

Communications for Disaster in the Pacific

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Pacific is Unique

- Not homogeneous but does identify to a point
- Lot of water, not much land, not many people, huge distances,
- Largely rural and remote
- Isolated from global influences
- Low level of infrastructure
- Robust but fragile

Not homogeneous

- Melanesian, Polynesian, Micronesian
- Atoll and volcanic origins
- Scale 5 million to 47
- Economy, “wealthy” to “impoverished”
- Similar extreme variations

Geography, demography and economy

- Low urban populations but subject to urban drift
- Small scattered villages
- Largely round the sea shores
- Very little infrastructure outside of towns
- High level of subsistence economies
- Income primarily primary, tourism and diaspora

Environment

- Low level of existing infrastructure
- Fragile but Robust

Broad definition of Disasters

- Because the Pacific is vulnerable to many
- Because the results and responses have many common elements
- Because of the need to integrate the responses into plans, structures, information systems, networks and hardware

Cyclones, earthquakes, tsunamis

- Relatively “predictable”

Political and Security

- Immature governance and governances in transition
- Fiji, Tonga, Solomon Islands, French Polynesia, Vanuatu. PNG
- Damage is significant Tonga direct equivalent to one years GDP,
- Secondary effects on investment and tourism particularly but also migration

“Imported hazards”

- Disease (measles, flues, STDs)
- Crop diseases, taro, bananas, pests
- NCDs
- Satellite failure, cable failure, cyber isolation

Environmental Disasters

- Sea level rise
- Resource depletion fish, timber,
- Rising salinity, wastes, water contamination
- Oil spills, nuclear contamination, ships sinking and planes falling

Hostile operating environment

- Humidity, temperature, water and salt
- Low maintenance mentality
- Spares and support thin to non existent
- Lack of other capacity backup and example
- Mains power unreliable, spikey, not 24 hour, brownouts or sheer absence and need for solar, batteries

Economic

- Changing global trade EU, ANZ, WTO
- Sugar textiles, foot ware
- Mine closures
- High costs of transport and
- Small scale economies and businesses

Role of Communications

- Isolation requires communications
- Small, scattered and remote communities call for different modes and deep penetration
- Communications must be mainstream,, built in and live
- Communications must be robust, multi functional and flexible
- The last mile is largely non existant

Embedding in traditional infrastructure and process

- Spread costs,
- Ensure it works all the time including operator familiarity and public awareness
- Culturally and politically relevant
- HF Amateur Radio, FM and AM broadcasting, VHF networks
- Cell phone SMS, Public PA systems
- VSAT and LAN/IP
- 24/7

Pacific Plan- Digital Strategy

- Access, affordability and human capacity to install, operate and maintain
- Broadcasting capacity
- Satellite, wireless, IP
- Regional response to get economies and synergies
- PITA operators- PITA pooling of capacity
- PINA broadcasters

Country Role

- Because it will be more likely to be sustained and
- Solutions need to be country specific
- The countries are part of the “problem”
- Need for telecoms sector reform- satellite access, new gateways, new technologies and competing (means alternative) suppliers and
- Regulators insisting on coverage, robustness in network design, contingency plans
- Integration with national plans, early warning systems, disaster communications and response systems (government, NGO and international)
- Tampere Convention -only 2 states have signed!!
- Do not forget the territories

Models

- Plenty of “bad models”
- USP Net, Pfnet, Healthnet and Pestnet
- Pilots
- The soft side is more important than the hardware.
- Vanuatu National Plan and
- Vanuatu National Action Plan for Disaster Risk Reduction and Disaster Management

Summary

- Integrated and build on existing infrastructure (including institutions)
- Holistic and robust
- Exploit regional synergies but be Country specific and consistent
- Emphasis on people not the technology

Thank you!