



Integrated Approaches to Climate Change Adaptation and Disaster Risk Reduction for Island Ecosystems

Radhika Murti
Programme Coordinator DRR
IUCN Headquarters, Switzerland



Outline

- IUCN
- The Need for Integrated Approaches
- Ecosystem based DRR
- Ecosystem based Adaptation
- How do we implement such Approaches?

IUCN, a unique democratic union since 1948...

International Union for Conservation of Nature

Members

- 1200+ Members worldwide from over 160 countries
- States, Government agencies, NGO
- Over 60 regional and national committees

Commissions

- 12000+ voluntary experts in 6 thematic groups:



Secretariat

- 1000+ full time staff worldwide
- 350 temporary staff, consultants and interns
- HQ in Gland, Switzerland
- Over 60 offices around the world



Why Integrated Approaches?

- Combining DRR and CCA would help both communities to learn from each other
- prepare for short-term and long-term impacts of disasters and changing environmental conditions
- contribute towards 'sustainable human well being' and sustainable development



Why Integrated Approaches?

DRR

continues to be reactive

preparedness continues to focus on preparing for the looming disaster NOT on reducing risks, including underlying risks

Response and recovery do NOT focus on building back better

Slow onset hazards are often overlooked/under-resourced

CCA

proactively focuses on future

CCA focuses on reducing longer term underlying risks to cope with future changes

Principles of climate resilient development and planning can facilitate building back better

Provides an opportunity to reduce the risks of slow onset hazards



Why Integrated Approaches?

DRR

Focuses on hazard management

DRR provides a concrete entry point, despite uncertainties surrounding CC

These mechanisms exist in DRR, much to learn from

CCA

Does not take into account immediate and short term hazards

May find it challenging to convince key stakeholders to invest in CCA

Establishing local to global policy, practice and funding mechanisms

factor for convergence of disaster risk reduction and climate change adaptation



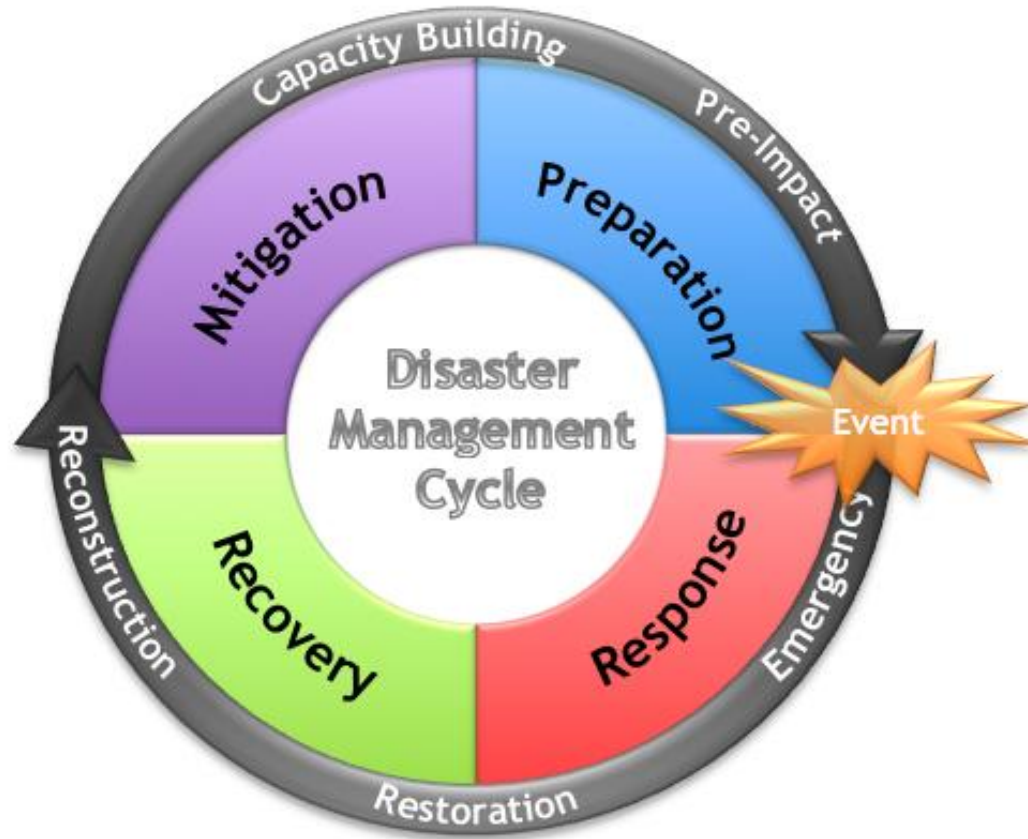


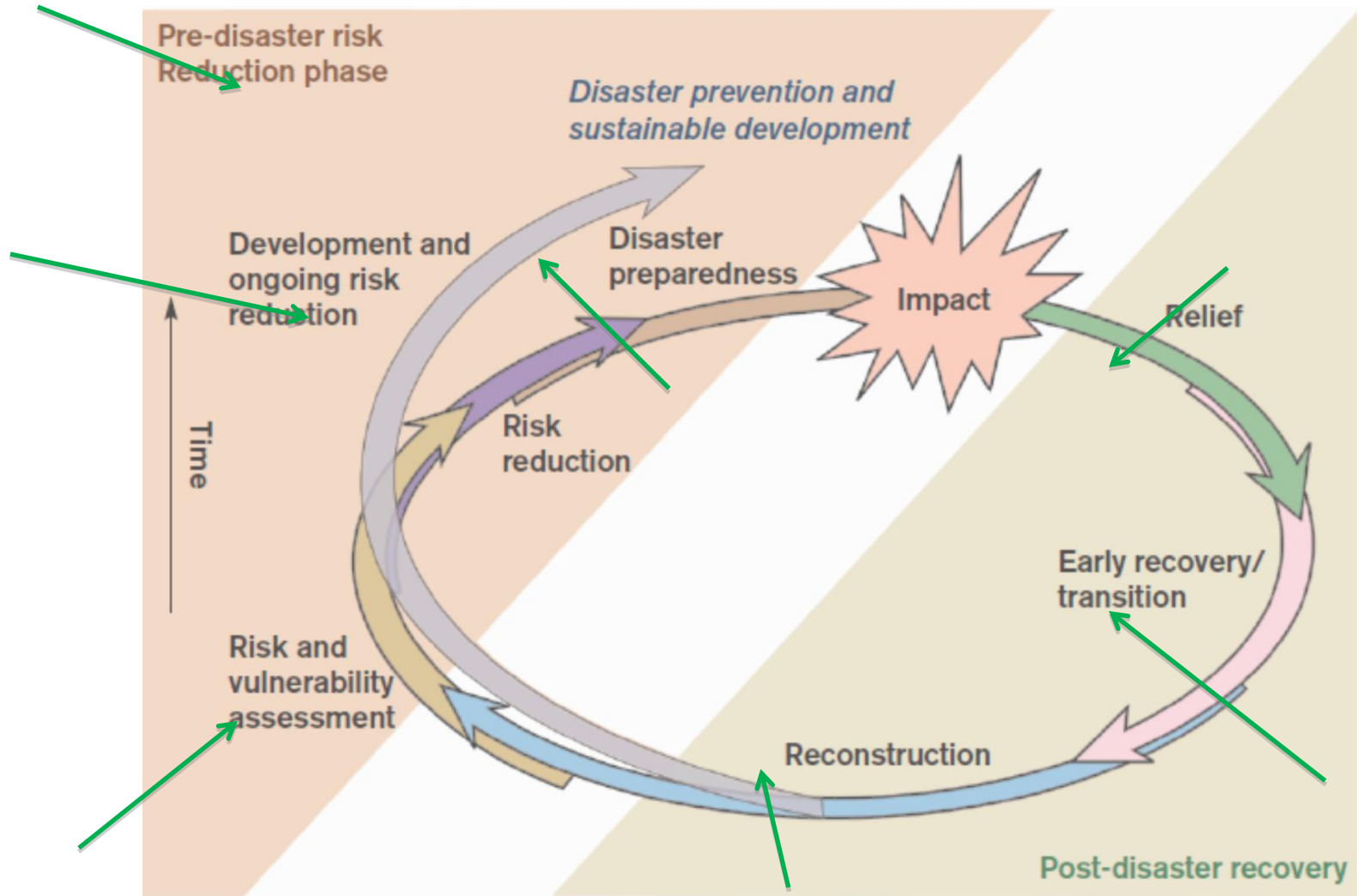
Ecosystems and Disaster Risk Reduction (DRR)

“Sustainable management, conservation and restoration of ecosystems to provide services that reduce disaster risk by mitigating hazards and by increasing livelihood resilience.”

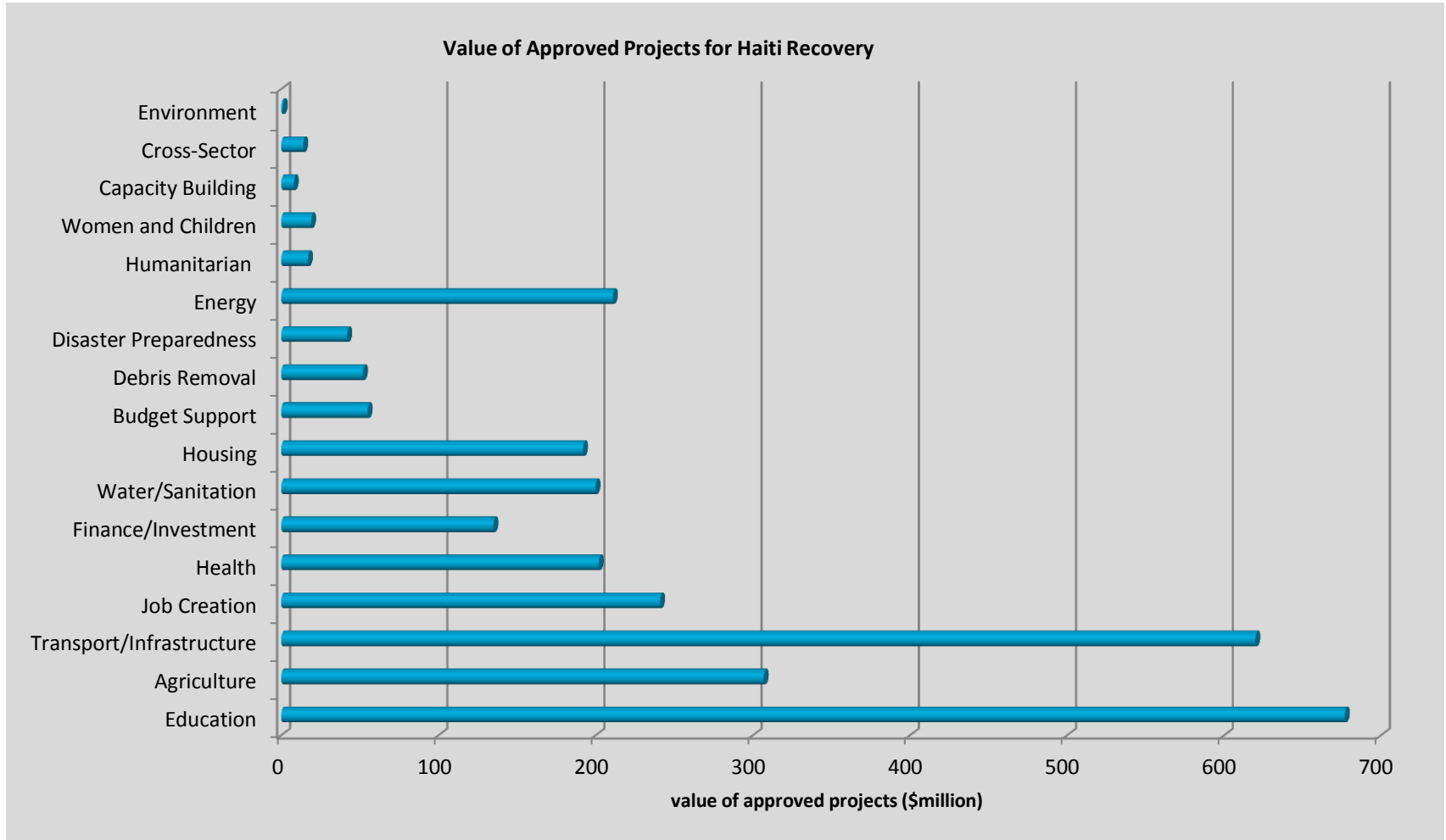


(Partnership for Environment and Disaster Risk Reduction
PEDRR, 2013)





Source: RICS (2009)





Ecosystem based Climate Change Adaptation

Ecosystem-based adaptation (EbA) is the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change.

CBD's AHTEG4 (2009)



Ecosystem based Climate Change Adaptation

- Building adaptive capacities
- Integrating indigenous knowledge and institutions
- Improving local governance over land/water/natural resources
- Agro-forestry (with appropriate species that are better adapted to CC)
- Ecosystem restoration with species that are better adapted to warmer conditions;



Ecosystem based Climate Change Adaptation

- Management of Invasives (real issue for islands)
- Diversification of land use and livelihood options to spread risk, enhance resilience
- Seasonal movement of people and livestock between winter and summer pastures (important to combat slow onset droughts;
- Management of ground water and catchments
- Protecting and restoring natural infrastructure (dunes, mangroves, forests etc.)



Why Ecosystems as a Solution?

- Tried and tested - lessons learnt and best practices from application (different ecosystems, geographical regions, scales)
- Easily accessible guidance material, manuals and scientific knowledge
- Based on participatory, local ownership, social and institutional governance mechanisms
- Facilitate holistic management approaches with defined monitoring mechanisms
- Promote global, regional and national dialogue and cooperation



Do We Have an Economic Case?

Ecosystem	Hazard	Hazard mitigation value (US\$)
Coral reefs (global)	coastal	189,000 per hectare/year
Coral reefs (Caribbean)	coastal	700,000– 2.2 billion per year (total value)
Coastal wetlands (United States)	hurricane	8,240 per hectare/year
Coastal wetlands (United States)	storms	23.2 billion per year (total value)
Luznice floodplain (Czech Republic)	floods	11,788 per hectare/year
Muthurajawela marsh (Sri Lanka)	flood	5 million per year (total value); 1,750 per hectare/year



How Do We Do this?

- MAKE THE CASE!!
- Learn from practice (case studies, IUCN's EbA learning framework)
- Commit to up scaling good practices!
- Engage with donors in a technical capacity to help inform their funding priorities
- Invest in gathering empirical evidence – recognise and promote the links between science, policy and practice
- Establish partnerships across communities of practice – DRR/Humanitarian Aid, CCA, Development
- Promote complementary solutions – its not green versus grey!



Island Ecosystems

“Islands are the bell-weatherers of international environmental policy.

The world will see their success or failure on our islands first.”

**President James A. Michel
Seychelles**