

NbS in the Philippine Context: An Overview



Presented by:

Albert A. Magalang

Climate Change Service

Department of Environment and Natural Resources

The Philippines

Outline

A. What are Nature-based Solutions

B. NbS frameworks:

1. Study on the IPCC Special Report on Global Warming of 1.5°C to Priority Programs of the Department of Environment and Natural Resources (DENR)
2. DENR's COVID-19 Green Response, Recovery and Resilience Programs
3. Sectoral Plans (ex. Philippine Biodiversity Strategy and Action Plan (PBSAP) (2015 – 2028); Philippine Master Plan for Climate Resilient Forestry Development (2016))

C. NbS in the NDC of the Environment and Natural Resources Sector

D. Global Initiatives

What are nature-based solutions (NbS)?



Nature-based Solutions as an umbrella term and conceptual framework for ecosystem-related approaches

Measures to protect and sustainably manage our ecosystems (nature) in order for them to be able to address people's needs and ensure their well-being.

Features of Nature-based solutions

- **NbS are designed to address major social issues such as:**
 - food security
 - climate change
 - water security
 - human health
 - disaster risk
 - social and economic development.
- **Compared to technology-based solutions to climate risks, NbS**
 - are often lower cost
 - longer lasting
 - have multiple synergistic benefits for a variety of sectors and political goals

Examples of Nature-based Solutions

Urban Ecosystem-based Adaptation (EbA)



Urban forest

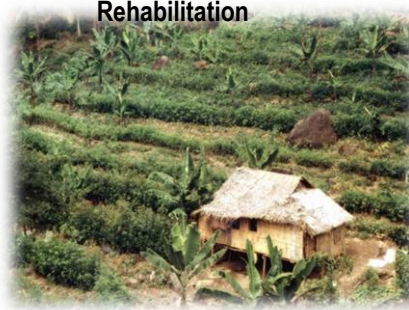


Roof/vertical gardens

Green infrastructure

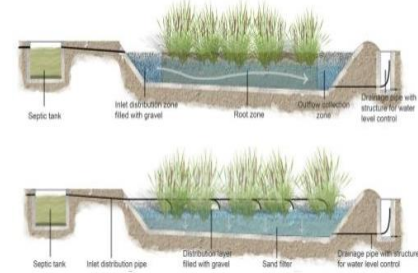


Mangrove Rehabilitation



Slope stabilization

Ecosystem-based Mitigation



Constructed Wetlands

Forest landscape restoration



NbS Frameworks

- A.1 Study on the Implications of the IPCC Special Report on Global Warming of 1.5°C to the Priority Programs
- A.2 DENR's COVID-19 Green Response, Recovery and Resilience Programs.
- A.3 Sectoral Plans (ex. Philippine Biodiversity Strategy and Action Plan (PBSAP) (2015 – 2028); Philippine Master Plan for Climate Resilient Forestry Development (2016))

A.1 Study on the Implications of the IPCC Special Report on Global Warming of 1.5°C to the ENR Priority Programs

- Establish ecosystems and watershed observation networks
- Develop decision support systems
- Conduct empirical and modelling studies of climate change impacts
- Formulate clear and simple guidelines that outline the process of conducting multiple risks and vulnerability assessments
- Integrate and harmonize plans and programs through multi-agency/multi-stakeholder collaboration and use of landscape and seascape or other related approaches
- Institutionalize a robust system for developing climate-responsive policies and programs

A.2 COVID-19 Green Response, Recovery and Resilience Programs

- Framework for Assessing COVID-19 and Environment and Natural Resources Nexus
 - map or chart the two-way interactions of COVID-19 with ENR Households (ENRH), ENR Management (ENRM), and Climate Change Adaptation and Mitigation/ Disaster Risk Reduction and Management (CCAM/DRRM)
 - more structured and systematic ways, more focused strategic programs for Response, Recovery and Resilience (RRR) of the ENR Sector
- Layout of the strategies and programs as a result of the Interaction Impact Matrix
- Identify the specific programs of immediate concerns

A.3 Sectoral Plans

Philippine Biodiversity Strategy and Action Plan (2015 – 2028)

NbS-related targets:

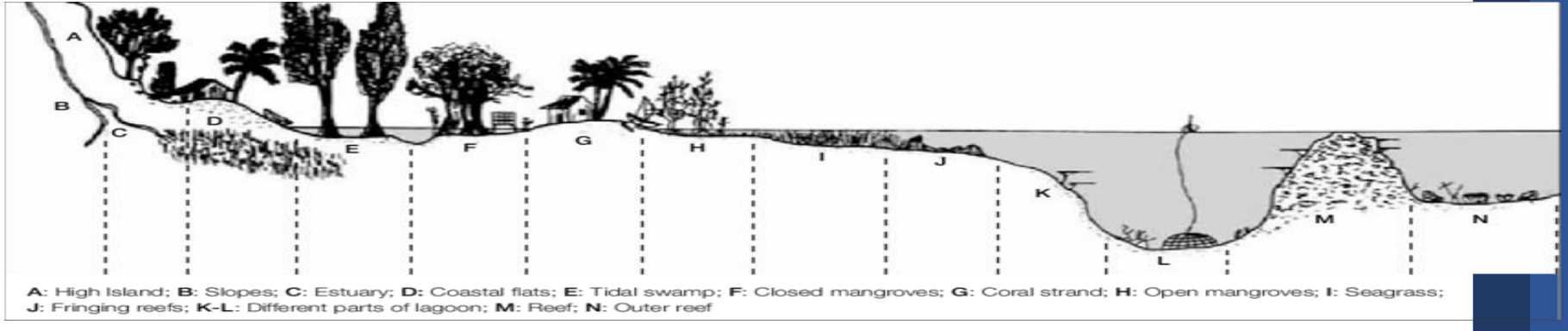
By 2028:

- There will be no net loss in presence and area distribution of live coral cover, mangrove, and seagrassess
- There will be no net losses in natural forest cover
- The will be 5% increase in the proportion of green spaces in the fiver largest cities
- Ecosystem services provided by key biodiversity areas will be enhanced
- 1 million ha of degraded ecosystems will be restored and/or will be under various stages of restoration
- there will be a 20% increase from 2015 levels in the coverage of established MPAs/sanctuaries across various aquatic habitats.

Philippine Master Plan for Climate Resilient Forestry Development

- Programs to strengthen resilience of forest ecosystems and communities
i.e ecosystem-based vulnerability assessment, management of protection forests and protected areas, protection of existing forests, rehabilitation and conservation of mangroves, formulation of integrated watershed management and forest land use plans
- Programs to respond to demands for forest ecosystems goods and services
i.e. delineation and demarcation of forest management zones, commercial forest plantation development for round wood production

NbS-related priorities from the NDC Adaptation measures (DENR submission)



Reducing Emissions from Deforestation and Forest Degradation-Plus (REDD+)

Greening of Industrial and Economic Zones

Constructed Wetlands

Coastal and Marine Ecosystem Management Program

Protected Area Development and Management

Reducing Emissions from Deforestation and Forest Degradation- Plus (REDD+)

Greening of Industrial
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Constructed
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Coastal and Marine
Ecosystem
Management
Program

- Sustainable management of forests for both reduced carbon emissions and biodiversity conservation
- Integration of ecosystem-based adaptation (EbA) in the forestry sector particularly, in the planning and decision-making processes and capacity building programs

Reducing Emissions
from Deforestation and
Forest Degradation-
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Greening of
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Focus on the application of green infrastructure and nature-based solutions through the following measures:

- provision of natural wastewater treatment
- efficient rainwater collection,
- water recycling,
- tree plantation/mini-forest,
- sustainable urban drainage,
- green roofs, vertical gardens,
- use of renewable energy sources,
- reduced energy demand through energy efficient technologies and,
- sustainable and efficient transport

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- Establishment of an artificial wetland that can support treatment of discharges such as wastewater, storm water runoff, or sewage treatment.
- Improvement of water quality with filtration properties and nutrient removal, facilitates flood management and drought protection.

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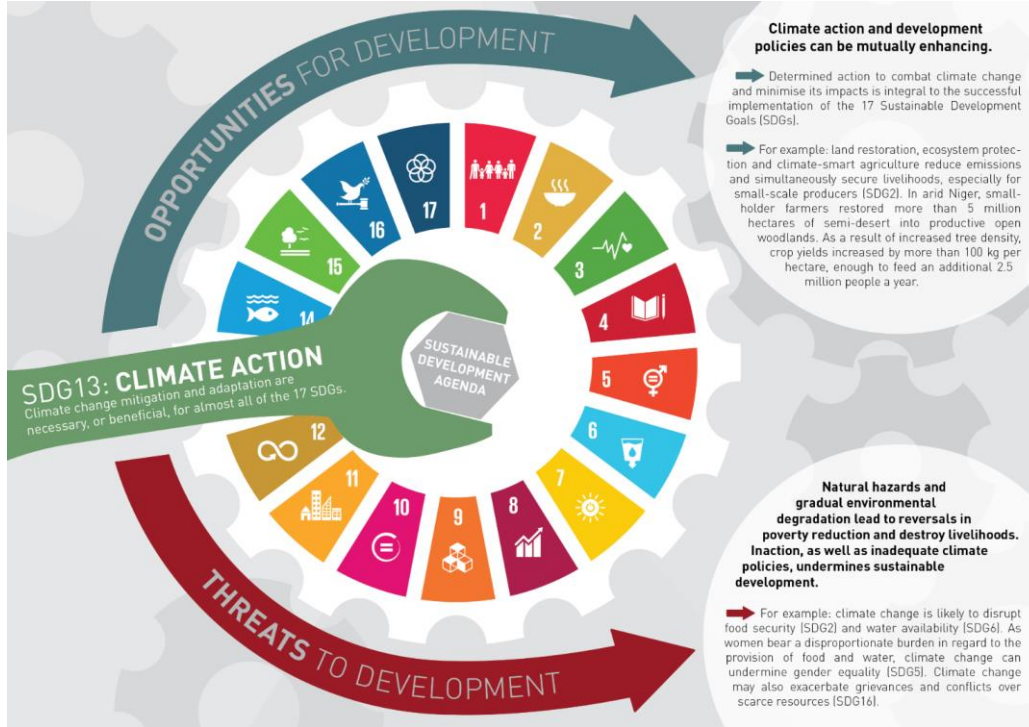
Effective management of the country's coastal and marine ecosystems thereby increasing their ability to provide ecological goods and services to improve the quality of life of the coastal population particularly ensuring food security, climate change resilience and disaster risk reduction through the following:

- Establishment and strengthening of marine protected areas
- Development of biodiversity-friendly and social enterprise
- Capacity building
- Technical assistance
- Knowledge management
- Social marketing and mobilization
- Monitoring and evaluation

Protected Area Development and Management

- Ensures to retain and prioritize those with high biodiversity values while providing appropriate governance regime for the protection of Key Biodiversity Areas (KBAs) such as through Local Conservation Areas (LCAs) with the LGU concerned and through Indigenous Community Conserved Areas (ICCAs) to ensure that the ecosystem services they provide are sustained or improved making vulnerable communities dependent on them become more resilient and adaptive.
- Ensures the management and protection of other ecosystems including wetlands, caves, critical habitats and associated ecosystems

Global Framework



Relevant Aichi Biodiversity Targets:



Biodiversity values integrated



Habitat loss halved or reduced



Ecosystems vulnerable to climate change



Ecosystem services



Ecosystem restoration and resilience



Biodiversity strategies and action plans

Examples of Global NbS Efforts:

Ocean 30x30:

Strong protection of at least 30% of the Ocean is needed by 2030 (30x30) to build the resilience of ocean life to adapt to climate change and buffer it from other threats like overfishing

Leaders' Pledge for Nature

Step up global ambition and encourage others to match their collective ambition for nature, climate and people with the scale of the crisis at hand to reverse biodiversity loss by 2030

"Ecosystem-based Adaptation in 2 River Basins" (E2RB)

- DENR-GIZ partnership
- To secure drinking water access for 500 households and irrigation to 3,000 hectares of agricultural land in Negros and Davao region.
- Will strengthen the river basins' ecosystem services, protect their biodiversity, and important, reduce their vulnerability to climate change as destructive flooding have been experienced in the river basins
- 20 municipalities around the river basins will be able to reduce their vulnerability to climate change with improved biodiversity protection (from landslide, flood risk in four watersheds reduced by 10 percent).



Thank you.