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How are Decision on Eco-DRR taken in Indonesia? Preliminary Results from a Survey Carried out with National and Local Level Administrations

Fabrice Renaud (Unu-EHS) Syarifah Dalimunthe (LIPI) Riyanti Djalante (UNU-EHS) Gusti Ayu Ketut Surtiari (LIPI/UNU-EHS) Antoni Ros Martinez (UNU-EHS/UniBonn)

SNAP is a joint initiative of:







Ecosystem-based Disaster Risk Reduction



UNU-EHS

Ecosystem-based DRR is the sustainable management, conservation and restoration of ecosystems to reduce disaster risk, with the aim of achieving sustainable and resilient development

Source: Estrella & Saalisma (2013): Ecosystem-based disaster risk reduction (Eco-DRR): an overview. In: Renaud et al The Role of Ecosystems in

Ecosystems in the Hyogo Framework for Action 2005-2015



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- Priority for Action #4: Reduce the underlying risk factors
- 2 Relevant activities:
 - Environmental and natural resource management with components that include:
 - Sustainable use and management of ecosystems
 - Implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction
 - Land-use planning and other technical measures



World Conference on Disaster Reduction 18-22 January 2005, Kobe, Hyogo, Japan

Hyogo Framework for Action 2005-2015:*

Building the Resilience of Nations and Communities to Disasters

www.unisdr.org/wcdr

*Extract from the final report of the World Conference on Disaster Reduction (WCONF 2006)

International Strategy for Disaster Reduction







- Communiqué of Guayaquil, Ecuador, 2014
- Bangkok Declaration on Disaster Risk Reduction in Asia and the Pacific 2014
- Summary Statement Africa's Contribution To The Post-2015 Framework For Disaster Risk Reduction, 2014
- European Ministerial Meeting On Disaster Risk Reduction, 2014
- Sharm El Sheikh Declaration on Disaster Risk Reduction 2014
- Global Assessment Report on DRR 2015

- Conference of the Parties X of the CBD, 2010
- "Trends in human and economic losses due to water or natural resource related disasters" is one indicator under Aichi Target 14 of the CBD
- IUCN World Parks Congress' "Promise of Sydney"

Ecosystems in the Sendai Framework for DRR



- Preamble: §4-5, §6: Addressing underlying disaster risk drivers, §12, §14-15
- Expected outcome and goal:
 - Outcome §16: The substantial reduction of disaster risk and losses in (...) environmental assets
 - Goal §17: Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive (...) environmental measures
 - But no global target linked to the environment
- Guiding Principles
 - §19c: Protection of **environmental assets**
 - §19h: Policies linked to environmental management
- International cooperation: §46, 47b,d on multilateral and bilateral development assistance

Ecosystems in the Post-2015 framework for disaster risk reduction



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- Priorities for action:
 - Priority 1. Understanding disaster risk: environment mentioned in 4 paragraphs (§23, §24b,d,k)
 - Priority 2. **Strengthening [institutions]**: environment mentioned in 4 paragraphs (§29b,d, §28b,d)
 - Priority 3. Investing in disaster risk reduction for resilience: environment mentioned in 5 paragraphs (§29, §30c,f,g,n)
 - §30n: Strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction
 - Priority 4. Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction:
 - §33k: land use planning mentioned





Activity 1: Questionnaire survey

- Objective: understand how decisions on Eco-DRR are taken at the ministerial and local levels
- Long questionnaire: to ministries, national & local level government agencies
 - KLH, KKP, (Ministry of Forestry), (DNPI)...
 - BPBD Kendari City; Local Government Katingan District;
 DKP Central Java Province...
- Short questionnaire: to NGOs, academic institutions, UN, Bilateral/Multilateral Aid agencies





Activity 2: "Reverse Engineering"

- Two field sites (Demak, Cilacap)
- Start from project on the ground, talk to local communities, local leaders, local organisations, →
 Province level, → National level, → International level

> Activity 3: Review of main policy documents

Preliminary results Long Questionnaire_{1/3}



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- Various Agency have mandates directly or indirectly linked to DRR/CCA/Coastal Management
- Each Agency operates under specific laws, decrees, with some overlaps examples:
 - BPBD: Disaster Management Law 24/2007, Environmental Protection Law 32/2009, Law No 1 Year 2014: on coastal resources management
 - KLH: Law 32/2009 on the protection and management of the environment
 - KKP: Law 27/2007 on the management of CZSI, Presidential regulation 64/2010 on the mitigation of disasters in CZSI

Preliminary results Long Questionnaire_{2/3}



BPBD, KKP, KLH mention the role of ecosystem services in terms of DRR/CCA/CZM

- ➢ Barriers to Eco-DRR:
 - Laws in place but no enforcement (local level)
 - Need to understand better the buffering effect of ecosystems for DRR – difference between engineered structures and Eco-DRR
 - Lack of technical capacity
- > Opportunities:
 - Consider the additional services provided by ecosystems
 - Emphasise more cost effectiveness
 - Better communication on existing regulations
 - Link better scientific knowledge and policies

Preliminary results Long Questionnaire_{3/3}



- Local governments are very powerful in terms of decisionmaking but this is also where capacities are often lacking
- Some ministries are currently shifting from pilot implementation to full implementation of projects and activities in the future
- KKP is, so far with respect to answers received, the Ministry having the greatest emphasis on Eco-DRR in coastal areas
- The role of ecosystems is not systematically considered by respondents, in particularl at the local level
- Several pilot activities have been reported, very little on more systematized approaches
 - Exception: new Building with Nature programme of KKP and Dutch consortium
 - Most activities are carried out through international financing support

Preliminary results Legislation in Indonesia



Disaster Management Law No. 24/2007

- 85 articles over 30 pages. Environment:
 - Damage to the environment
 - Bringing disaster-affected environment to pre-disaster conditions
 - Environmental conservation part of DM (Articles 3, 31, 71)
 - Community obligation: (...) sustainability of environmental function
 - Prevention: (...) environmental management (Article 38)
 - Rehabilitation: (...) improvement to disaster area environment

Ecosystems in Major Policy Documents (Indonesia)_{1/4}



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- > National Disaster Management Plan (BNPB, 2010)
 - Coordinated government ministries, and agencies at the national level that have duties related to disaster management, to formulate the National Disaster Management Plan
 - National DM Plan refers to Law Number 32 Year 2009 on the Protection and Management of the Environment
 - For disasters related to the environment, BNPB works with the Ministry of the Environment, Ministry of Marine Affairs and Fishery and others
 - KKP plans and controls preventive efforts, advocacy and early warning in preventing environment-related disasters
 - Disaster prevention and mitigation:
 - Formulation of policies on environmental management that are risk sensitive
 - Monitoring and evaluation of regulations related to environmental/natural resource management that are risk sensitive

Ecosystems in Major Policy Documents (Indonesia)_{2/4}



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- National Action Plan for DRR 2010-2012 (BAPPENAS, 2010)
 - Environmental degradation recognized as one factor triggering hazard events (e.g. context of floods)
 - Environment intrinsically linked to spatial planning
 - The implementation of disaster mitigation shall be carried out in view of (....) preserving the environment
 - Environmental management is one of 33 activities listed in the NAP-DRR

Ecosystems in Major Policy Documents (Indonesia)_{3/4}



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> National Action Plan for DRR 2010-2012 (BAPPENAS, 2010)

- Some targets (not exhastive):
 - Improvement of coordination in relation to environmental recovery in the context of improving social resilience
 - Improvement of public preparedness against the problems related to environmental change
 - Organization of forest and land rehabilitation in 33 provinces
 - Mitigation of environmental damage impacts caused by oil spill in the coast or sea
 - Reduction of coastal abrasion impact in coastal area and critical land
 - Environmental conservation through conservation, rehabilitation and reconstruction activity in disaster prone areas
 - Cultivation of green belts for tsunami mitigation in 17 locations
 - Development of land cover data as the basic information for disaster reduction
 - Restoration of mangrove, sea grass area and coral reef ecosystems
 - Development of an Environmental Sensitivity Index
 - Restoration of mangrove, sea grass area and coral reef ecosystem

Ecosystems in Major Policy Documents (Indonesia)4/4



> National Action Plan for CCA - RAN-API (RI, 2013: synthesis report)

- RAN-API is a national action plan document on adaptation to the impacts of climate change, which involves integrated coordination among all the stakeholders
 - Part of Indonesia's national development framework
- The impact of climate change will increase dry seasons, floods, frequency of extreme climate events, affecting (...) biodiversity
- The largest threats of climate change are: increase of sea surface temperature, changes in the intensity and patterns of rainfalls, and SLR
- One of the strategic objective is to (...) maintain the sustainability of environmental services (ecosystem resilience):
 - Decreased area of damaged natural terrestrial and marine ecosystems due to climate change
 - Increased quantity and quality of coral reefs and forest cover in the priority river basin areas
 - Decreased threat level of key species
 - System for ecosystem resilience is developed
 - Also mentioned: Environment and ecosystem is managed and utilized for climate change adaptation





- Recieve and analyse all questionnaires
- Map the role of agencies (international, national, Provincial/Local)
- Cross check with the reverse engineering results (which actors involved, chronology of events, consultation processes....)
- Superimpose the existing policies
- If warranted, make a proposal for the systematic consideration of Eco-DRR in decision-making





UNU-EHS

UNITED NATIONS UNIVERSITY

Institute for Environment and Human Security (UNU-EHS)

Platz der Vereinten Nationen 1 53113 Bonn, Germany

e-mail: renaud@ehs.unu.edu www.ehs.unu.edu