

Resilience and Disaster Management in the Indian Ocean: Putting the "Bounce" into Managing Disasters in the Coastal Zone



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USAID
FROM THE AMERICAN PEOPLE

ASIA



TETRA TECH



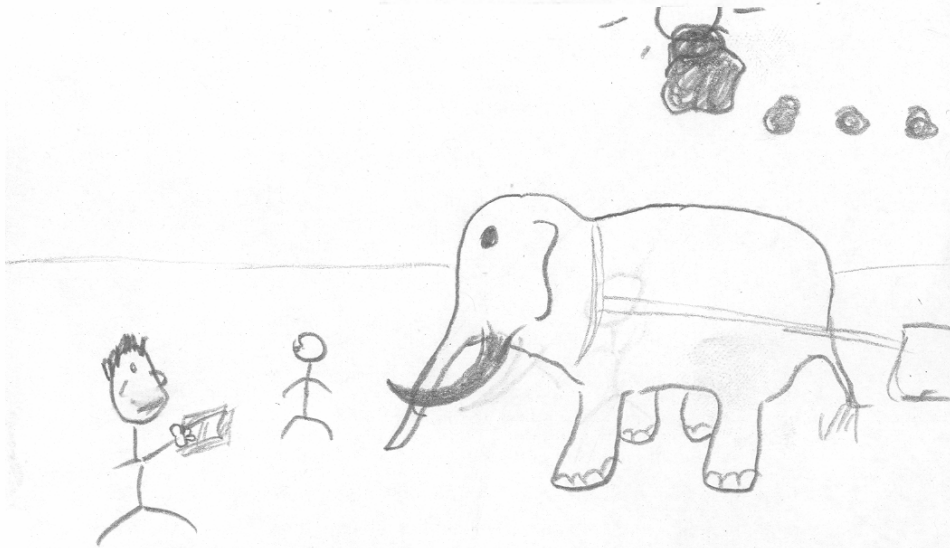
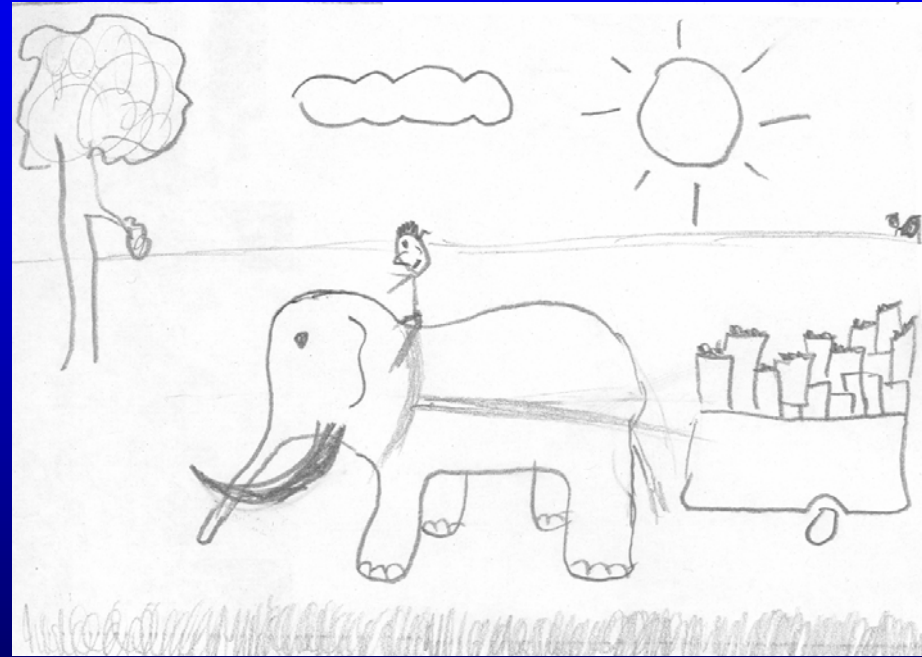
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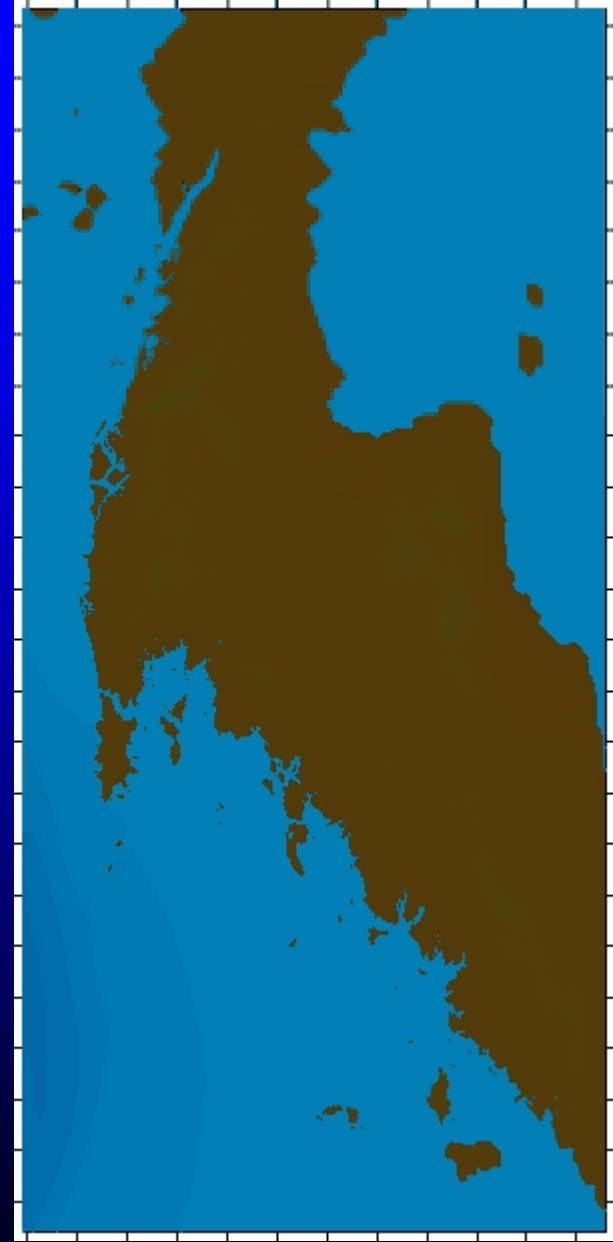
Resilience is...

- Derived from its Latin roots 'to jump or leap back', is the ability to **recover from or adjust** easily to misfortune or change
- Capacity of a system to **absorb disturbance and reorganize while undergoing change** so as to still retain essentially the same function, structure, and feedbacks – and therefore the same identity
(www.resalliance.org)

Absorb shock – Bounce back – Adapt



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A New Paradigm

*Livelihoods &
socio-economy*

Governance

**Community
Development**

*Land Use and
Structures*

*Emergency
Response*

Resilience

**Disaster
Management**

**Environmental
Management**

Recovery

*Warning &
Evacuation*

Risk Knowledge

*Coastal
Management*



Governance



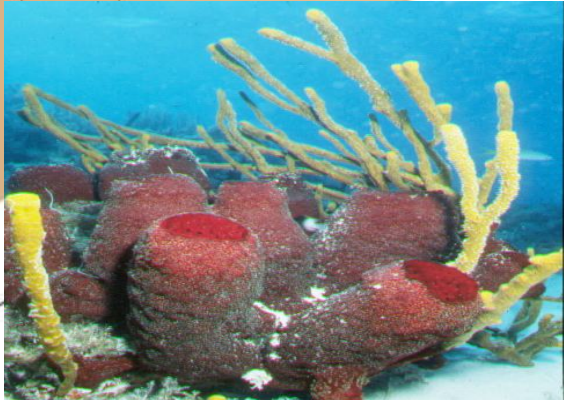
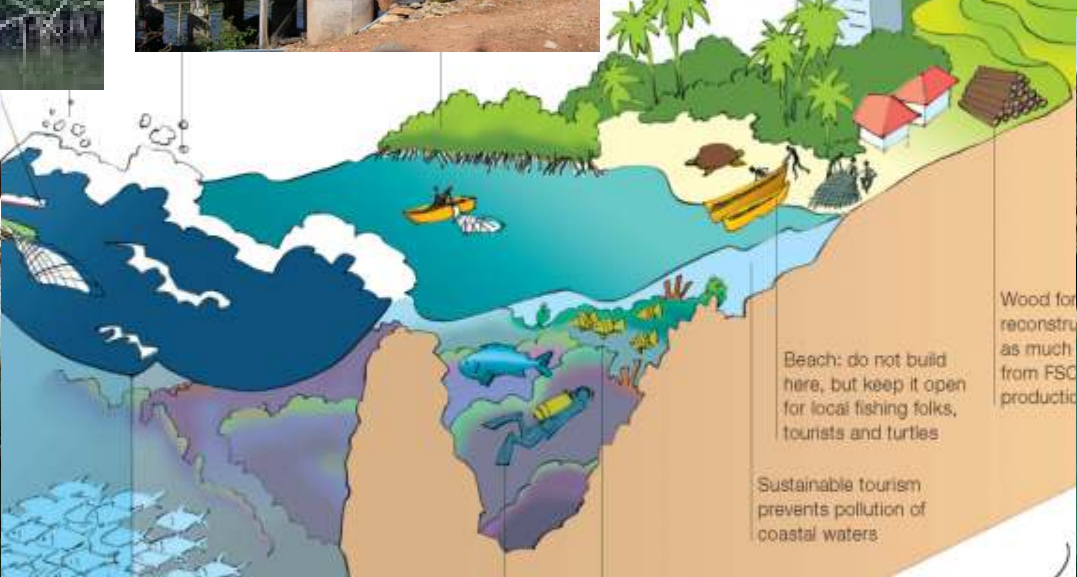
Livelihoods & Socio-economy



Coastal Zone Managed for Resilience

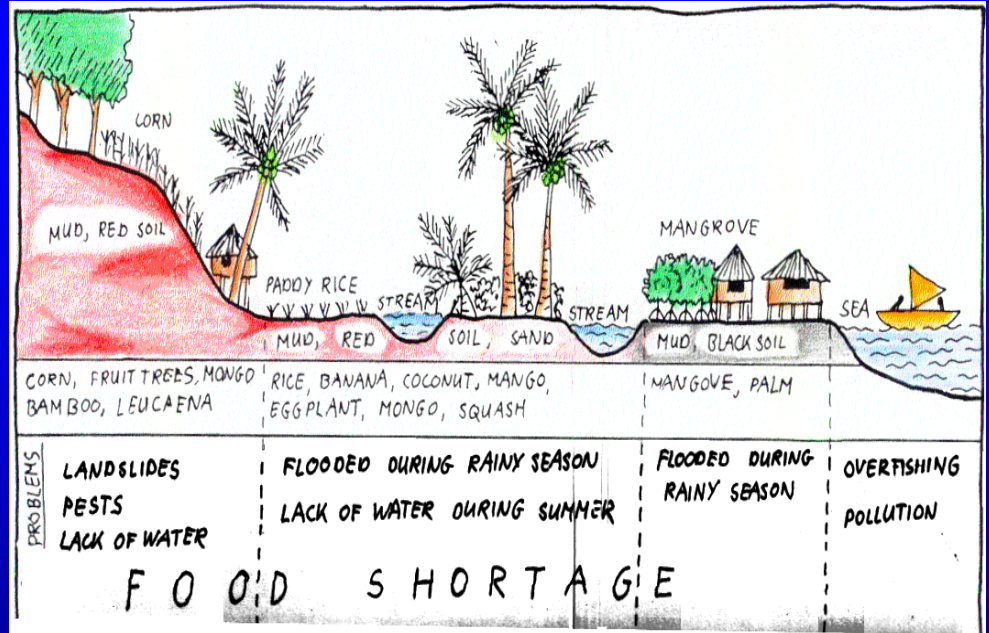


Coastal forests behind the beach provide protection and shade



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Risk Knowledge



Emergency Response & Recovery



**Incident
Command
System**



Government of India
Ministry of Home Affairs
National Disaster Management Division

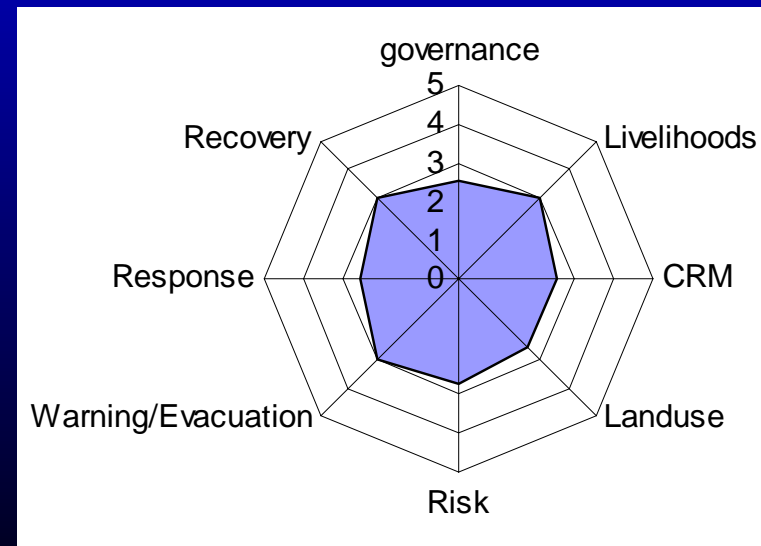


Warning & Evacuation



Assessing Resilience

| Elements | Benchmark issues | Status |
|-----------------------------|---|--------|
| Governance | Plans | ▲ |
| | Collaboration | ▼ |
| | Services | ■ |
| | Resources | ▼ |
| Socio-economy & Livelihoods | Diverse Programs | ▲ |
| | Technical and Financial Resources | ▲ |
| | Social Networks | ▲ |
| Coastal Resource Management | Institutions | ▲ ■ |
| | Habitat Protection | ▲ ■ |
| | Restoration | ▲ |
| Land use & Structure | Landuse plans | ▲ ■ |
| | Structures | ▲ |
| | Monitoring and implementation | ■ |
| | Redevelopment | ▲ |
| Risk Knowledge | Risk Assessment | ▲ |
| | Use of information | ▲ |
| | Risk communication | ■ |
| Warning and evacuation | Warnings | ▲ |
| | Systems disseminate warnings | ■ |
| | Evacuation | ▲ |
| | Outreach | ■ |
| Emergency response | Incident Command System/protocols | ■ |
| | Emergency Facilities | ■ |
| | Drills and training | ■ |
| Recovery | Disaster recovery process | ▲ |
| | Disaster recovery plans and process (short and long term) | ■ |



It Takes a Village!



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