From Disaster Recovery to Risk Reduction

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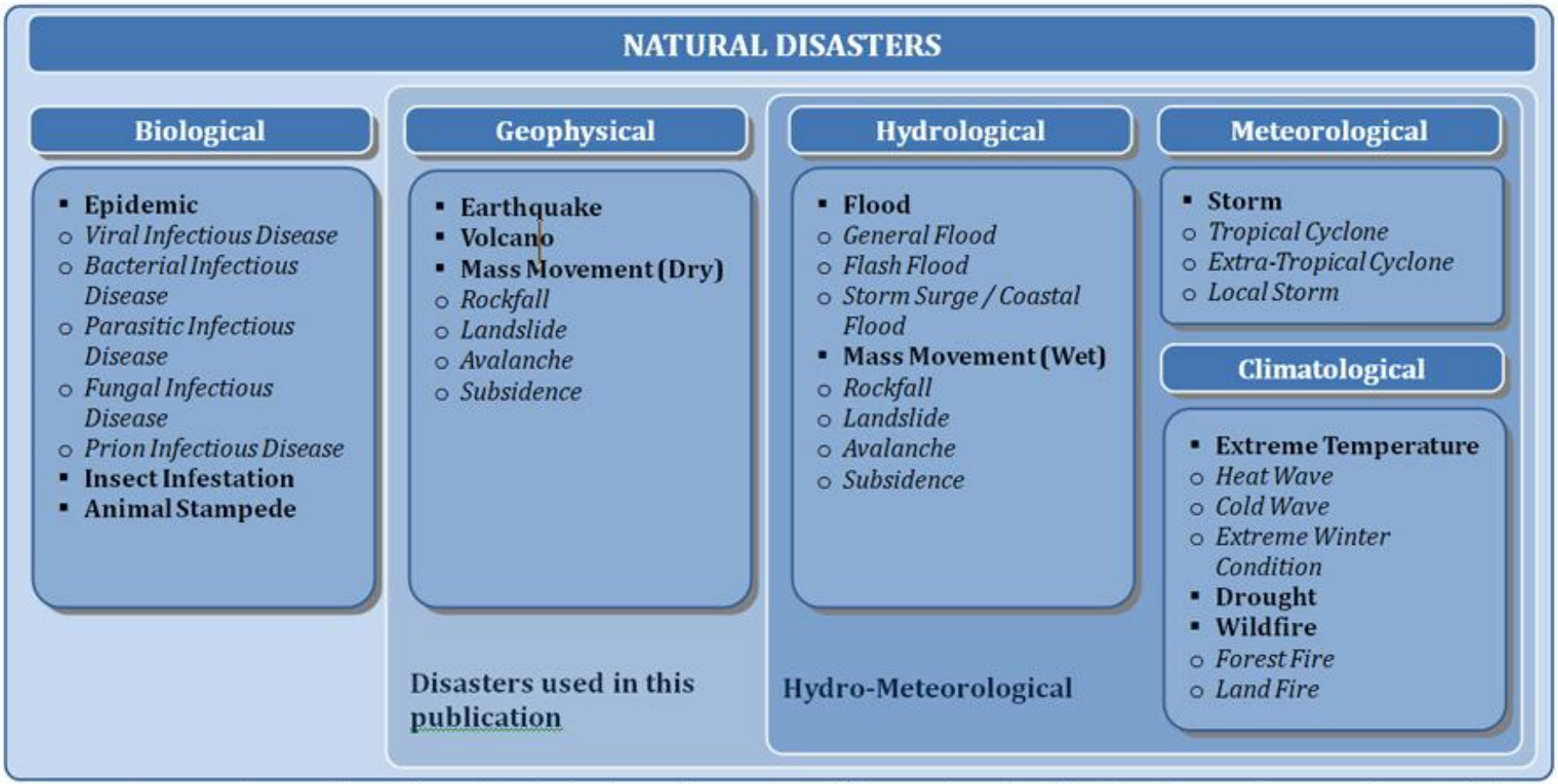
From Disaster Recovery to Risk Reduction

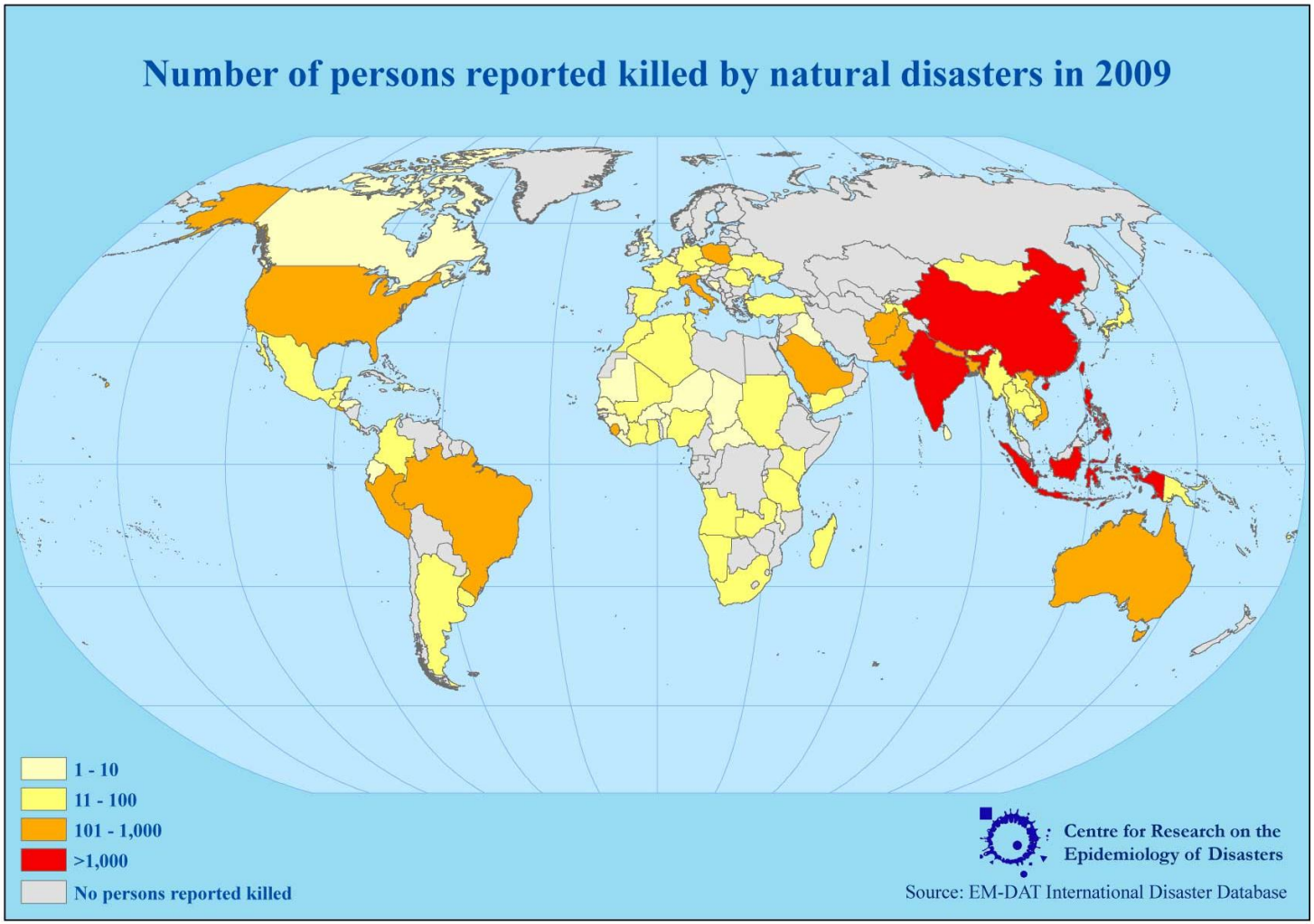
- Disasters - Introduction
- Disasters – The Sri Lankan experience – An overview
- Tsunami; Turning point in approach to disaster management
- Sarvodaya Approach to Disaster Manegement
- Disaster Mitigation and Risk Reduction
- Community Based Disaster Risk Management (CBDRM)
- Concluding Remarks

Classification of Natural Disasters

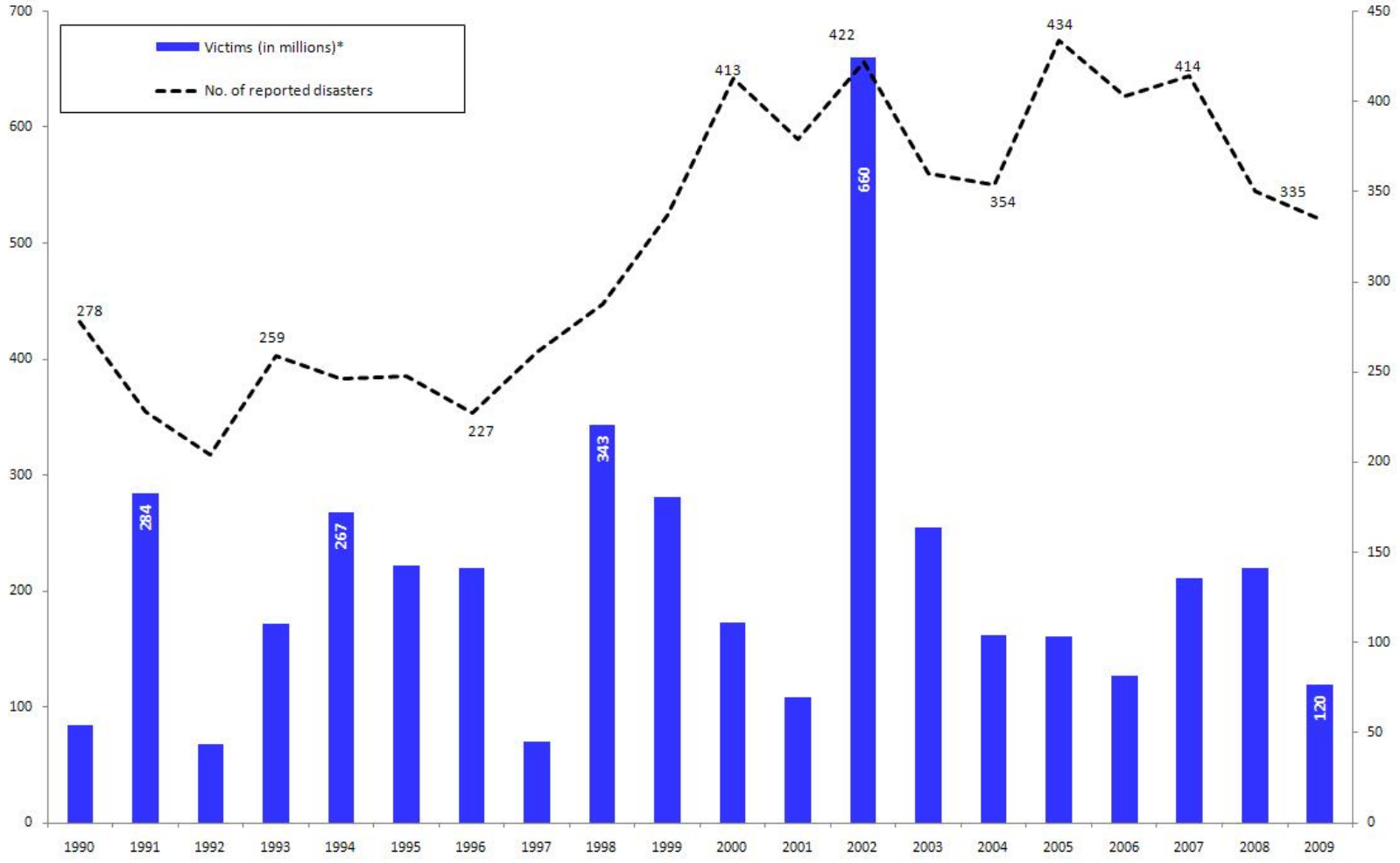


Source: "EM-DAT: The OFDA/CRED International Disaster Database www.emdat.be – Universit? Catholique de Louvain – Brussels – Belgium"

2009 - 335 natural disasters worldwide. 10 655 deaths, over 119 million people affected, over US$ 41.3 billion economic damages.



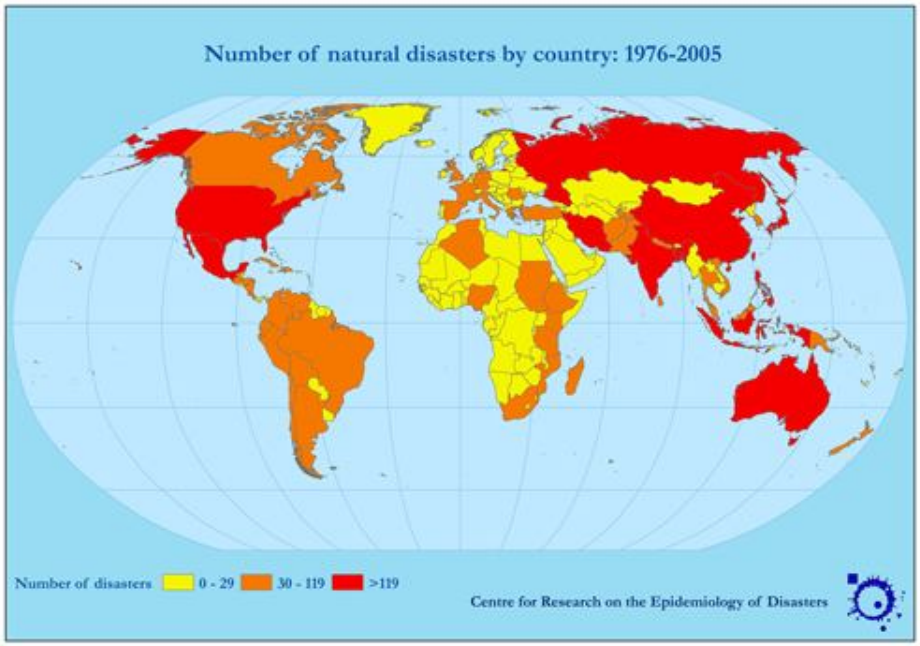
Disasters - Trends in Occurrence & Victims



* Victims: sum of killed and total affected

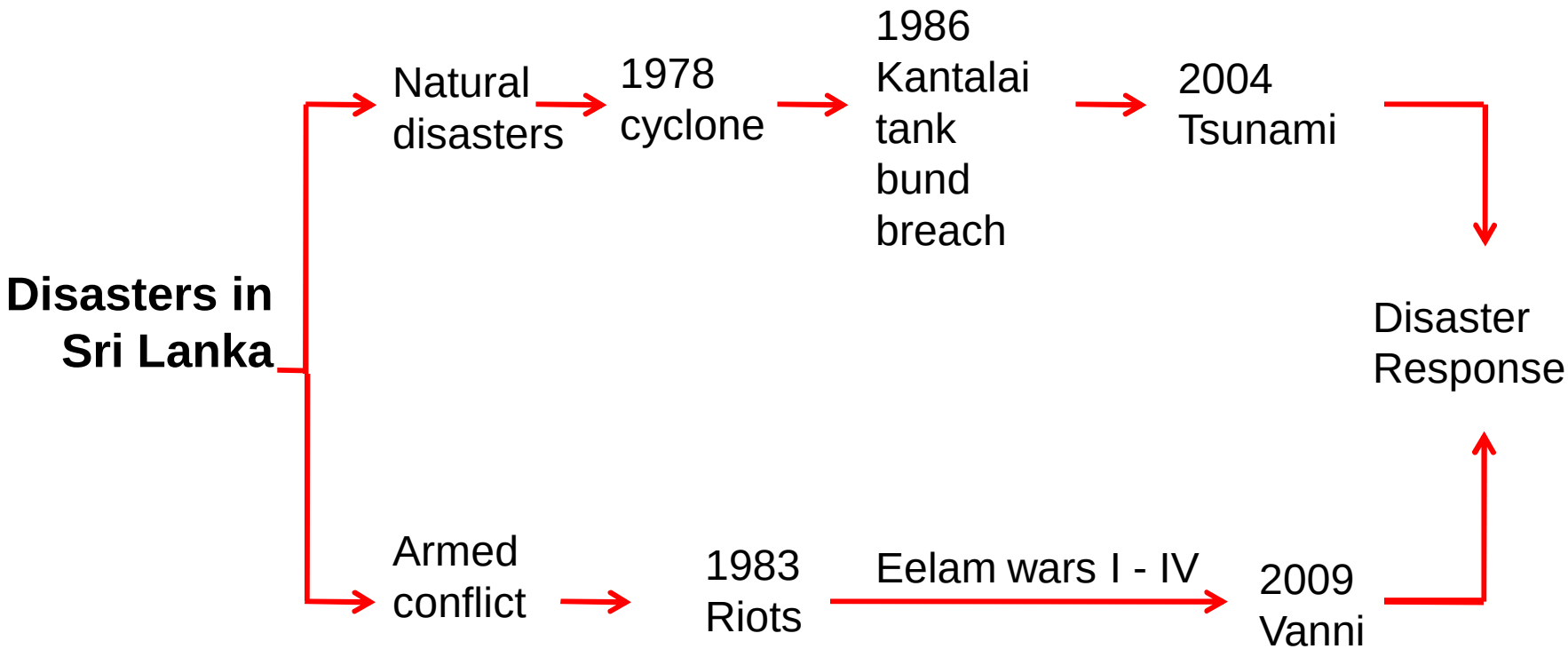
Source: "EM-DAT: The OFDA/CRED International Disaster Database www.emdat.be - Université Catholique de Louvain - Brussels - Belgium"

Asia experienced in 2009 once again the largest share in reported natural disaster occurrence (40.3%), accounted for 89.1% of global reported natural disaster victims and 38.5% of total reported economic damages from natural disasters (CRED 2010)



Natural Disasters in Sri Lanka

- Hydro-meteorological disasters
  - Floods
  - Landslides
  - Cyclones
  - Coastal erosion
  - Tsunami
- Drought
- Epidemics


Disasters in Sri Lanka
Natural disasters
1978 cyclone
1986 Kantalai tank bund breach
2004 Tsunami
Armed conflict
1983 Riots
Eelam wars I - IV
2009 Vanni
Disaster Response

1978 Cyclone

- Occurred on 23rd of November 1978
- Over 1 million people in the North Central and Eastern provinces affected
- Over 1000 people killed
- Partially or completely damaging 250,000 houses
- Rs.600 million for relief

Kantalai tank bund breach - 1986

- Occurred on 20th April 1886
- 10,864 persons affected
- 127 killed
- Destroyed 120 houses

Tsunami - 2004

- Marked a significant change in policy, approach and public perception on natural disasters
- Greater attention received towards mitigation and risk reduction
- Parliamentary Select Committee Appointed

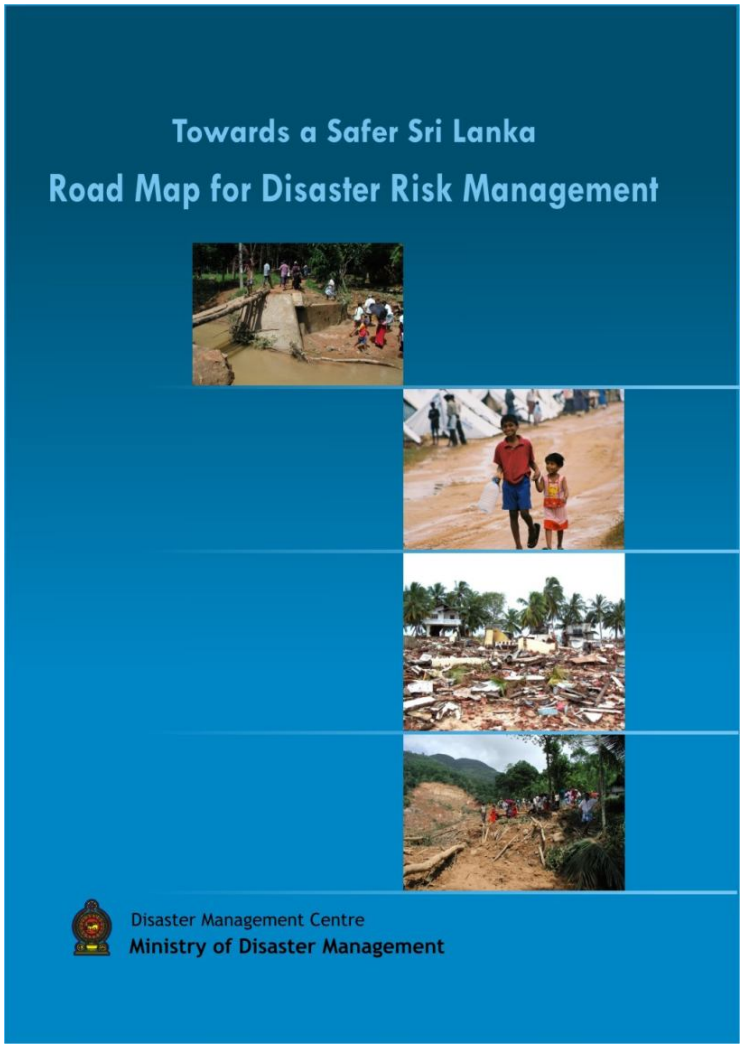
Tsunami Recovery – Generic Lessons learnt

Issue	Description	Need
High Altruism – Low "Technique"	Many issues were addressed with subjective approaches without a scientific basis Gross Overlapping	More internal and external coordination, Information sharing, Regulatory mechanisms, Protocols, Multiple levels
Resources spent on relief and infrastructure building than community level capacity building	Low attention on community level capacity building and lack of positive results	Learn more from the communities, advocate learning by the community for the community.
Ownership and participation	People who actually face the reality got less opportunity to give inputs to planning	Provide community more opportunity for experience sharing and participate in DRR related programs

Tsunami Recovery – Generic Lessons learnt

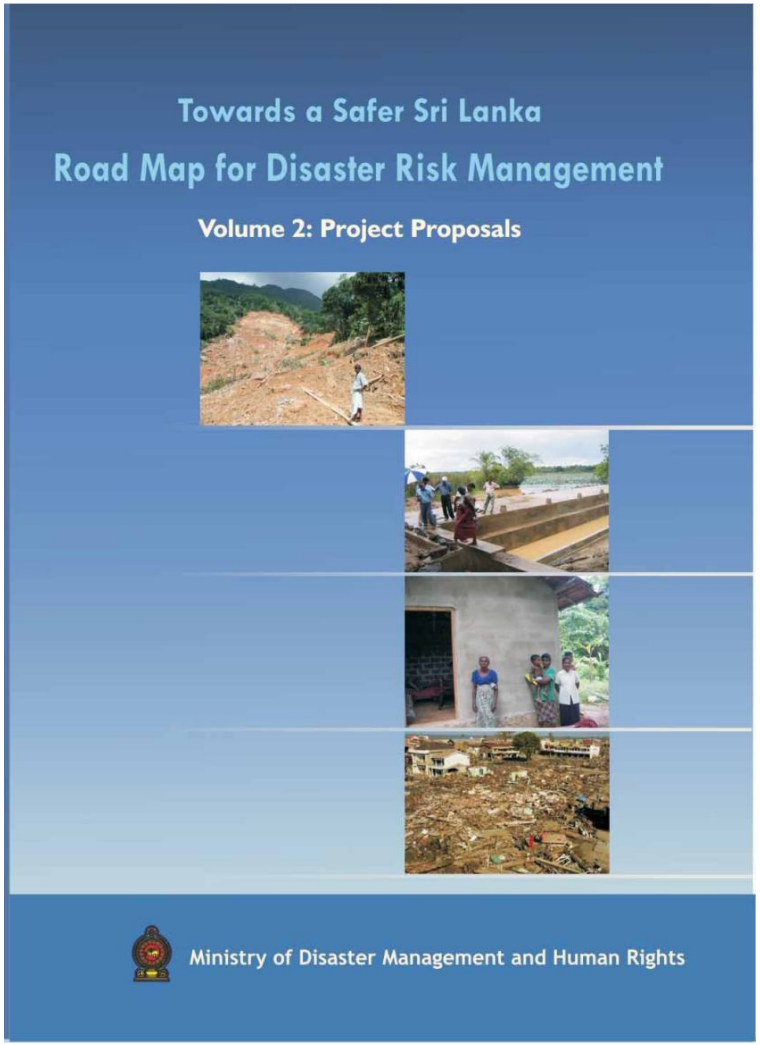
Issue	Description	Need
Who makes the final decision?	Emphasis less on community participation in decision making	Empower the community with adequate information and skills to have their own DRR Plans and Decisions.
Psychosocial Issues disregarded	After suffering with the civil strife for more than 25 years; tsunami and other social issues have increased vulnerability Being sensitive towards other socio-cultural issues when planning DRR activities (ie.religious beliefs)	Hazard X **Vulnerability** (----------)= Risk Capacity Plan to minimize factors increasing Vulnerability

National Policy on Disaster Management



1. *Policy, Institutional Mandates & Institutional Development*
2. *Hazard, Vulnerability & Risk Assessment*
3. *Tsunami & Multi-hazard Early Warning Systems*
4. *Planning for Disaster Preparedness and Response*
5. *Disaster Mitigation and Integration into Development Planning*
6. *Community-based Disaster Risk Management (CBDRM)*
7. *Public Awareness, Education and Training*

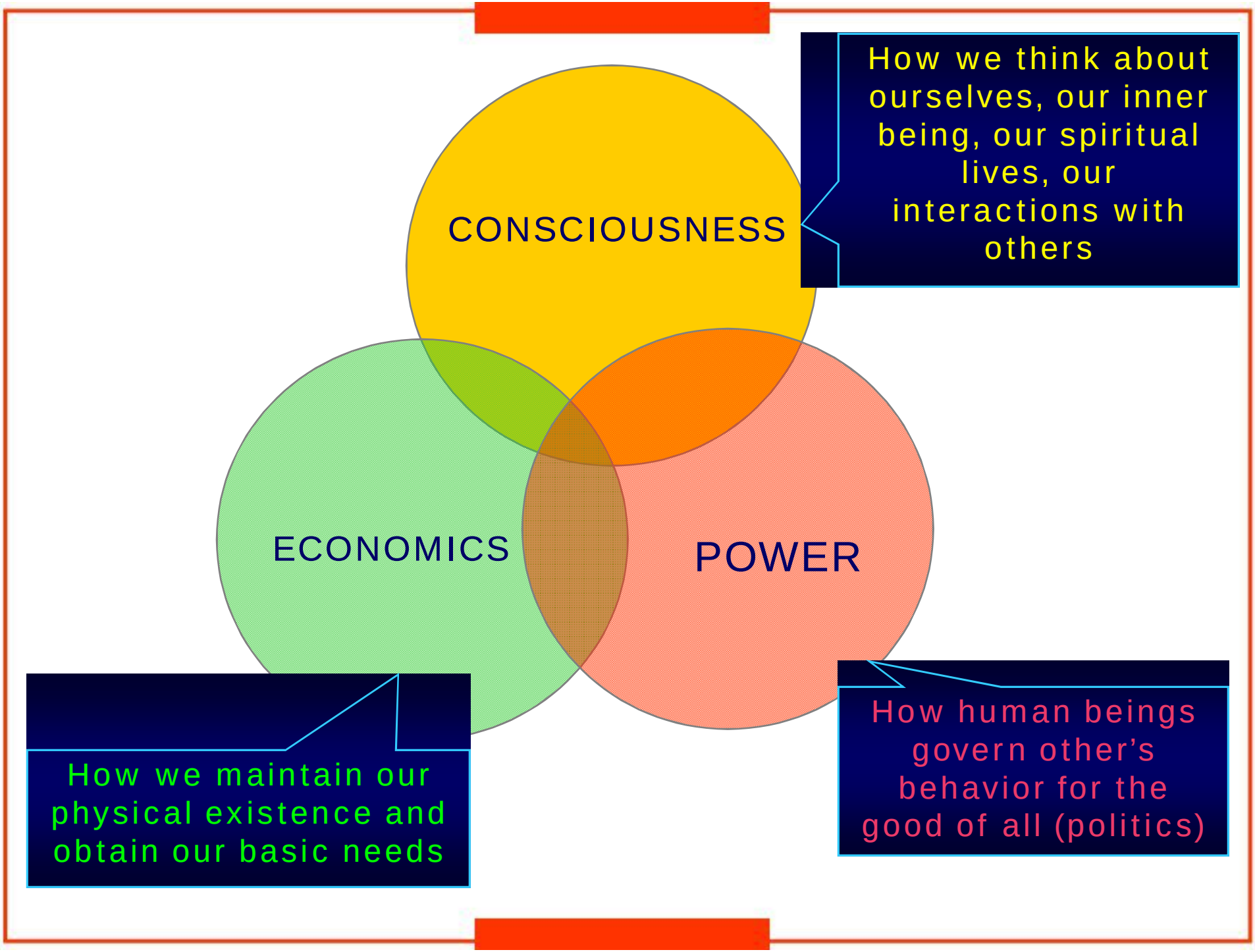
Some observations

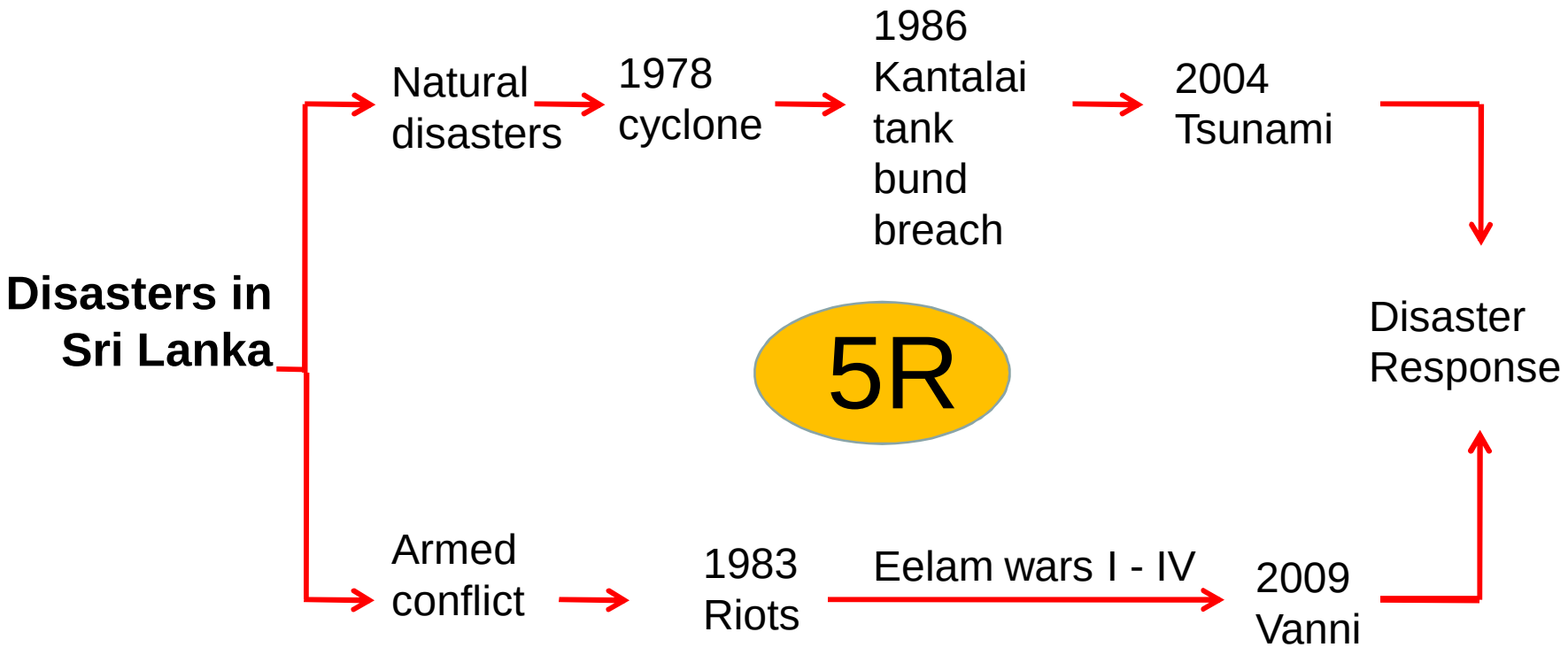


- Comprehensive approach covering both natural and human-made disasters
- Focus on “multiple hazards”
- Ineffective implementation mechanisms

Sarvodaya Approach

- Based on its holistic approach to development


CONSCIOUSNESS
How we think about ourselves, our inner being, our spiritual lives, our interactions with others
ECONOMICS
POWER
How we maintain our physical existence and obtain our basic needs
How human beings govern other's behavior for the good of all (politics)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5R
Disaster Response

Sarvodaya Approach

- Based on its holistic approach to development
- Post-Tsunami – *“From Tsunami to Deshodaya” (National Reawakening)*
- R Strategy
  - Relief
  - Rehabilitation
  - Reconstruction
  - Reconciliation
  - Reawakening
- Community Based Disaster Risk Management (CBDRM)

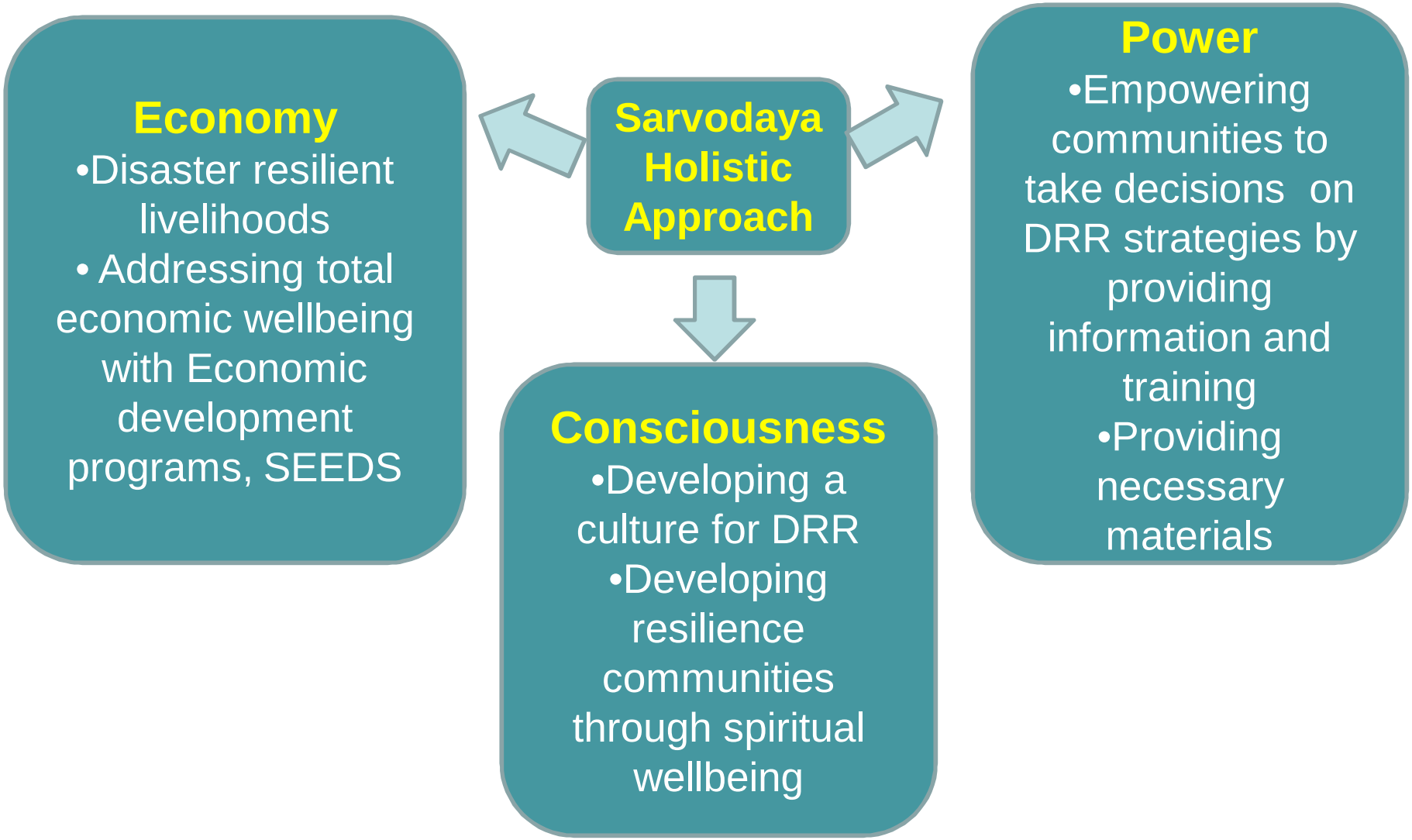
Community Based Disaster Risk Management (CBDRM)- Rationale?

- Communities bear the direct impact in a disaster
- They are also the first real-time responders to every disaster
- They are aware of locally available resources
- Have the most authentic knowledge of local risks and vulnerabilities
- They are also the reservoir of time-tested knowledge of coping mechanism

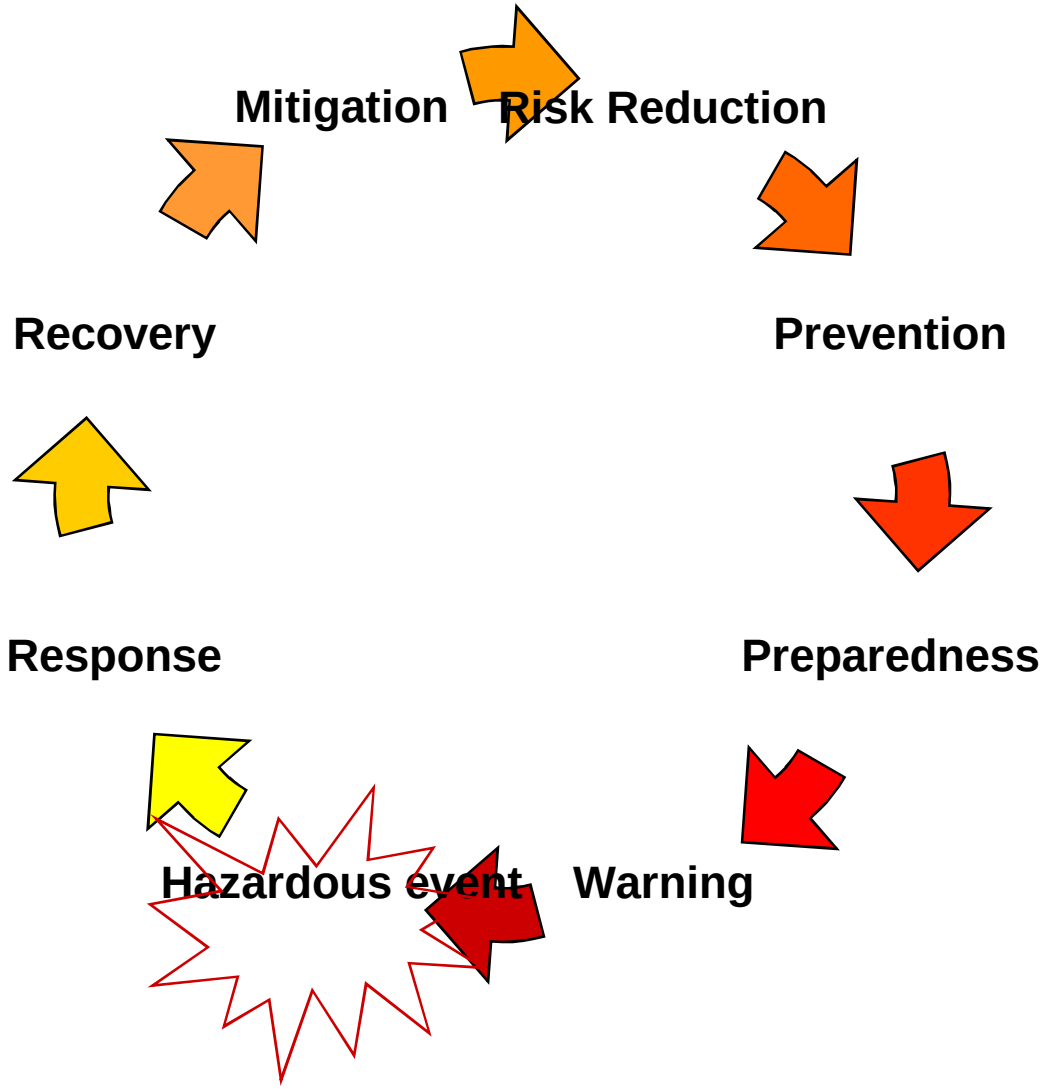
Community Based Disaster Risk Management (CBDRM)

- Communities are the best assessor of disaster damages
- Communities can also be the best evaluator of disaster recovery
- Communities are the ultimate target of any disaster preparedness plan
- Is there true commitment to this approach?
  - Institutional mechanisms
  - Capacity building
  - Resourcing

Sarvodaya Vision and CBDRM approach



The Disaster Cycle



Sarvodaya Community Disaster Management Centre

Objectives

- To make all Sarvodaya Service Villages Disaster Resilient and Responsive
- To enhance Sarvodaya Disaster Management Capacity and Practice

Components

- Community-based Disaster Risk Management and Village Resiliency
- Integration of Disaster Management Practice within Sarvodaya
  - Capacity Building
  - Communications and Command Center

Key Components

- To formulate a *village resiliency model* based upon the five-stage Sarvodaya village development model.
- To further develop existing hazard warning system capability by providing *community disaster management training.*
- To create a viable knowledge and expertise foundation in community-based disaster risk management at the SCDMC so that it can *maintain, disseminate and receive relevant disaster information to and from Sarvodaya communities*.

Activities

- Selection of 3000 “Grama Swaraj” Sarvodaya villages
- Village Resiliency Model
- PRAs
- Trainings to develop organizational & community capacity to identify prep procedures
- Resilience activities
- Train village leaders & members
- Train special interest groups
- Hazard mapping
- Conduct EW simulations/drills
- Identify & deploy appropriate technology for CBDRM
- Develop first medical responders, search & rescue, community health volunteer groups
- Create channels for direct input to policy and advisory processes from communities

Applied Research

Strengthening Resiliency of Tsunami Affected Communities (SRTAC)

Promotion of Community Based Disaster Management (CBDM) JICA Study

Last Mile Hazard Information Project

Post Disaster Reconstruction Learning of Indian Ocean Tsunami (ADRRN)

Program for Hydro-Meteorological Disaster Mitigation in Secondary Cities in Asia (PROMISE**) ADPC/USAID**

Vulnerability Context

- Degraded environment – soil erosion, siltation, salination, man made and natural destruction of coastal vegetation and eco system
- Increased vulnerability to natural hazards – settlement in unsafe locations, lack of disaster preparedness measures, lack of appropriate technology in DRR & livelihoods - tsunami, floods, cyclones, sea water intrusion, dengue outbreaks
- Limited/fragile natural resource based livelihood options - fisheries, paddy farming
- Weak marketing linkages
- Limited/weak community institutions and lack of initiatives
- Weaker relationships between the community and local mechanisms & authorities
- Inadequate/poorly maintained livelihood infrastructure

Bio shield Establishment

Nursery Training

Village Information Centres (VIC)

Disaster Risk Management
Hazard Mapping

Livelihood Development

Andaragasyaya

- Flood were an annual recurrence destroying crops making farming a risky proposition
- Previously the canal was 6 feet wide and badly silted
- Using heavy duty equipment the canal was widened to 30 feet width. Flooding of paddy fields have been stopped
- In *addition* alongside 4 acres were opened up for mangrove planting. Canals were dug in the “fish bone” design following the model tested by MSSRF India
- Mangrove seedlings are acquired from Matara Thalalla community known for their expertise in Mangroves

SRTAC - Learnings

- Building the livelihood asset base in itself will not assure the sustainability of livelihoods; unless there is supportive governance mechanisms/structures
- Community cannot take the leadership in DRR as the space for input to development decisions is minimal
- Sensitivity to gender roles and improved gender relations are vital for effective livelihood development and DRR
- Disasters should be considered as a development issue and the capacity of local governance institutions should be built to assess, plan and implement risk sensitive development
- Ecosystem based holistic approach should be adopted to address and enhance resilience

Safe Community, Safe Village Sri Lanka

PROJECT SELAMAT

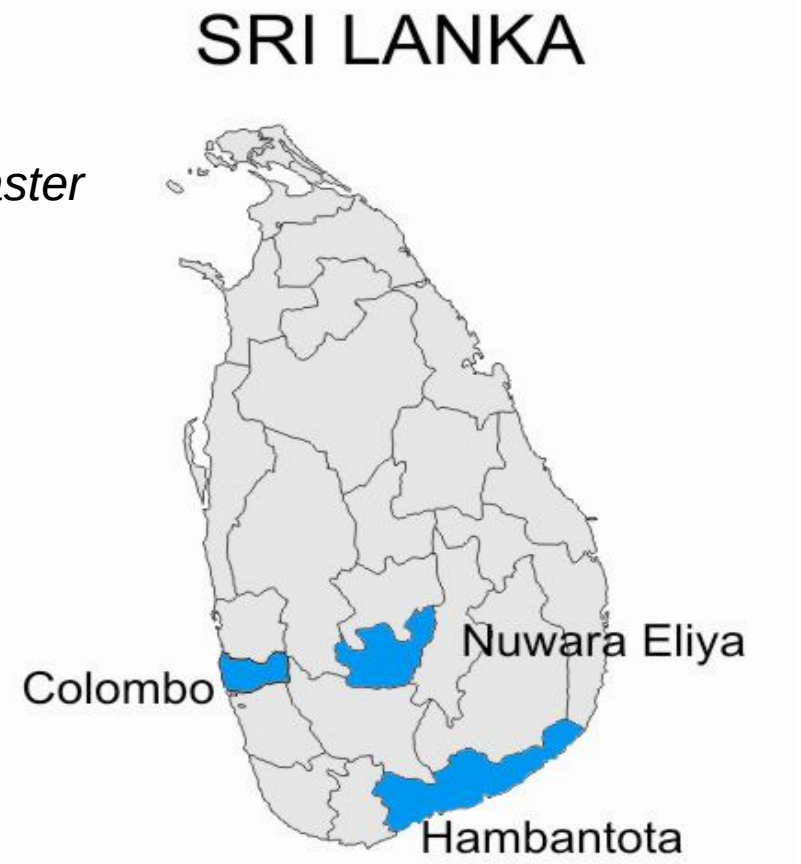
"Build the capacity of 7 disaster prone communities in Sri Lanka towards disaster mitigation and response"

Hambantota District:

Madaketiya
Kahandamodara

Nuwara-Eliya District:

Gaminipura,
Vidulipura-North,
Vidulipura-South,
Kumbalgamuwa
Ladupita



Community First Responder Training

Community infrastructure improvement

Gaminipura

Simple low cost interventions - landslides risk - evacuation routes.

Kumbalgamuwa

In the Kumbalgamuwa there is a bridge in the main road damaged by the landslides.

Temporary bridge has been constructed by the community but which is not safer to use although more than 150 people including school children are using this temporary bridge daily.

Since which is the only road direct to the main road which is an important point in the evacuation path. Because when there is a disaster community have no other option to go to the evacuation centre or to the hospital. Since the permanent bridge has constructed to make it more safer as evacuation route.

Community Early Warning Systems

- Establishment of sirens in Medaketiya and Kahadamodara villages in Hambantota
- Moc drills
- June 12th 2010 Tsunami

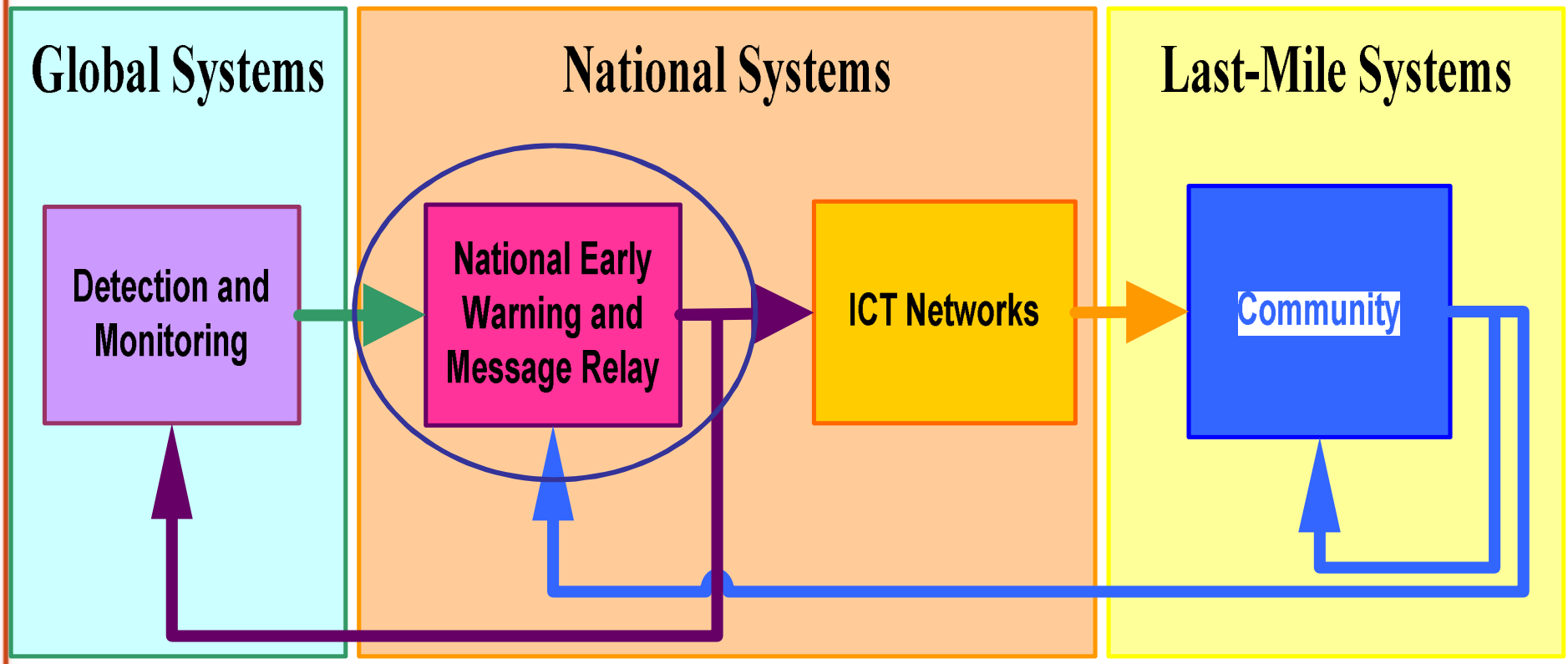
'Evaluating Last Mile Hazard Information Dissemination Project' (HazInfo project)

Rationale (supported by IDRC/LIRNEasia)

To warn communities about rapid onset disasters, improvements are required on at least three parallel fronts:

- the science of rapid detection and analysis needs to be fine-tuned;
- proper institutional arrangements have to be in place to decide on and issue credible, swift warnings; and
- there should be effective ways of communicating these warnings to everyone at risk**.**

Hazard Detection and Notification Chain of Systems



Floods Disaster May 2010

- Worst floods disaster in decades
- 14 districts
- 580,000 people, 122,740 families affected
- 23 deaths

Lessons from the May 2010 Floods Disaster

- Multiple causative factors reminding the need for a comprehensive, multi-level, multi-disciplinary approach to disaster management in the country.
- Highlighted the gap between policy and practice
- Once the floods recede, the attention given to disaster also wanes off!.

Residents walk through a flooded road after torrential rain in the Ja-Ela suburb of Colombo October 24, 2008. At least six districts in Sri Lanka have experienced flooding this week.

Tsunami Alert June 12th 2010

- Public confusion
- What are the institutional arrangements for issuing alerts?
- What are the responsibilities and specific mandates of different government agencies?
- Were there other methods of “warning” operating parallely?

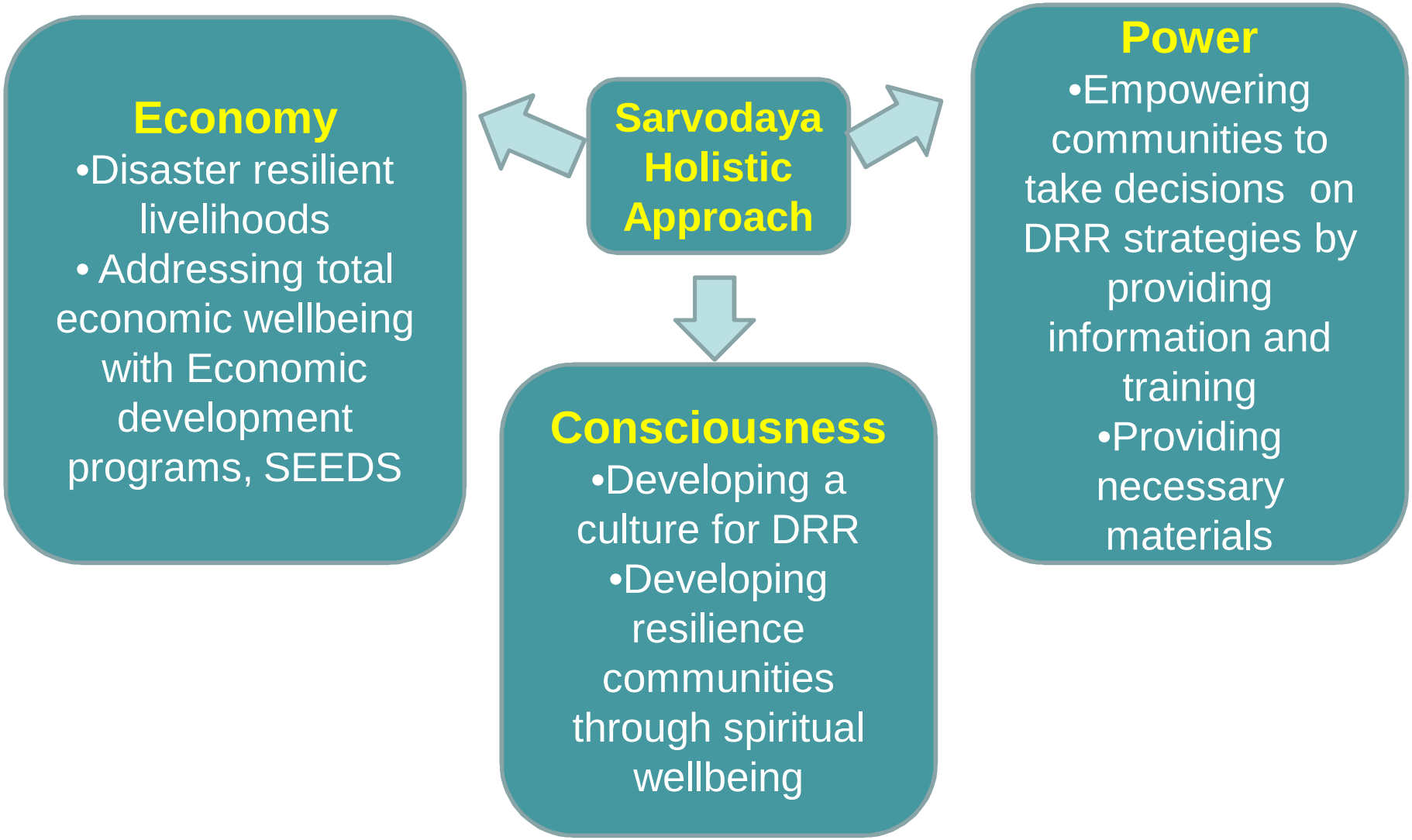
Tsunami Alert June 12th 2010

- Are we clear on the terminology we use?;
  "Watch", "Alert", "Warning"
- What are the standard terms in Sinhala and Tamil?
- What do they mean to an ordinary person (non-technical person)
- Are we clear on the expected response from individuals and communities for each type of "message"?
- Do our disaster preparedness & mitigation training correspond to standard protocols?

Concluding Remarks

- The policy is sound – practice is not.
- The approach to disaster mitigation has to be an integrated one – from classical approach to a new paradigm
- Equal attention to given to biological disasters such as epidemics and animal attacks and risk reduction initiatives should cover these areas as well.
- Each phase of disaster cycle has to be given equal importance and appropriate community interventions should be identified.
- CBDRM should be given greater importance and
- Institutional arrangements for mitigation, response and warning systems should be revisited, re-evaluated and clarified.

Sarvodaya Vision and CBDRM approach



Thank You!