Country Presentation for Tonga

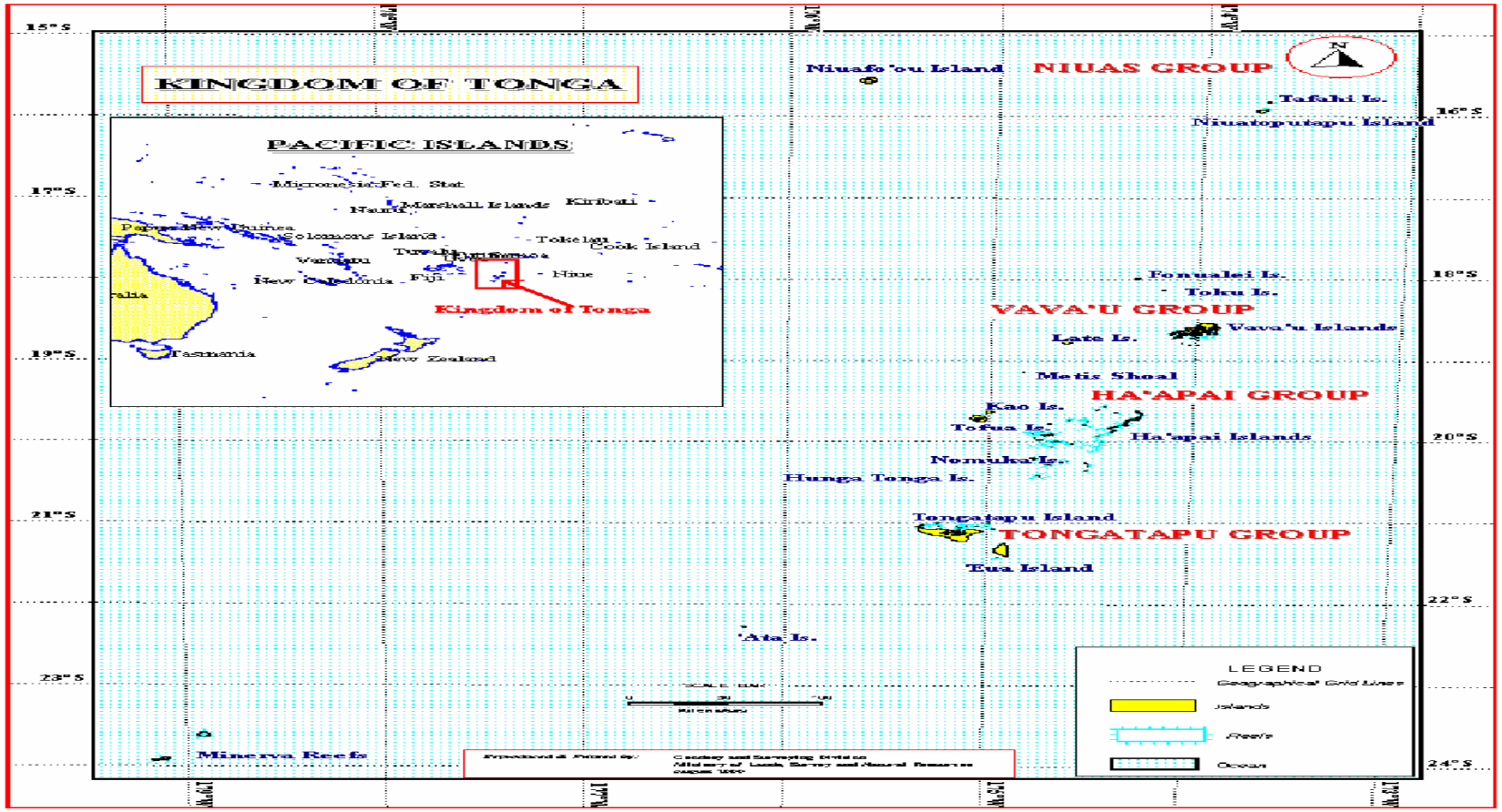
Workshop on “Disaster Risk Reduction in the Pacific” held in Kobe, Japan from 17th - 18th March, 2008.

By the National Emergency Management Office

Structure of Presentation

- Geographical info & statistics about Tonga
- Most Common Hazards to give you some ideas of what we are dealing with
- Brief look at our emergency management system-existing arrangements
- Comments on major issues
- Concluding remarks

Map of Tonga



Published by the Climate Change Enabling Activity Project, **Department of Environment,** P.O. Box 917, Nuku'alofa, **KINGDOM OF TONGA,** 2005.

Background

1. Geographical location

- Tonga lies between 15° and 23° 50′ South Latitude and 173° to 177° West Longitude
- Archipelago of 172 islands with total land area of 747 km² of which 36 are inhabited.
- Four clusters of islands with TBU & ‘Eua to the South, Ha’apai Group in the middle, Vava’u Group to the North and the Niuas to the far North.

Geographical location (Cont'd)

- Population 101,134 (2006 Census)
- Majority of islands are coral atoll with a few meters above sea level except for un-inhabited volcanic islands of Kao & Tofua and the Niuas to the far North.

2. Most Common Natural Hazards

- **Tropical Cyclone**

  Locate within Cyclone Belt. Average of 2 cyclone/yr. Most recent event with any impact was Cyclone Waka in December 2001 ($104m) & Cyclone Eseta March 2003 ($1.4m)

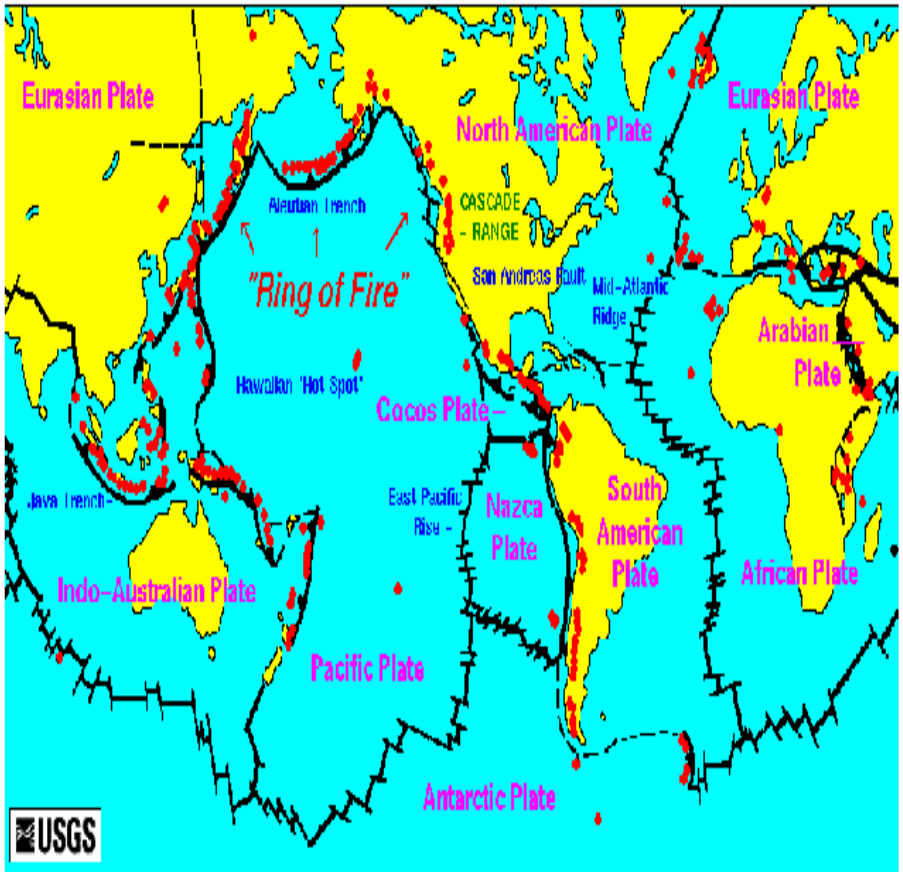
Common hazard (cont'd)

- **Storm Surge** from Cyclone Eseta, March 2003 (Nafanua harbor was closed for 2wks about $1.4m damage)
- **Drought** – 1997/98 El Nino – about $200,000 spend in shipping waters to outer islands in the Ha'apai Group.

Earthquake

- Locate within Ring of Fire and in sub-duction zone of the Australian and Pacific tectonic plates;
- Major Earthquakes – 27 June, 1977, a 7.2 mg

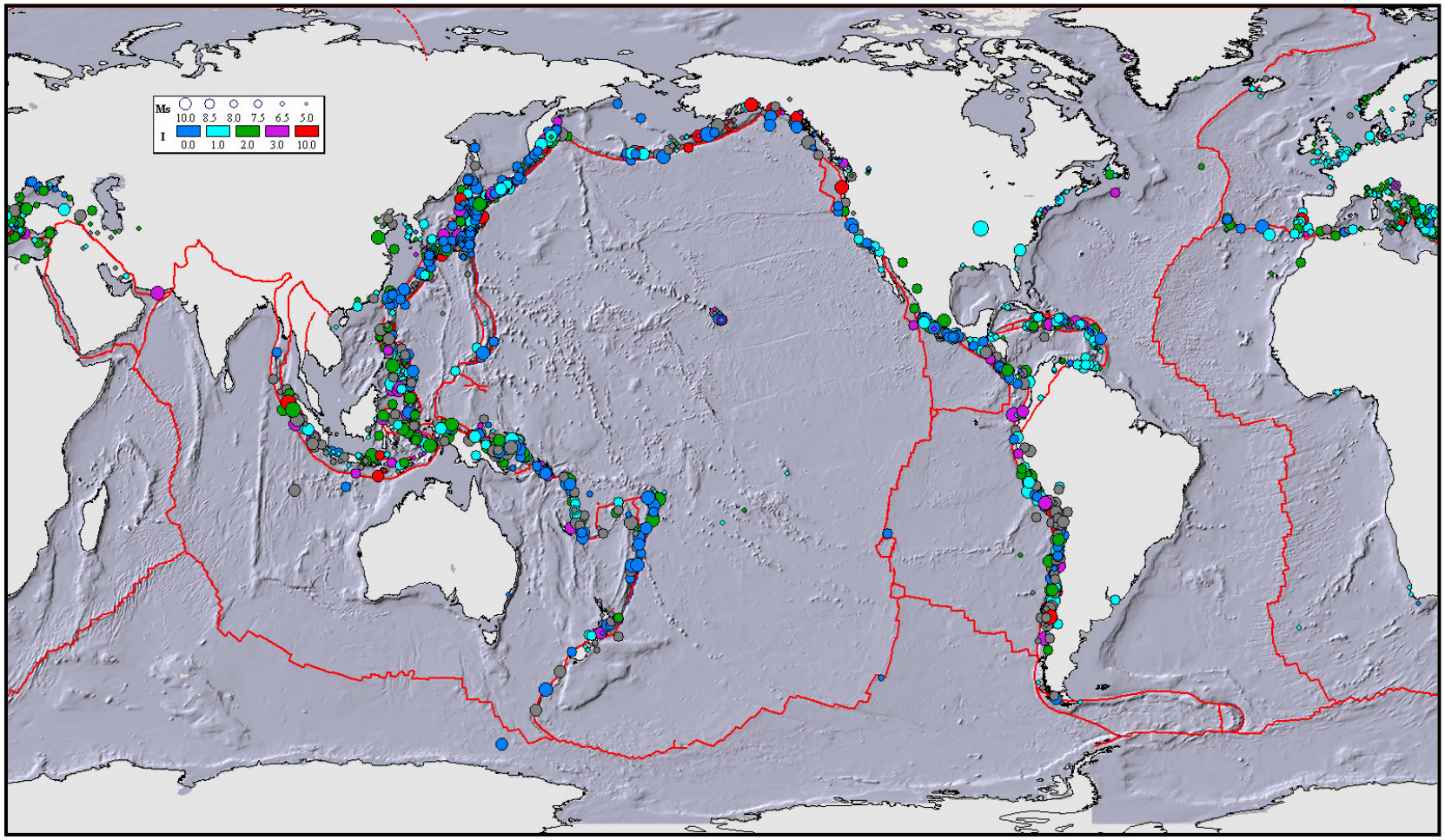
  4 May, 2006 a 7.8 mg



Tsunamis

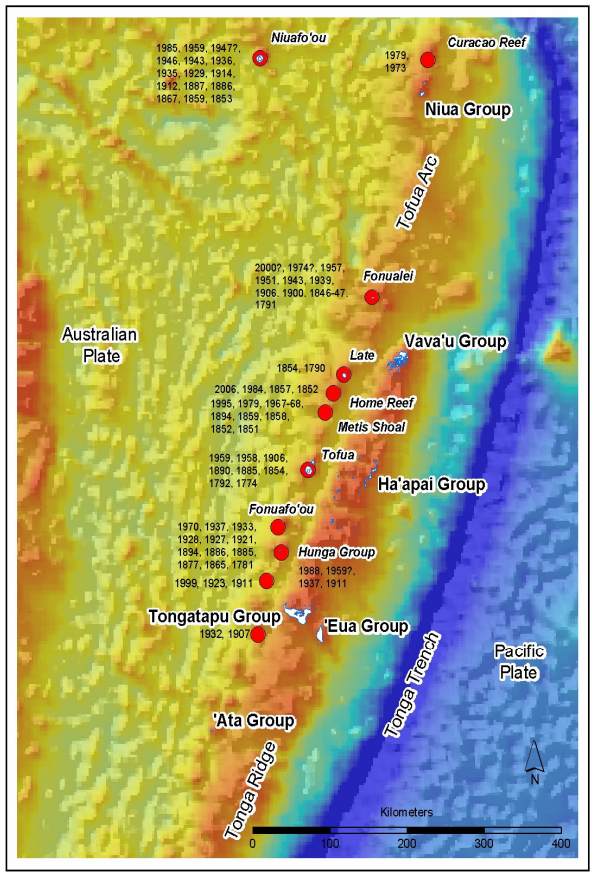
- Since 18thCentury, about 21 small tsunamis have been recorded (<1m wave)

Historical Tsunami Epicenters



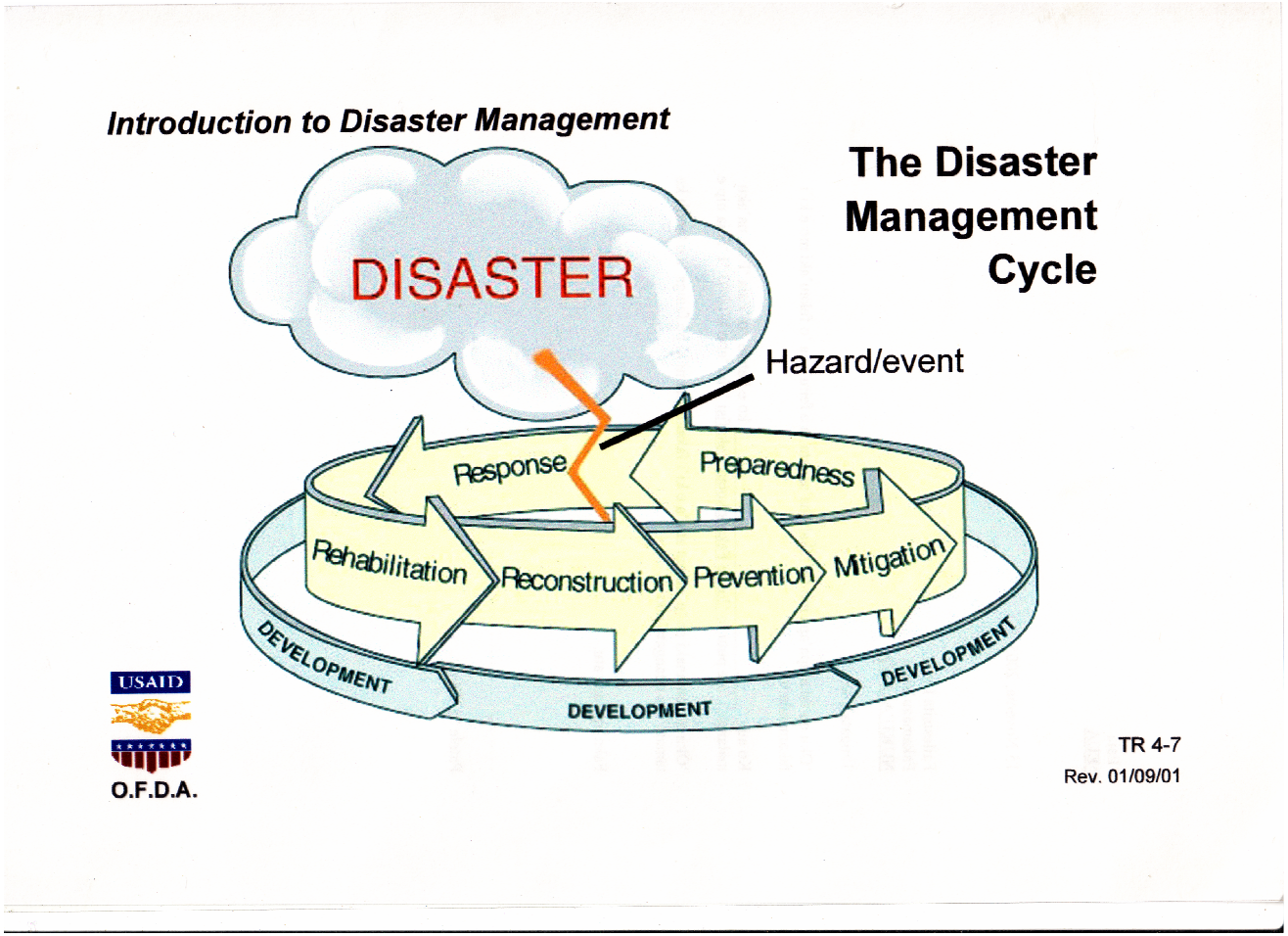
Volcanic eruption

- Volcanic Eruption – Very active chain of marine volcanoes runs North – South direction to the West of the Group
- Of the 36 inhabited, 2 are of volcanic origin- 1946 – Niuafoou erupted – whole island evacuated (about 1600 people)



Tornados at the central district: Sept, 2004 (Utulau, Haakame, Haalalo)

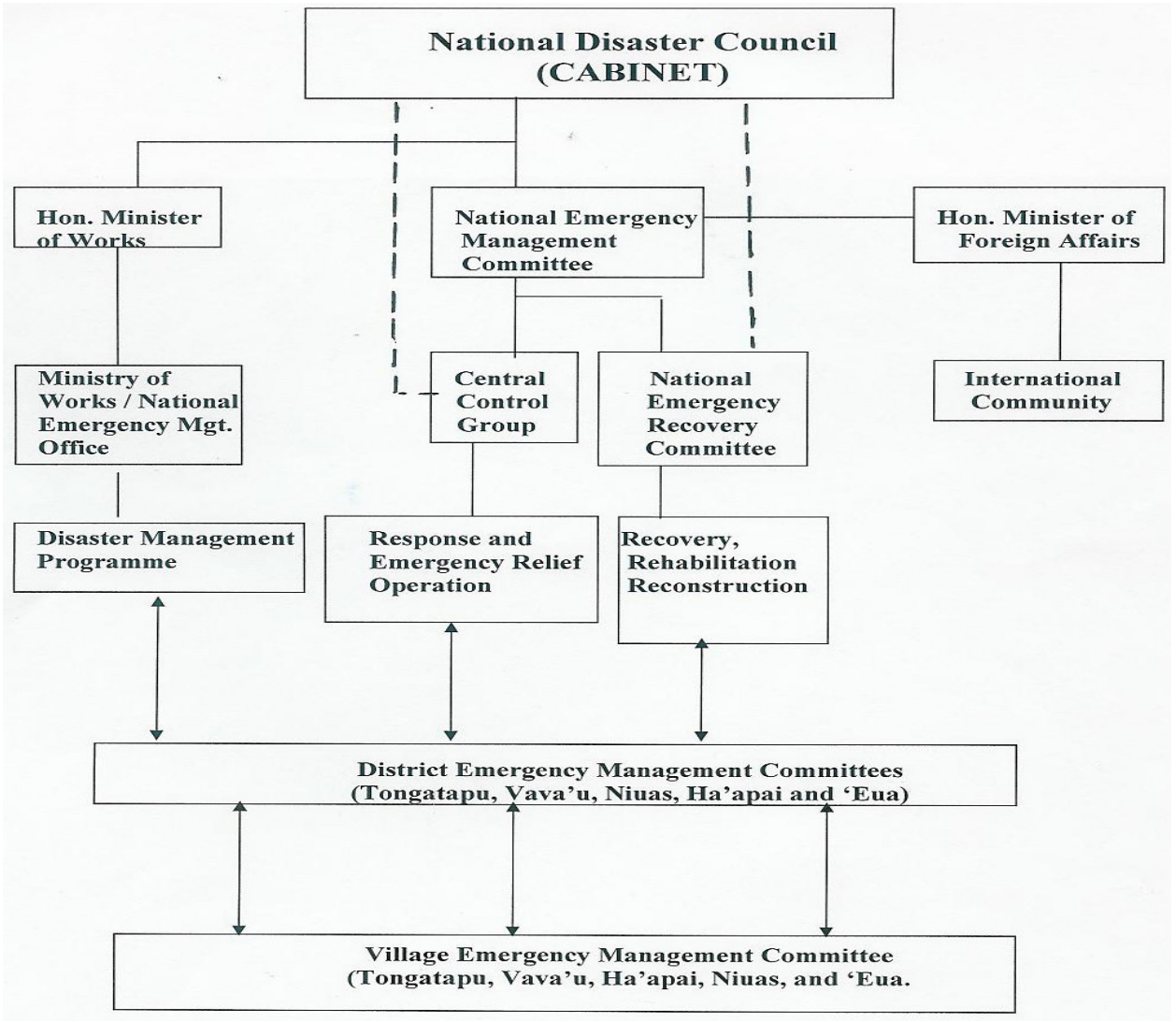
3. Disaster Management System in Tonga



3.1 Existing Mechanisms

- National Emergency Management Plan
- Some Operational Plans – Plane Crash under Police and Oil Spill under Marine
- Business continuity and Agency Response Plan
- Draft Emergency Management Act 2007
- Draft National Tsunami Response Plan
- District and village emergency committees established
- Building Code/Building Control Unit-Limitations

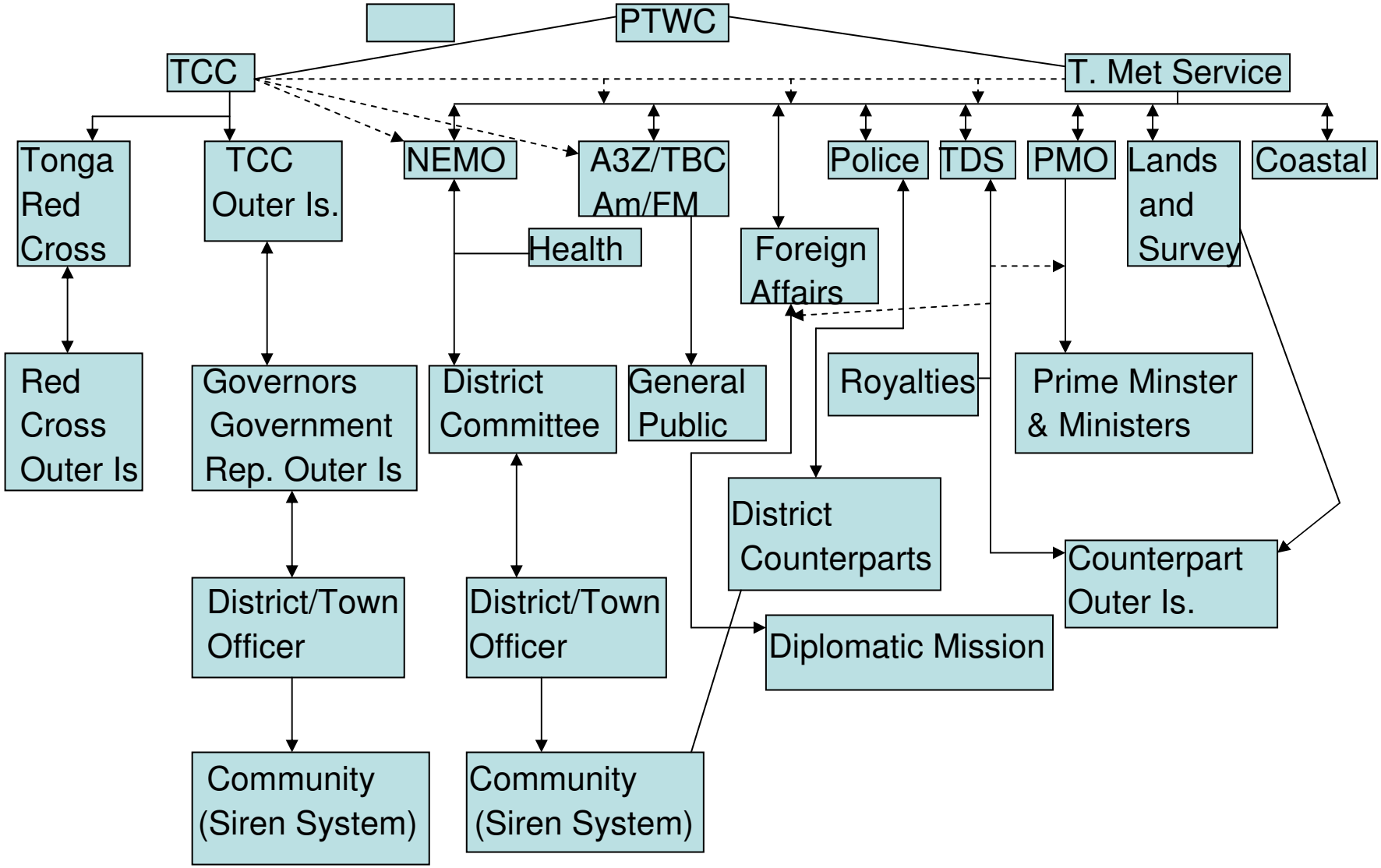
3.2 Organisational Structure



3.3 Early Warning System

- Tonga Meteorological Service as National Focal Point Meteorological and Tsunami Warning (24/7) back up by Tonga Communication Corporation-
- Channel of Communication for disseminating Tsunami warning information (and others)

CHANNEL OF COMMUNICATION



Communication Capability

- Public phone (landlines and Mob. Phone)
- Satellite phones (Iridium) NDMO, Us Peace corps, T.C.C, Tonga Red Cross
- EMWIN System-Receive only
- RANET project under implementation-after third World Conference on Early Warning, Bonn, Germany 2006 (reliability?)
- Siren System-Church Bells/Lali's

3.4 Damage Assessment System

- Preliminary Assessment – Arial Survey
- Initial Damage Assessment – District Emergency Management Committees/Affected Community using standardised assessment forms
- Detail Assessment National Team (technical multi-disciplinary)
- Information is channeled upwards to NDMO/CCG and Cabinet for decision making purposes-Damage Assessment Report with Recommendations for Appropriate course of action

3.5 Monitoring of Response/Recovery

- Work through the committee system (national, district, village)
- NDMO maintain contact with affected community (committee) for monitoring purposes and to keep Cabinet up-dated
- District and Town Officers are the official contact point at community level

4. Major Issues

- Government and Community complacency due to infrequent dramatic events
- Loss of “self-help” and increasing “hand-out” mentality
- Limited resources (funding, expertise, technologies) amidst competing priorities
- Govt. and People’s perception of risk-traditional, ad hoc and response-oriented approach pre-dominant (NODRR) until IDNDR years (NDMO)

Issues (cont'd)

- Unbalanced development between the national and district level in disaster management context
- Weak link between the Govt. and the community
- Limited Communication capability- scattered nature of island groups, unreliable technologies/equipments

(4th May earthquake experience!!!)

- Coordination of Government, NGO's and Private sector initiatives-not mandatory
- Legal Framework

5. Concluding Remarks

- Tonga is highly vulnerable to a range of natural disasters due to geographical location and geological constitution
- Disaster management system-still at its infancy (1980's) and needs strengthening
- Partnership between Government, NGO's and communities to be consolidated due to limited resources
- Some Plans and SOP's need to be drafted and existing ones tested through exercises
- More Public Awareness needed through training & workshops-Change perceptions, organise and prepare communities

Concluding Remarks (cont'd)

- Strong Government Leadership is needed
- Technical Assistance from regional and international community is needed- technologies, expertise, funding, etc.