

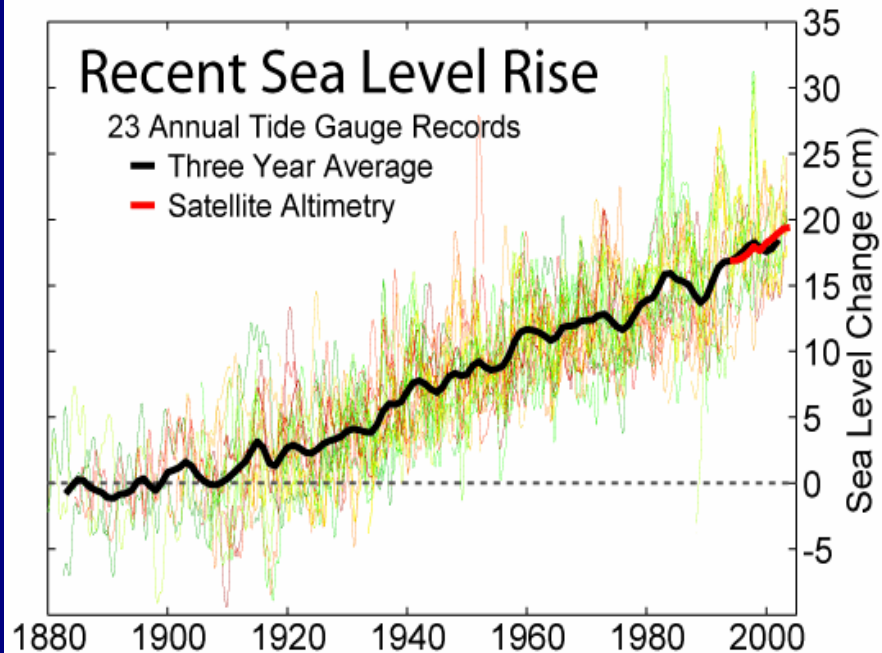
Community Based Disaster Risk Management (CBDRM)– Lessons Learnt and Challenges Ahead in Maldives

Aslam Shakir (Maldives),

Disaster, Environment and Development Researcher,
Centre for Impact Assessment
Research and Training (CIART)
Department of Geography, University of Otago,
P.O Box 56, Dunedin, New Zealand
aslam.shakir@gmail.com

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Global warming & Sea-level rise



- 1 to 3 mm/yr since 1900,
- 3 mm/yr since 1992 (satellite altimetry from TOPEX/Poseidon)
- predicted to cause significant rises in sea level over the course of the twenty-first century

(Source: Climate Change 2001: Working Group I: The Scientific Basis,
http://www.grida.no/climate/ipcc_tar/wg1/425.htm)

Disasters, Risks & Vulnerability

- Heavy Rain – Monsoon etc
- Tidal surges
- Flooding (1987)
- Tsunami (Boxing day 2004)

Tsunami impacts

- Huge –ve impacts on the region (coastal areas)
- Maldives: Most severely affected – throughout the country

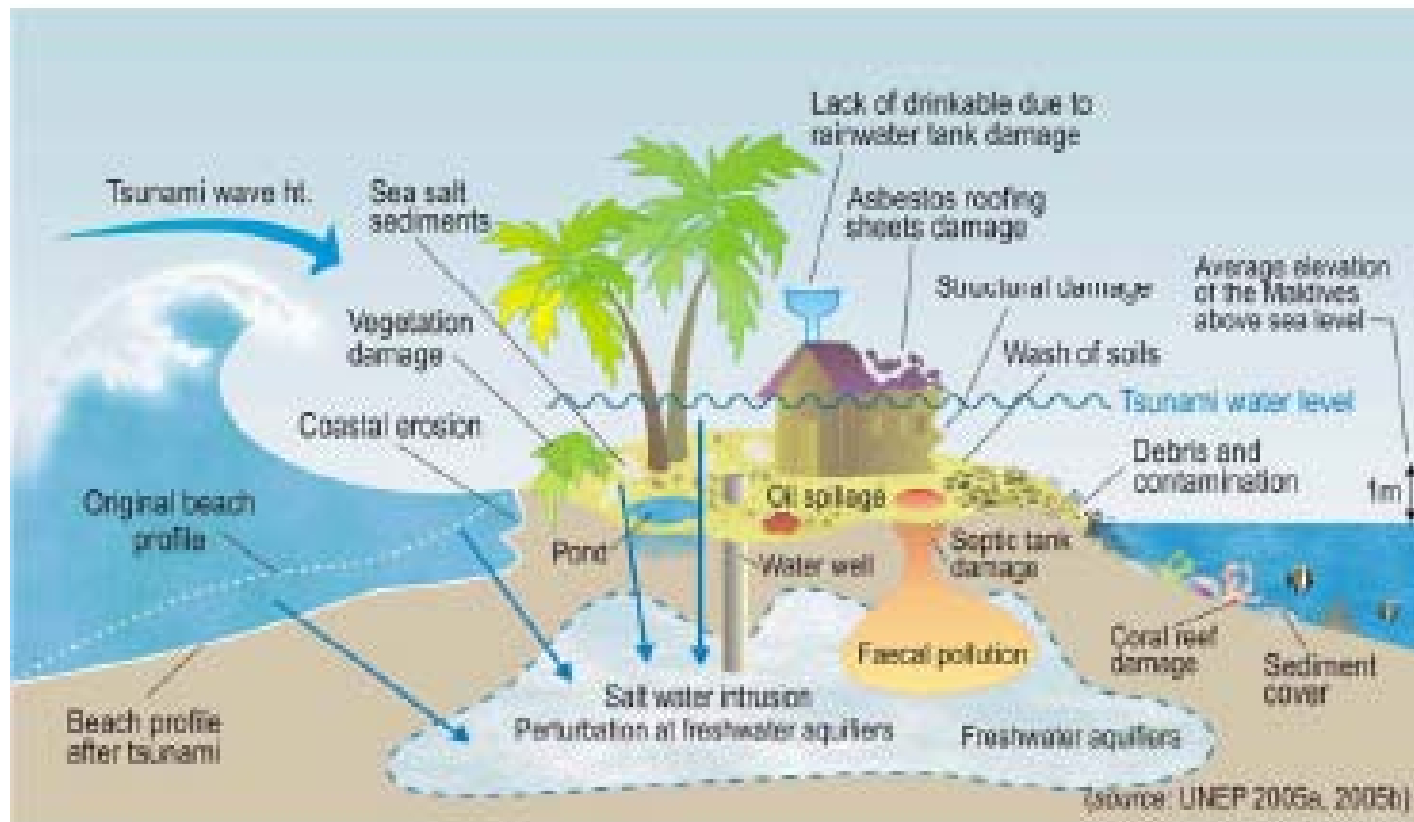


Figure 4. 4 Tsunami inflicted environmental damages on the Maldives

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Disaster Impacts

- Loss of life & and Livelihood
- Loss & damage to basic necessities
 - Food water
 - Medical/medicines
 - Cloth
 - Shelter
- Damage to Information, communication & transportation systems
- Damage to the development infrastructure

Recovery

- Community-level Unplanned, Ad hoc and reactionary survival and recovery
- CBDRM Does not exist
- Local business & NGOs
- Govt & international community
- Later formalised
- Community not involved!

Should Maldives Develop CBDRM

- Yes ...2 reasons
- Geographic Isolation
- Self Sufficiency

What kind of CBDRM

- What can communities learn from
 - Tsunami
 - Other disasters
- What plans & strategies can communities develop

Specific Issues for Maldives

- Geographic & environmental
 - dispersion & isolation
 - Communication and transport (ICT)
 - Uneven population density
- Physical nature – land and topography
 - a coastal country with no hinterland or mountains
 - Highest point is 3.5m above sea-level
 - Weak and porous soil
 - Ground water contamination and crop damage
 - Low bearing capacity, poor foundation and infrastructure

Coastal & Low-lying Islands



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findings



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Safe Islands

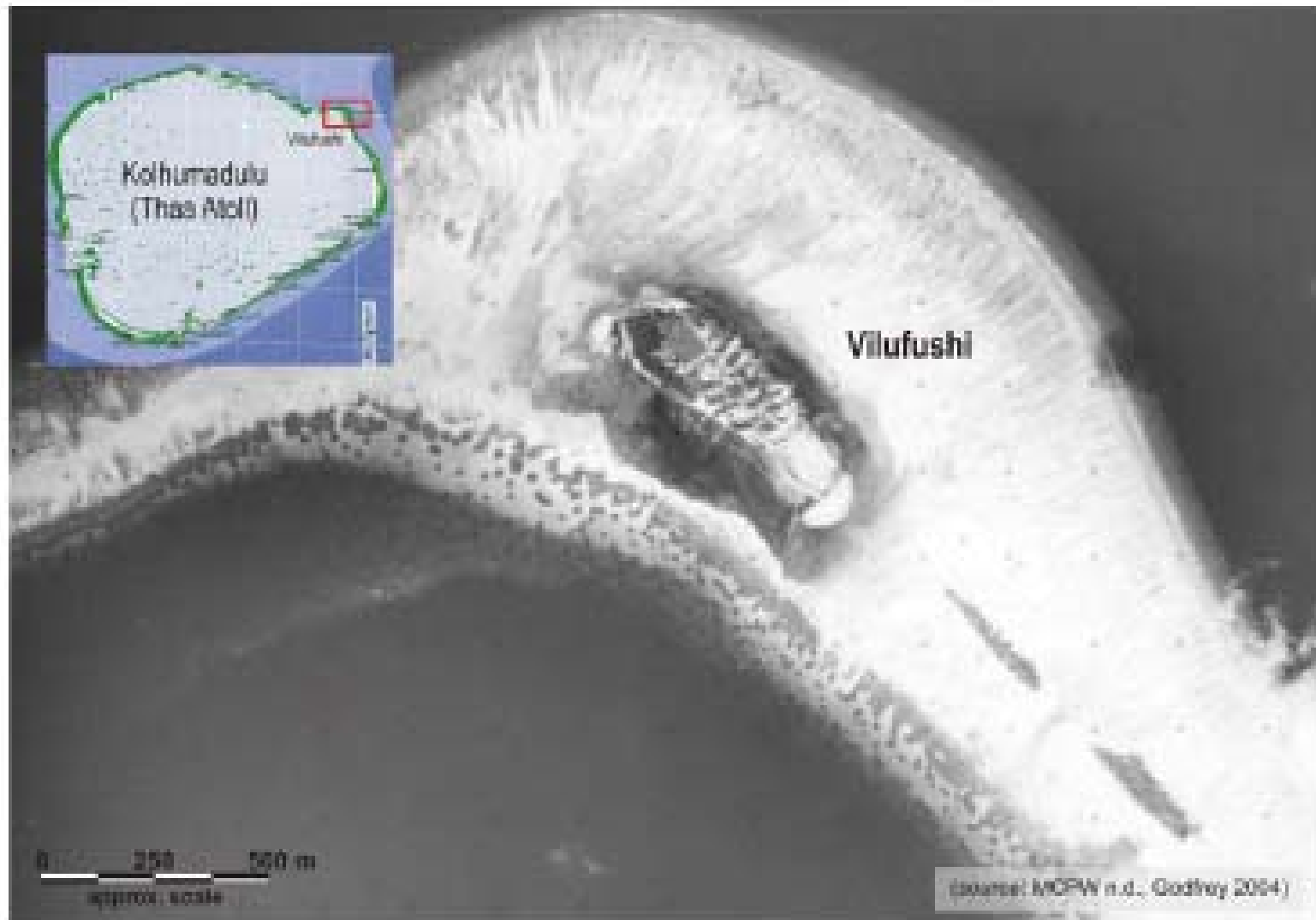
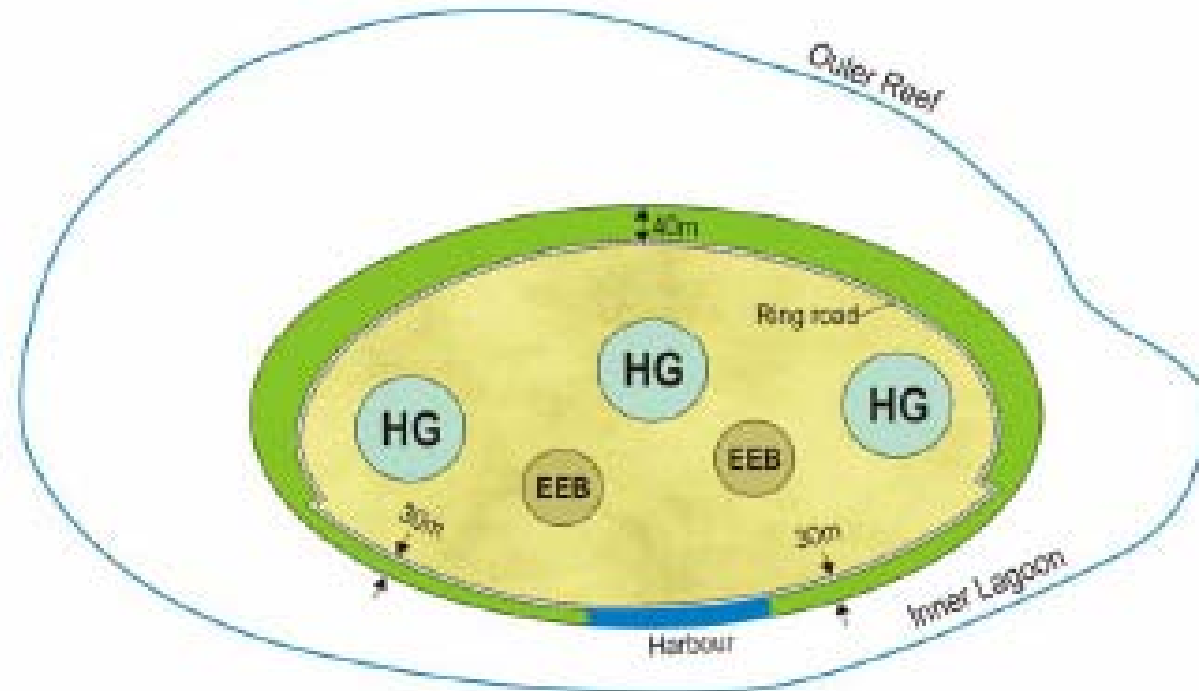


Figure 5. 5 An island selected for "Safe" Development

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Safe Islands



NOT TO SCALE

(source: MPND 2005a)

Figure 5. 3 A Concept plan for the 'Safe Islands'

findings

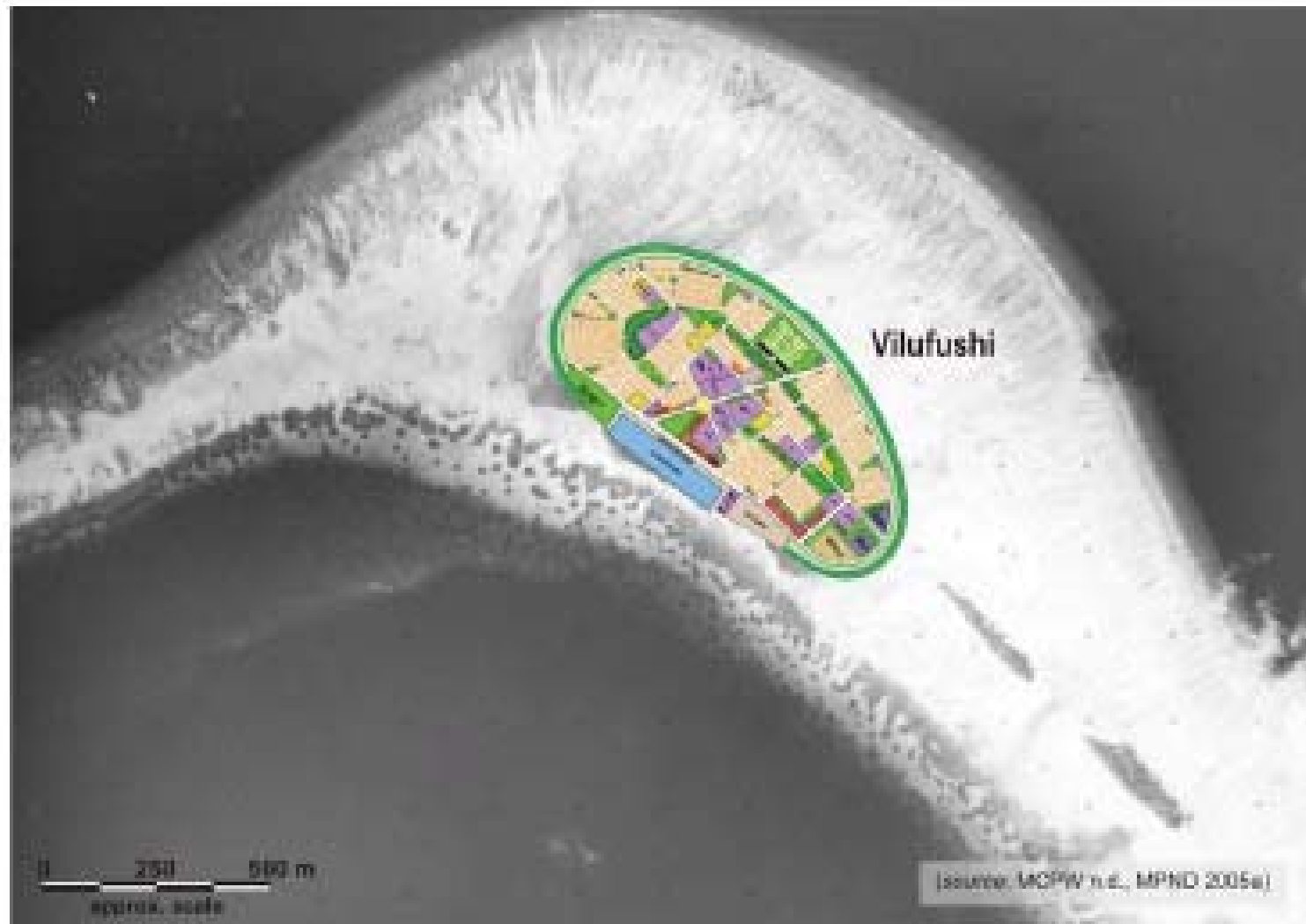


Figure 5.6 A proposed land use plan for a 'Safe Island', including the lagoon and the reef
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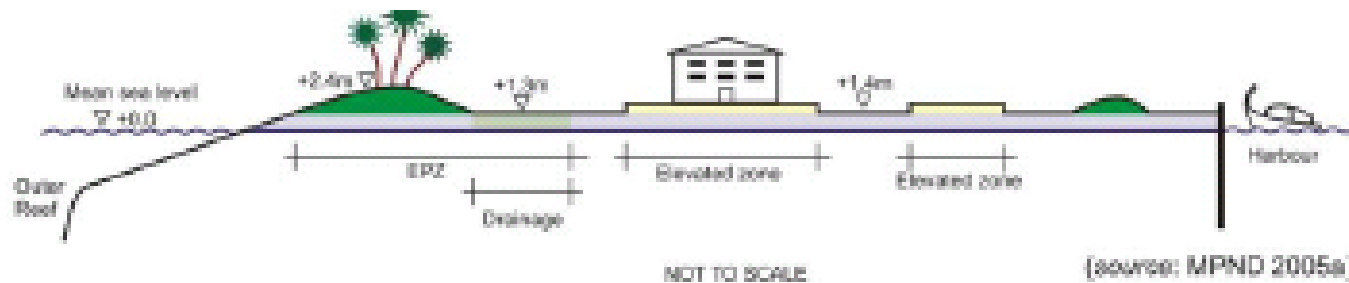


Figure 5. 7 A cross-section of a "Safe-Island"

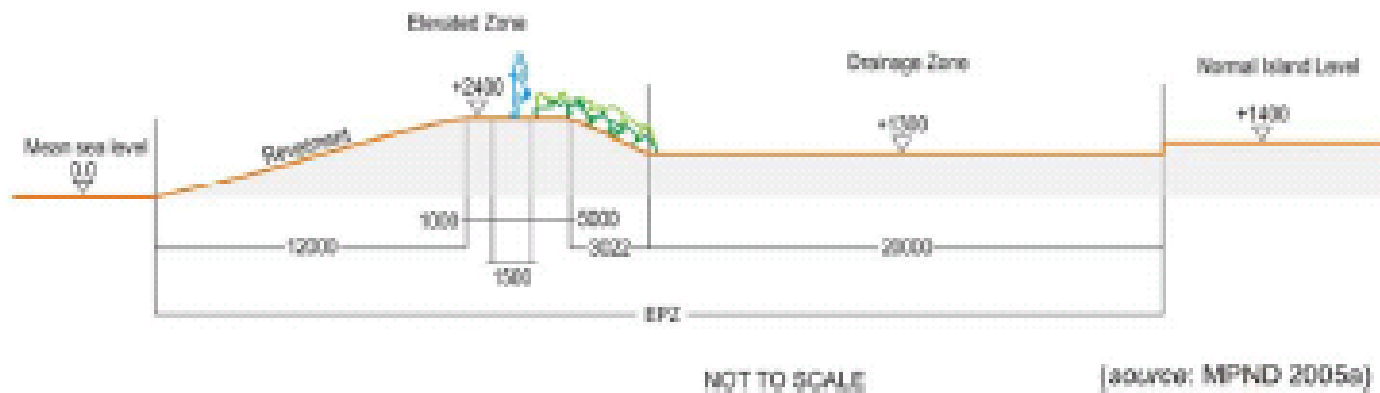


Figure 5. 8 Cross-section of Environmental Protection Zone (EPZ) of a "Safe Island"

Reconstruction

- **Many problems**
- **Community not involved**
- **EIA for Vilufushi Island Reclamation**
 - **Only informed but Community not involved**
 - **Social economic issues not addressed**
- **Safety and Survival is an issue**

International & Regional Issues

- Problems with many interventional & regional solutions
- Tsunami (coastal) reconstruction guidelines – Cairo principles
- Pacific and Caribbean
- Regional information share
- Regional assistance
- Life saving, food delivery & airlift

Recommendations

- **Integration of DRRM & Development planning**
- **Holistic approach is need**
- **Community & Other Stakeholders must be involved**
- **Appropriate tools & mechanisms required**
- **Post-disaster Strategic Environmental Assessment (SEA) is required**



Thank You.

- **Questions and Comments Pls.**