

Investing in Ecosystem- based Disaster Risk Reduction (Eco-DRR) and Climate Change Adaptation

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IUCN (International Union for Conservation of Nature)

Biodiversity for DRR

Biodiversity →
crucial, often
underestimated
role in the
mitigation of
disaster risks

Hydrological disasters

e.g. **Tsunamis**

Mangrove and
reef systems
protect
coastlines

Meteorological disasters

e.g. **Storms**

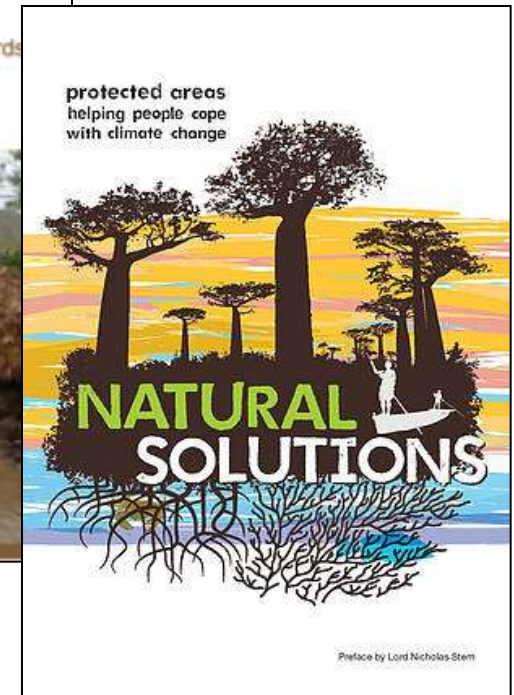
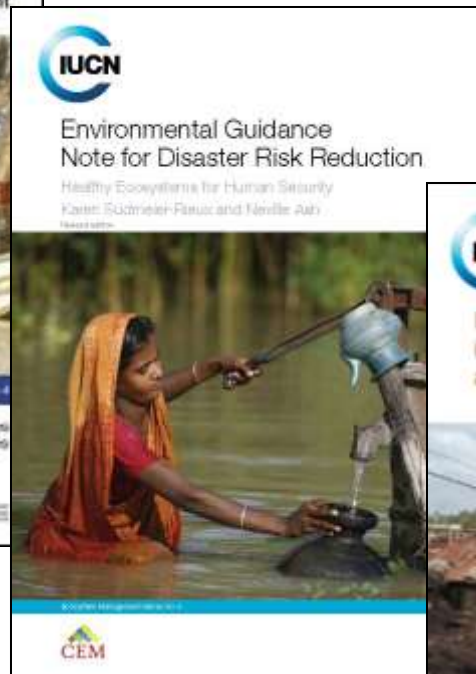
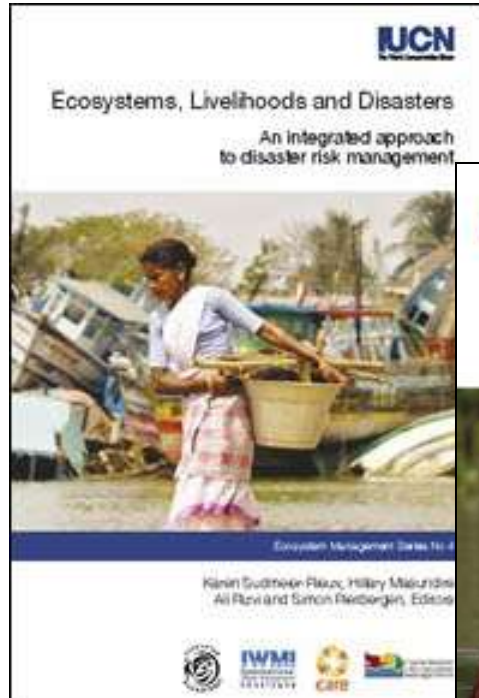
Riparian
forests control
sedimentation,
reduce effects
of flooding

Biotic disasters

e.g. **Invasive
species**

Diverse
ecosystems are
less prone to
intrusion of
invasive
species

Publications on DRR following Western Indian Ocean Tsunami



Mosaic landscaping for Fire Management - Lebanon



IWRM - tropical storms and flooding in Guatemala / Mexico following Stan, 2005



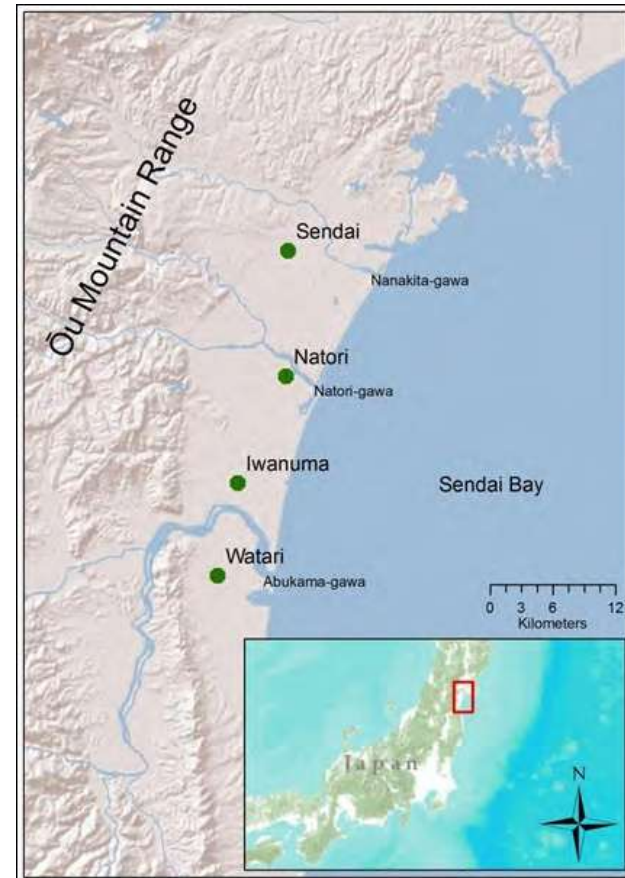
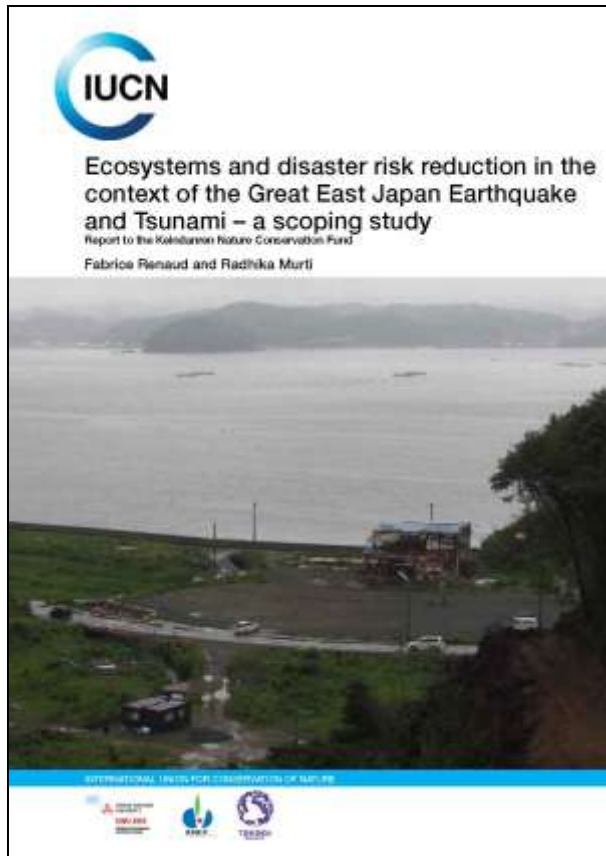
Mangrove Rehabilitation



Workshop on Ecosystem-based DRR (Eco-DRR) Sendai July 2012

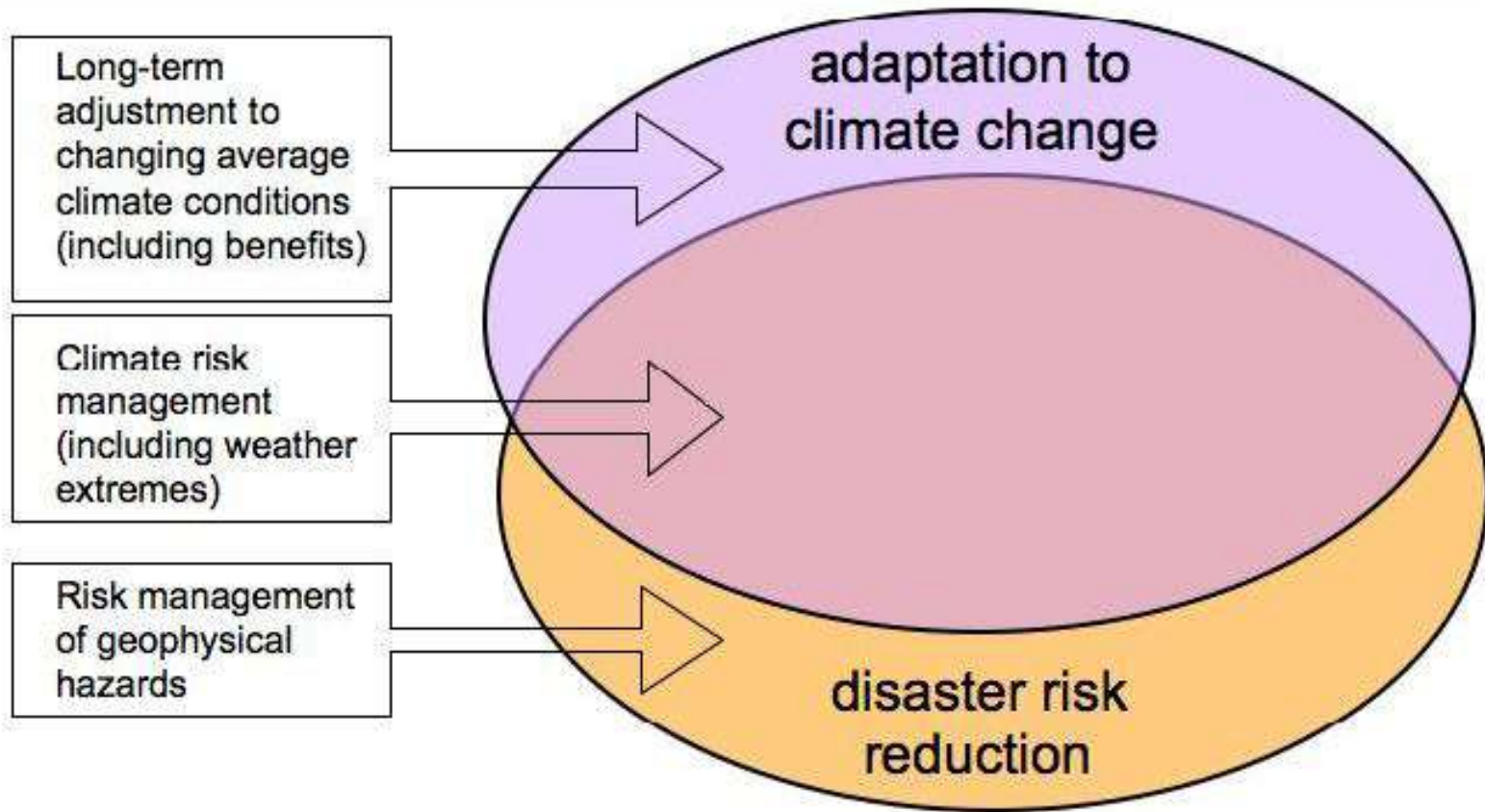


Documentation of Perceptions and Practices on Ecosystem Based Solutions for DRR in the Affected Areas



Linking CCA to disaster risk reduction

Overlaps between DRR and CCA



Source: Mitchell and van Aalst, 2008

EbA in IUCN



EbA in IUCN



- **Asia:** Bangladesh, Cambodia, China, India, Indonesia, Lao PDR, Maldives, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam
- **West Asia:** Egypt, Jordan, Lebanon, Morocco and Palestine
- **Central America:** Mexico, Honduras, Guatemala, Panama, El Salvador and Costa Rica
- **South America:** Peru, Chile, Colombia, Ecuador, Bolivia
- **Eastern and Southern Africa:** Botswana, Ethiopia, Kenya, Lesotho, Namibia, Seychelles, South Africa, Sudan, Tanzania and Uganda
- **West and Central Africa:** Benin, Burkina Faso, Cameroon, Central African Republic (CAR), Chad, Congo, Ivory Coast, Democratic Republic of Congo(DRC), Gabon, Gambia, Ghana, Guinea, Equatorial Guinea, Mali, Niger, Nigeria, Rwanda, Senegal, Sierra Leone and Togo

Established Global Coordination – Partnership for Environment and Disaster Risk Reduction (PEDRR)



UNITED NATIONS
UNIVERSITY

UNU-EHS

Institute for Environment
and Human Security



United Nations
Educational, Scientific and
Cultural Organization

ProAct
network



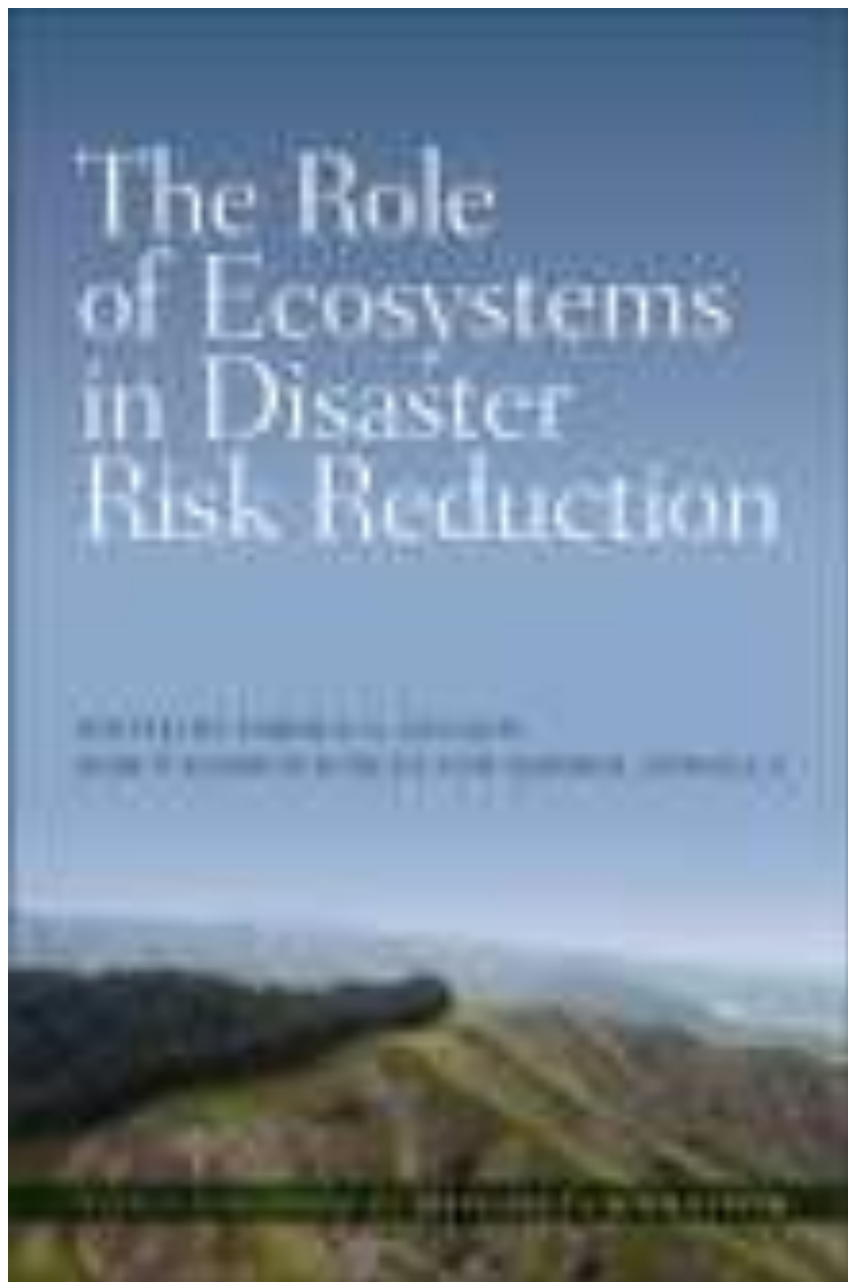
HELVETAS
Swiss Intercooperation



SEI

STOCKHOLM
ENVIRONMENT
INSTITUTE





Environmental Guidance Note for Disaster Risk Reduction

Healthy Ecosystems for Human Security

Karen Sudmeier-Rieux and Neville Ash

Revised edition



Ecosystem Management Series No. 8



PEDRR

Ecosystems for Adaptation
and Disaster Risk Reduction



About us

International Science –
Policy Workshop 2014 on
Eco-DRR and CCA

Ecosystem-based disaster risk
reduction and climate change
adaptation: Guiding development
policies in the 21 st century.

Dates: 16-18 June 2014

Venue: Jakarta/Bogor, Indonesia





Massive Open Online Course

Disasters and Ecosystems: Resilience in a Changing Climate

In 2014, the United Nations Environment Programme (UNEP), through its Global Universities Partnership on Environment for Sustainability (GUPES), and Cologne University of Applied Sciences (CUAS), Germany, will launch the **first Massive Open Online Course (MOOC)** on *Disasters and Ecosystems: Resilience in a Changing Climate*.

"Development cannot be sustainable if the disaster risk reduction approach is not fully integrated into development planning and investments."

Ban Ki-moon

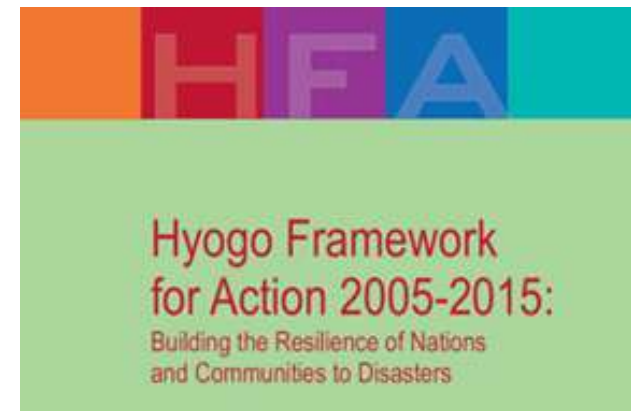
Hyogo Framework of Action (HFA)



- Hyogo Framework for Action is global plan to reduce disaster risk
- 168 signatory nations

Five Priority Areas 2005-2015:

1. Strengthening institutions
2. Identify, monitor & communicate risks
3. Improve education & awareness – culture of safety
4. Address underlying risks
5. Strengthen preparedness



Key elements for successful disaster risk management (DRM) across governance scales and development sectors identified in the *2011 Global Assessment Report on Disaster Risk Reduction*

INTEGRATE DRM INTO EXISTING DEVELOPMENT INSTRUMENTS AND MECHANISMS

Regulate urban and local development

Use participatory planning and budgeting to upgrade informal settlements, allocate land and promote safe building

Protect ecosystems

Employ participatory valuation and management of ecosystem services and mainstreaming of ecosystem approaches in DRM

Offer social protection

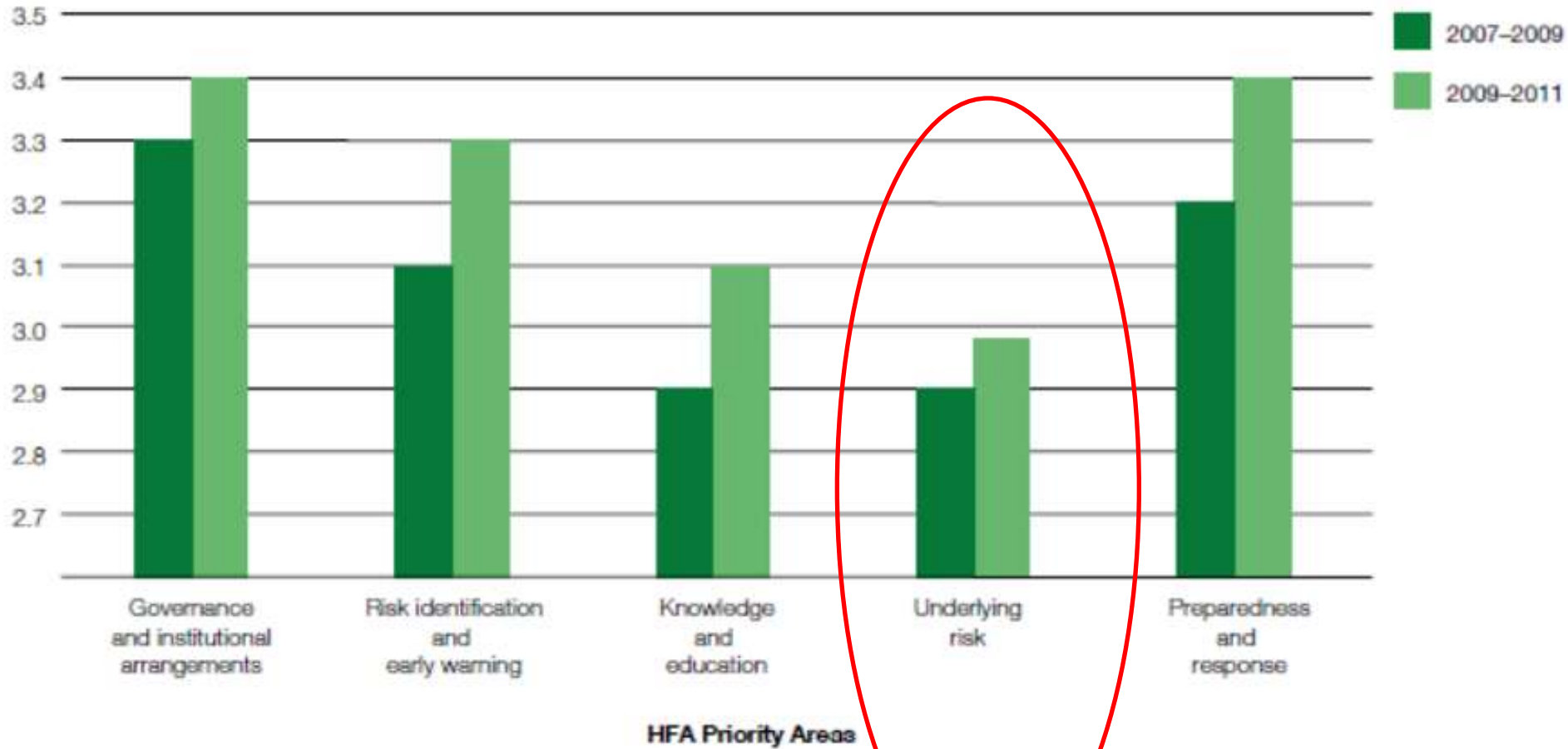
Adapt conditional cash transfer and temporary employment schemes; bundle micro-insurance and loans; consider social floor and poverty line

Use national planning and public investment systems

Include risk assessments in national and sector development planning and investment

Progress of HFA

Average score of progress

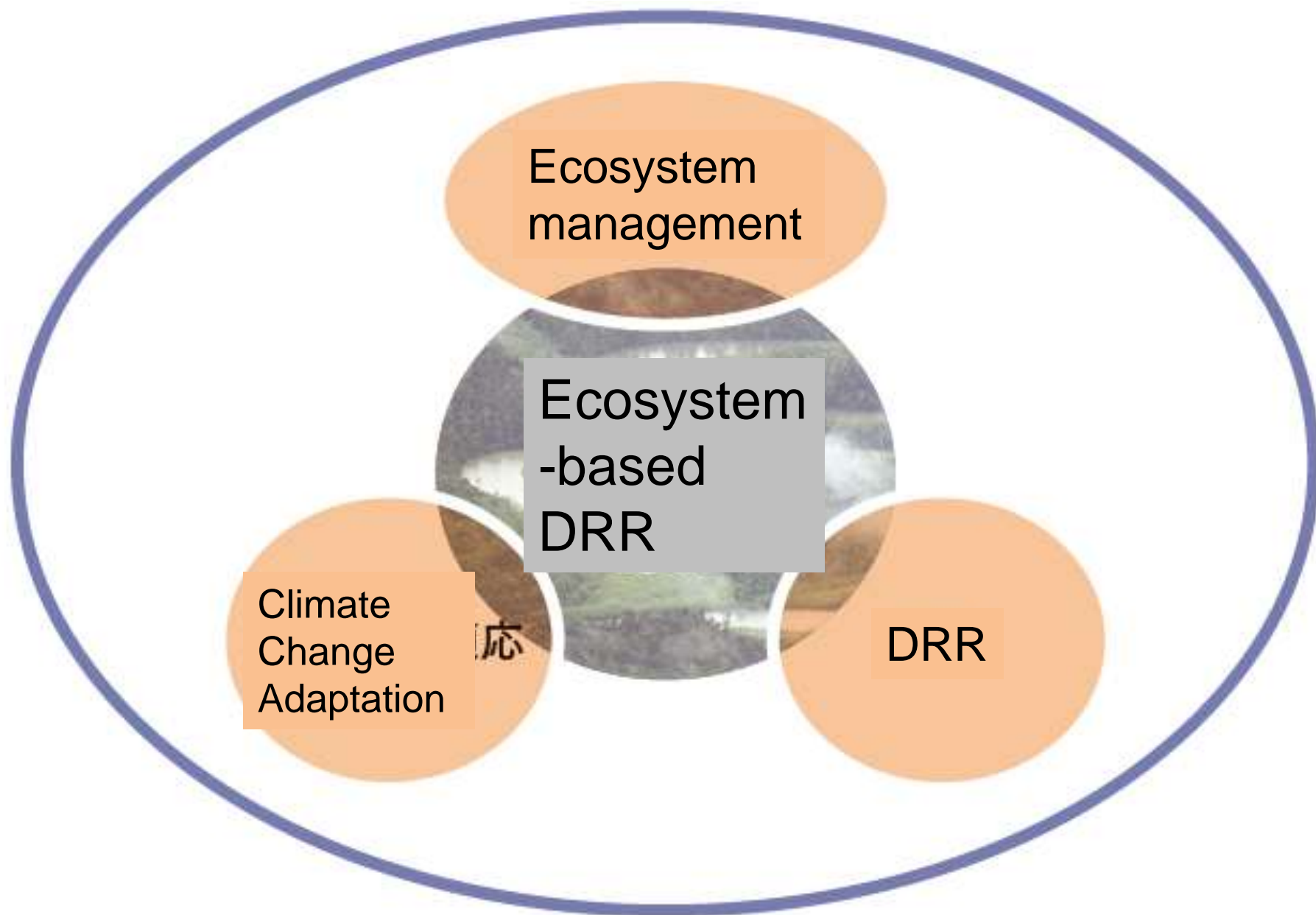


Ecosystems for DRR : No-Regrets strategy

- Locally accessible solutions
- Relatively low-cost installation and maintenance
- Natural infrastructure can reduce hazard impacts and vulnerability
- Livelihood benefits for human well-being *regardless* of a disaster event
- Yet ecosystems also have limitations



Sustainable development



International Symposium on Ecosystem-based Disaster Risk Reduction

12 November 2013, Tokyo, Japan



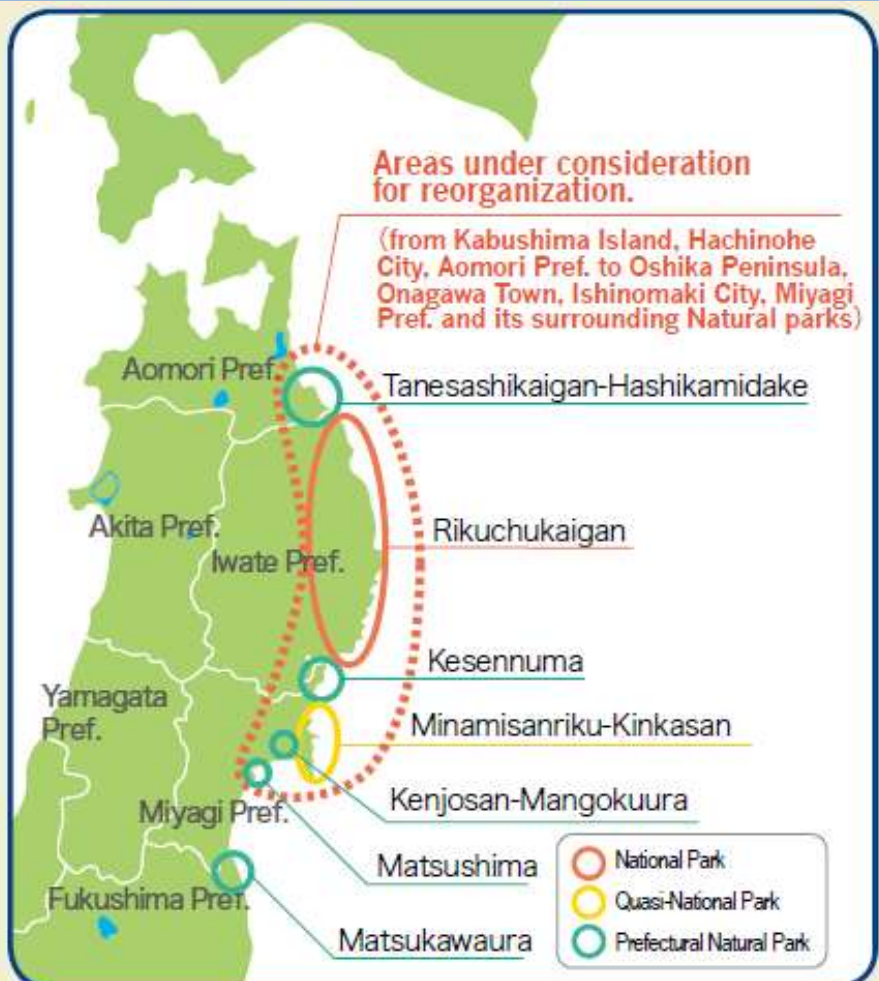
Asia Parks Congress and Sanriku Reconstruction National Park



1ST ASIA PARKS CONGRESS
JAPAN 2013 | PARKS CONNECT

Areas under consideration
for reorganization.

(from Kabushima Island, Hachinohe
City, Aomori Pref. to Oshika Peninsula,
Onagawa Town, Ishinomaki City, Miyagi
Pref. and its surrounding Natural parks)



Ministry of the Environment



The First Asia Parks Congress: Report on the
Proceedings

13th-17th November 2013, Sendai, Japan





IUCN
WORLD PARKS
CONGRESS
SYDNEY 2014

Parks, people, planet: inspiring solutions

www.worldparkscongress.org

12-19 November 2014

Sydney, Australia



3RD WORLD CONFERENCE ON DISASTER RISK REDUCTION

14-18 MARCH 2015 / SENDAI JAPAN

UNISDR

PreventionWeb

Towards a post-2015 framework for **Disaster Risk Reduction**

BUILDING THE RESILIENCE OF NATIONS AND COMMUNITIES TO DISASTER

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Proposed Elements for Consideration in the Post-2015 Framework for Disaster Risk Reduction by the UN Special Representative of the Secretary-General (SRSG) for Disaster Risk Reduction



Ecosystem-based Solutions for Disaster Risk Reduction!



Goishikaigan Coast (Ofunato City)