastructure/ Planning pre- and post project  
actions/monitoring and evaluation/resource mobilization
- (3) Plan for sustainability of capacities**
- (4) Implement demonstration project (~ 1-2 years)**
- (5) Transit successful demo components to operations**
- (6) Project evaluation, broadening and roll-out**

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## Criteria for Pilot Countries

- Legal framework and coordination mechanisms for DRM exist
- Institutional capacity for operational processes at national to local levels exist
- NMHS has the capacity to support EWS
- NMHS is willing to engage in the project
- The country has reasonable operational emergency response mechanisms in place

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## **Possible DRR Project Conceptual Components (1)**

1. Identify weaknesses of the interfaces within the EWS (national to community and community back to national level)
2. Identify existing infrastructure (e.g., observation, forecasting, dissemination, etc.)
3. Identify key partners/users of the NMHS and determine and prioritize their requirements
4. Develop products and services (e.g., warning messages, specialized forecasts, advisory services) that fulfill the requirements

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## **Possible DRR Project Conceptual Components (2)**

5. Capacity building and training for forecasters and service users
6. Review, improve and ensure dissemination infrastructure and channels to users
7. Provide services to improve community emergency preparedness and response
8. Develop feedback mechanisms (for use during and after events)
9. Provide advice to and feedback from users to improve planning, preparedness, and response decision making
10. Project evaluation, sustainability aspects and expansion plan

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## Partners

### National Partners:

- NMHS
- Disaster Risk Management Agencies (National to Local), Civil Protection Agencies, Ministries, ..
- Red Cross Societies, others tbd

### Regional and International Partners:

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

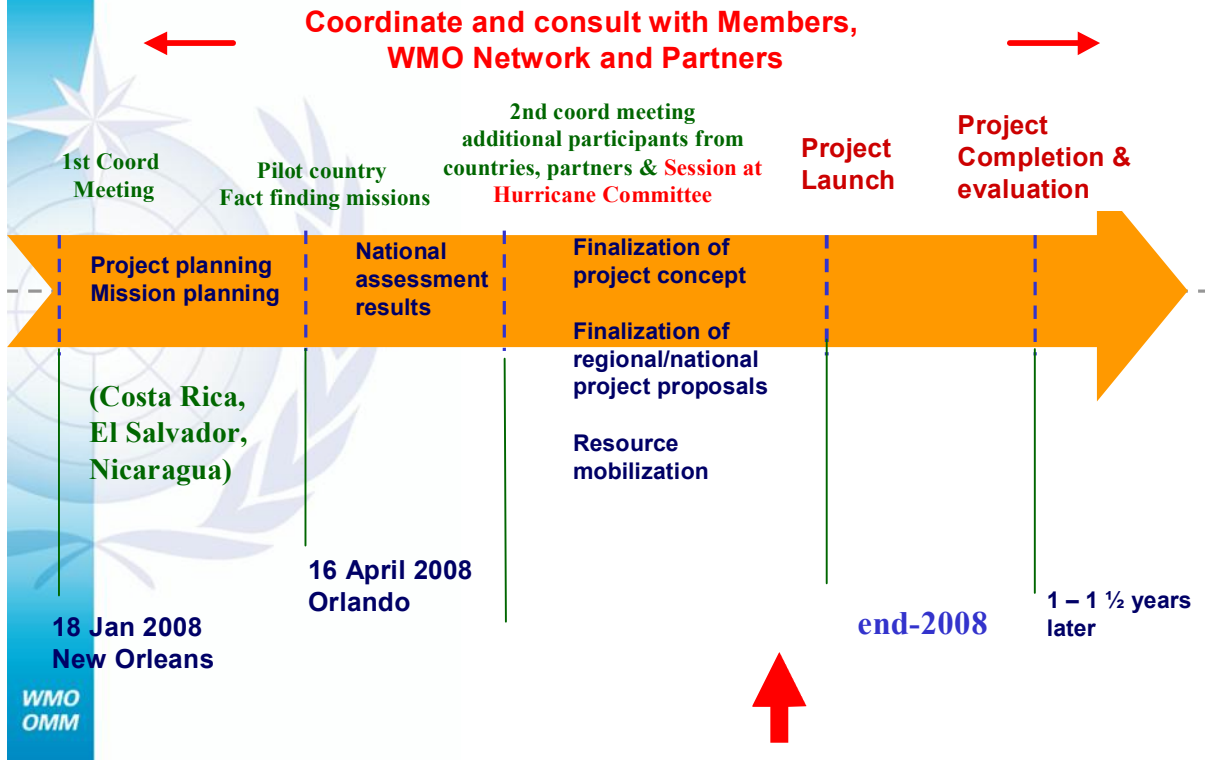
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## Central American Pilot Project on EWS

- Regional Planning and Advisory Group (RPAG) established in November 2007  
(Members: President of RA IV, Chairs of RA IV WG on DRR & Hydro, World Bank, IFRC, ISDR, NOAA, OCHA)
- Two planning meetings (January and March 2008)
- Coordination process
  - Hurricane Committee serves as regional mechanism to monitor progress, evaluate results and recommend future directions to RA IV
- Project proposals for 3 pilot countries under development (RPAG, consultant and WMO Secretariat)
  - Costa Rica, El Salvador and Nicaragua
- Fund raising underway

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# Central American Pilot Project on EWS Timeline and Milestones



*Thank You*

