



DISASTER COMMUNICATIONS IN VANUATU

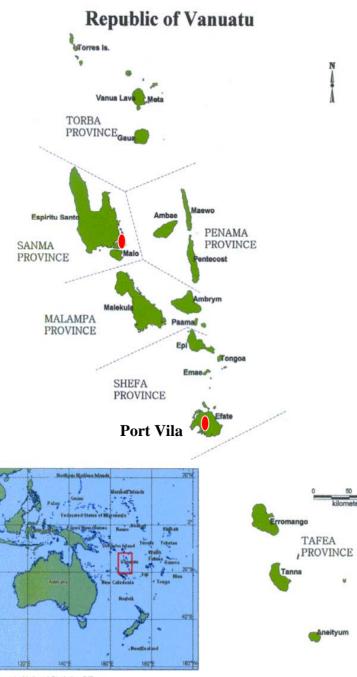
ITU/ESCAP Disaster Communications Workshop 12th - 15th December 2006 Bangkok, THAILAND

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CLIMATE OF VANUATU

Tropical Climate - warm & humid 2 seasons WET and DRY * Wet/Hot/Cyclone season: Nov - April •Air Temp: 24 - 31°C •Sea Temp: 28 °C •Avg. 2.3 cyclones per year •Avg. rainfall: 250mm / month * Drv/Cold season: May -October •Air Temp: 17 - 26 °C •Avg. rainfall: 130mm / month •Sea Temp: 22 °C •SE trade winds prevail > Avg. humidity all year around: 88% > Avg. annual precipitation: 2,300mm (90 inches)



GENERAL FACTS

Capital: Port Vila Population: 200,000+ Government System: Republic Geography:

- consists of 83 islands (40
- mountainous, 43 islets)
- Land area: 12,190 sq km

- most volcanic origin (10 inland - 4 active, 5 underwater volc.), rugged, mountainous, extensive tropical forest.

Official Languages: English, French and Bislama.

Currency: Vatu (VT)

Utilities/infrastructure - Monopoly (franchise agreement) of 1 telecommunications provider (+ISP) -TVL and 1 electricity company (Unelco)

-1 Radio Station (FM/AM/SW) with poor coverage throughout the nation - no roads around/on every islands interconnecting communities

- Electricity only on two towns but majority of the population lives on remote areas

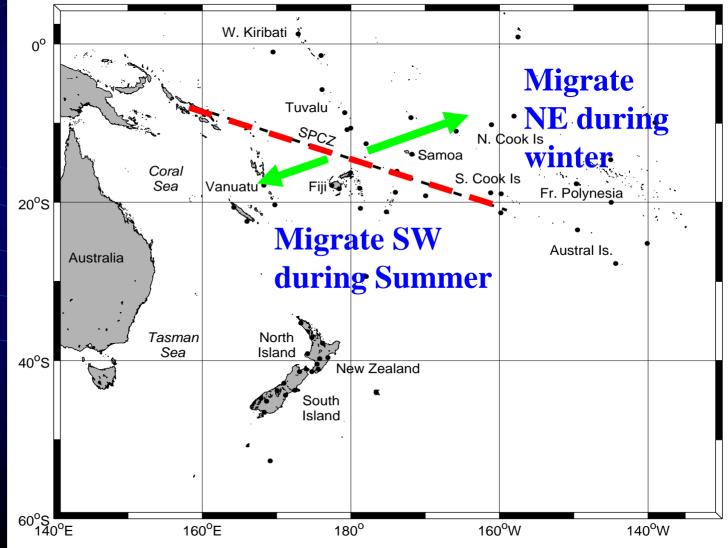
Two main contributing factors of disasters threats in Vanuatu

1. ITCZ & SPCZ

Directly & indirectly :

Pacific Ocean

- cyclones
- flooding
- droughts
- thunderstorms
- etc .

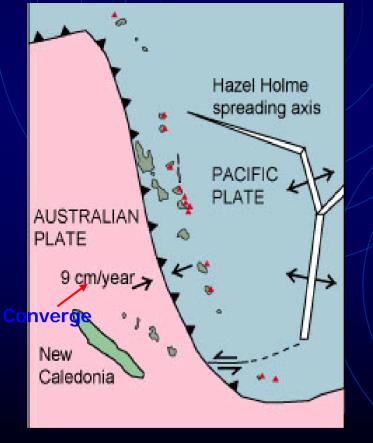


2. Subduction Zone

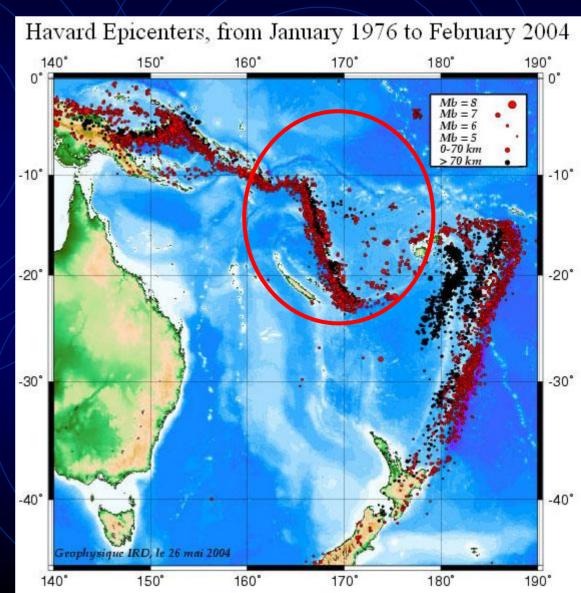
(located between Indo-Australian & Pacific plate)

- 10 inland volcanoes
- 5 submarine volcanoes

Pacific Ocean



(Source: Monzier et al. 1997)





New Zeplere

Disaster Threats in Vanuatu.



DISASTER THREATS IN VANUATU TROPICAL CYCLONES – avg. 2.3 cyclones/year







Communities







DISASTER THREATS IN VANUATU VOLCANOES



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Pacific Ocean





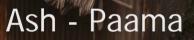


© IRD, M Monzier



DISASTER THREATS IN VANUATU

VOLCANIC ASH FALL



Sat 14: 0630 hrs:



HAILSTORM

MUD FLOW

Mud Flow - Tanna

Mud Flow - Tanna

DISASTER THREATS IN VANUATU

EARTHQUAKES

TSUNAMI

1999, Pentecost

LANDSLIDES







National Authorities involved in Disaster Management & Disaster Communications



VANUATU NATIONAL DISASTER MANAGEMENT SYSTEM

CABINET

MINISTRY OF INTERNAL AFFAIRS

NATIONAL DISASTER MANAGEMENT OFFICE

NATIONAL DISASTER COMMITTEE

NATIONAL EMERGENCY OPS CENTRE

NATIONAL DISASTER RECOVERY COMMITTEE

NATIONAL DISASTER MANAGEMENT ACT N0.31 OF 2000

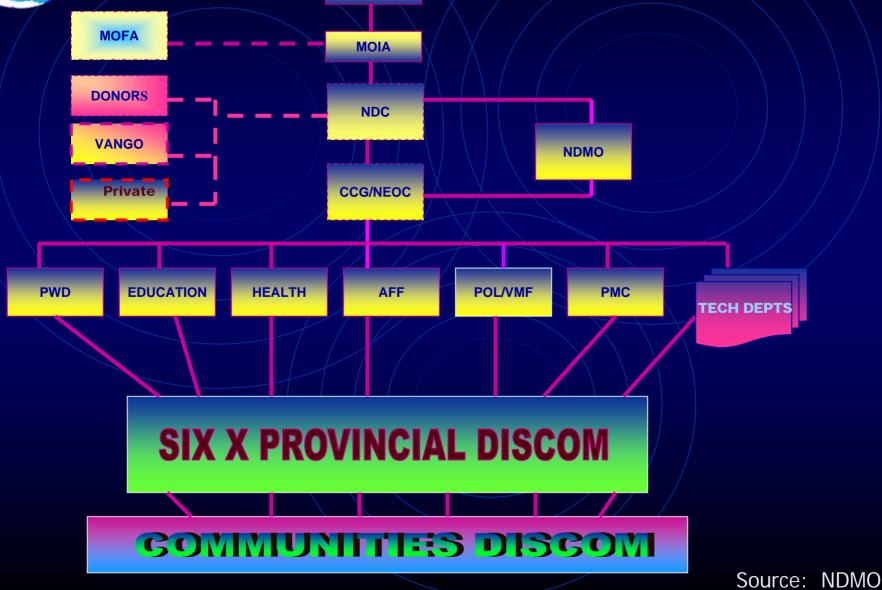
NATIONAL DISASTER MANAGEMENT PLAN

PROVINCIAL DISASTER PLAN

PROVINCIAL DISASTER COMMITTEE

Source: NDMO







[Currently no Disaster Communications Authorities is in place but the National Disaster Committee plays the role] TROPICAL CYCLONES / VOLCANOES / TSUNAMI

Technical Dept responsible: Vanuatu Meteorological Service & Seismology Section, Department of Geology & Mines

Communication Means:

Pacific Ocea

- Satellite imageries (NOAA, GOES-9, MT-SAT)

- real time monitoring through ARGOS for 1 active volcano (1992current)

- GTS communication system (to/from Meteorological community)

- HF Radio communication with remote Met Observation sites

- Emwin, WAFS, Ranet, HFemail (on its implementation stage)

Information dissemination for the nation via:

- Fax to Media, esp. Radio Vanuatu (for first hand info.) and advises NDMO on alerts for communities

- Fax/emails to respectvce Donor Agencies and Provincial Government

- through HFRadios to Ships around Vanuatu

- Email/fax to subscribers (particularly to those with internet/fax access – targeting mainly 2 towns with electricity access)

Relay information through telephones when a caller calls in too expensive to make calls
Hazard maps are produced (again translated in

3 languages) and distributed

[Currently NDMO is responsible in making sure nationwide is alerted for various Disaster with advice from Technical Departments] VOLCANIC HAZARD MAP FOR SANTA MARIA ISLAND CARTE DES MENACES VOLCANIQUES POUR L'ILE DE SANTA MARIA (VANUATU) by / par Claude ROBIN & Michel MONZIER (ORSTOM)



VOLCANIC HAZARD MAP FOR TANNA ISLAND CARTE DES MENACES VOLCANIQUES POUR L'ILE DE TANNA (VANUATU)

par Claudo ROBIN & Michel MONZIER (OR

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AMBRYM



GAUA

TANNA

Volcano hazard maps

AMBAE

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VOLCANIC HAZARD MAP FOR AMBRYM ISLAND /

CARTE DES MENACES VOLCANIQUES POUR L'ILE D'AMBRYM (VANUATU)

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VOLCANIC HAZARD MAP FOR AOBA ISLAND / CARTE DES RISQUES VOLCANIQUES POUR L'ILE D'AOBA (VANUATU)

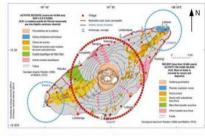
by / par M. MONZIER and C. ROBIN (ORSTOM

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ORSTOM, 1995



New Zealand

Work Progress so far

Work Progress so far

- Implementation of Pacific Tsunami Early Warning System currently (Dec 06) other sites are surveyed for installation of other sea level gauges
- Aust. Gov through EMA (Emergency Management Aust) to establish a pilot project on erecting HF Radios for certain remote communities as part of early warning
- Ranet + HFemail system currently on the first phase of installation (Dec 06) and be completed for 7 Met sites throughout the country from North to South targeting dissemination of warnings to communities with no coverage of Radio Vanuatu
- Vanuatu Government are currently working around removing TVL's franchise agreement for other ISPs to provide services that TVL currently doesn't offer. This will target mainly remote communities.



New Zealer

Challenges and areas of assistance in Disaster Management

Challenges

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Due to the geography of the country and the remoteness of communities, lack of telecommunication and electricity is a major problem for the communities at large. Only the two main towns have access to phones, mobiles, electricity, internet, emails ...etc in obtaining vital information. More emphasis should be put more into that need by the responsible bodies.

- Radio Vanuatu SW (short wave) coverage and reception is very poor. Again only the two main towns have good coverage.

- Language barrier between communities is also a challenge. With English, French & Bislama as official languages, the first-hand warnings received by the media from Technical Departments, must be translated to the 3 languages before relaying. Critical time in disseminating vital information is therefore lost.

- Volcanic activity monitoring systems are limited in relation to the number of active volcanoes in the country. Currently one working monitoring systems is in place but data retrieved is accessed by IRD (Noumea) interpreted then later relayed back to the Seismology Dept. Lack of technology and knowledge for local expertise.



Areas of Assistance

- Wider coverage of SW for Radio Vanuatu - the only means of communication for remote areas with outside world

 Establish/retrieve other volcanic monitoring systems on other active volcanoes and enhance its communication means.

 Introduction and establishment of new telecommunication systems

- training assistance for local experts

- last but not least, Vanuatu needs to extensively adopt its Disaster Risk Management Plan together with its Disaster Management Plan



New Zepland





Acknowledgements

I would like to thank the following people for enabling my data collection:

- NDMO Director, Mr Job Esau, for information regarding National Disaster Committee structure. The structures were being obtained from his previous presentation

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