



**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
**KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN**

**NOTICE OF MEETING**

**FOR :** **The Directors**  
Biodiversity Management Bureau (BMB)  
Ecosystems Research and Development Bureau (ERDB)  
Environmental Management Bureau (EMB)  
Foreign-Assisted and Special Projects Service (FASPS)  
Forest Management Bureau (FMB)  
Land Management Bureau (LMB)  
Policy and Planning Service (PPS)  
Climate Change Service (CCS)

**Bureau/Office Focal Persons for the Climate-Resilient Cities Project**

**FROM :** **The Director**  
Climate Change Service

**SUBJECT :** **INVITATION FOR A MEETING WITH CLIMATE-RESILIENT CITIES PROJECT (NATURAL CLIMATE SOLUTIONS COMPONENT) THROUGH THE CONSERVATION INTERNATIONAL REGARDING THE LIST OF DENR PROGRAMS AND PROJECTS RELATED TO NATURE-BASED SOLUTIONS**

**DATE :** 11 September 2023

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In line with the United States Agency for International Development (USAID) Climate Resilient Cities (CRC) Project<sup>1</sup>, and as a follow-up activity of the meeting<sup>2</sup> conducted on July 7, 2023, we invite you or your duly authorized representatives for a meeting (see Activity Briefer<sup>3</sup>) on **21 September 2023, 9:00 AM to 11:00AM** at the **FMB Conference Room (1st Floor)**.

Kindly confirm your attendance through the attached Confirmation Slip (Annex A) to the DENR Climate Change Service at 8928-1194 or email [ccs@denr.gov.ph](mailto:ccs@denr.gov.ph) (cc Ms. Cheryl Ventura, CI National Coordinator, at [cventura@conservation.org](mailto:cventura@conservation.org)) by Tuesday, 19 September 2023.

  
**ELENIDA DEL ROSARIO BASUG**

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<sup>1</sup> a five-year technical assistance program that will help the cities in the Philippines to adapt, mitigate, and endure the impacts of climate change by increasing their access to climate financing and tools to build resilience

<sup>2</sup> July 7 Meeting Minutes Link: <https://tinyurl.com/July7MinutesCRCNCS>

<sup>3</sup> September 21 Activity Briefer Link: <https://tinyurl.com/ActvtyBrfrNCSPPS>

**MEETING WITH CLIMATE-RESILIENT CITIES PROJECT (NATURAL CLIMATE SOLUTIONS COMPONENT) THROUGH THE CONSERVATION INTERNATIONAL REGARDING THE LIST OF DENR PROGRAMS AND PROJECTS RELATED TO NATURE-BASED SOLUTIONS**

Thursday, 21 September 2023, 9-11:00 AM  
FMB Conference Room (1st Floor)

**CONFIRMATION SLIP**

Name of Agency/Office: \_\_\_\_\_

This is to confirm the attendance of the following to the above-mentioned meeting:

NAME	POSITION	E-MAIL ADDRESS	MOBILE NUMBER
1.			
2.			
3.			
4.			
5.			

Noted by:

\_\_\_\_\_



**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
**KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN**

**MEETING WITH CLIMATE-RESILIENT CITIES PROJECT (NATURAL CLIMATE SOLUTIONS COMPONENT) THROUGH THE CONSERVATION INTERNATIONAL REGARDING THE LIST OF DENR PROGRAMS AND PROJECTS RELATED TO NATURE-BASED SOLUTIONS**

**ACTIVITY BRIEFER**

Date and Time	September 21, 2023   9:00 – 11:00 AM
Venue	FMB Conference Room (1st Floor)
Objective/s	<p>This meeting serves as a continuing engagement between DENR (Climate Change Service, Policy and Planning Service, Foreign-Assisted and Special Projects Service and concerned Bureaus) and Conservation International on the USAID Climate Resilient Cities (CRC) Project. Specifically, to discuss the list of <u>DENR Programs and Projects related to Nature-Based Solutions</u><sup>1</sup> as provided by the Policy and Planning Service.</p> <p>The CRC team through CI would like to determine which ones to review based on status of the aforementioned programs/projects --- those in draft forms, under drafting stage, and at zero stage. This will help to pragmatically select (in the order of priorities as well by DENR) the items, collate the documents needed, and define the review protocol to follow.</p>
Background	<p>The USAID Climate Resilient Cities is a five-year technical assistance program that will help the cities in the Philippines adapt to, mitigate, and endure the impacts of climate change by increasing their access to climate financing and tools to build resilience.</p> <p>Updates:</p> <ul style="list-style-type: none"><li>● NCS Policy Presentation / CRC Project Overview Meeting<ul style="list-style-type: none"><li>○ Date: May 17, 2022</li><li>○ Venue: DENR OSEC</li><li>○ Conservation International headed by Mr. Wilbur Dee presented the National Climate Solutions Roadshow to introduce the Climate Resilient Cities Project. The said project aims to improve resilience by strengthening the adaptive capacities of Philippine cities to adapt to, mitigate, and manage the impacts of climate change and disasters. Initially, their target geographic scope are Batangas, Legazpi, Borongan, Iloilo, Cotabato and Zamboanga.</li></ul></li></ul>

<sup>1</sup> Link: <https://tinyurl.com/ListPPSNBS>



**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
**KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN**

- Workshop with Technical Staff on Natural Climate Solutions (NCS) For USAID Climate Resilient Cities (CRC) Project
  - Date: May 31, 2022
  - Venue: FMB Conference Room
  - To ensure that there is a more programmatic approach for technical assistance to be provided by the CRC Project to the DENR on NCS, the Conservation International facilitated a technical workshop for the following Bureaus/Offices - CCS, BMB, ERDB, EMB, FASPS, FMB, LMB and PPS. Each representative delivered a 7-minute presentation containing the NCS or Ecosystem-based Adaptation (EbA) policies and projects that their office is implementing or proposing in the next 5 years.
  - Workshop Output<sup>2</sup>
  - CCS Presentation<sup>3</sup>
- Meeting on Natural Climate Solutions (NCS) for USAID Climate Resilient Cities (CRC) Project
  - Date: July 7, 2023
  - Venue: FMB Conference Room
  - To discuss the updates on Outcome 3 Activities under the Natural Climate Solutions of the Climate Resilience Cities Project.
  - Meeting Minutes<sup>4</sup>

**List of Attendees**

Representatives from

1. Climate Change Service (CCS)
2. Foreign-assisted and Special Projects Service (FASPS)
3. Policy and Planning Service (PPS)
4. Forest Management Bureau (FMB)
5. Biodiversity Management Bureau (BMB)
6. Ecosystems Research and Development Bureau (ERDB)
7. Lands Management Bureau (LMB)
8. Environment Management Bureau (EMB)

**Proposed Agenda**

Time	Activity	Lead
9:00 AM - 9:15 AM	Registration of Participants Opening Program   Acknowledgment of	DENR CCS/CI

<sup>2</sup> Link: <https://tinyurl.com/NCSWshopOutput>

<sup>3</sup> Link: <https://tinyurl.com/CCSpptNCS>

<sup>4</sup> Link: <https://tinyurl.com/July7MinutesCRCNCS>



**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
**KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN**

	participants Program Rationale	
9:15 AM - 9:30 AM	Updates on the CRC Project	CI
9:30 AM - 10:30 AM	Discussion on the list of <u>DENR Programs and Projects related to Nature-Based Solutions<sup>5</sup></u> as provided by the Policy and Planning Service  Review based on the status of the programs/projects — those in draft forms, under drafting stage, and at zero stage.	CI, DENR PPS and concerned Bureaus
10:30 AM - 10:45 AM	Break / AM Snacks	
10:45 AM - 11:00 AM	Next Steps / Ways Forward	CI, DENR CCS
<b>Contact Person</b>	<b>DENR Climate Change Service</b> <ul style="list-style-type: none"> <li>• Raquel Ortega <a href="mailto:rsortega@denr.gov.ph">rsortega@denr.gov.ph</a></li> <li>• Joan Frances Laborte <a href="mailto:jfflores@denr.gov.ph">jfflores@denr.gov.ph</a></li> <li>• Jeffrey Santos <a href="mailto:jdsantos@denr.gov.ph">jdsantos@denr.gov.ph</a></li> </ul> <b>DENR FASPS</b> <ul style="list-style-type: none"> <li>• Conrad A. Bravante Jr. <a href="mailto:cabravantejr@denr.gov.ph">cabravantejr@denr.gov.ph</a></li> </ul> <b>Conservation International</b> <ul style="list-style-type: none"> <li>• Cheryl Ventura, National Coordinator <a href="mailto:cventura@conservation.org">cventura@conservation.org</a> +639088874406</li> </ul>	
<b>ATTACHMENTS</b>	<u>Letter from Conservation International re Meeting Request September 21, 2023 Notice of Meeting</u>	

<sup>5</sup> Link: <https://tinyurl.com/ListPPSNBS>



Republic of the Philippines  
Department of Environment and Natural Resources  
Visayas Avenue, Diliman, Quezon City 1100  
Trunkline: (+632) 929-6626 / 929-6635 / 929-4028 / 929-4028  
E-mail: [web@denr.gov.ph](mailto:web@denr.gov.ph) / Website: <http://www.denr.gov.ph>

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**MEMORANDUM**

FOR : **The Director**  
Climate Change Service

FROM : **The OIC, Director**  
Policy and Planning Service

SUBJECT : **LIST OF PROGRAMS AND PROJECTS RELATED TO  
NATURE-BASED SOLUTIONS**

DATE : 15 AUG 2023

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With reference to the agreements during the Meeting on Natural Climate Solutions (NSC) Climate Resilient Cities Project held on 7 July 2023 at the FMB Conference Room, we are providing you herewith the list of Programs and Projects that are related to Nature-based Solutions.

The tagging of the activities indicated was based on the presentation of Assistant Secretary Noralene Uy at the Brown Bag Session on Nature-Based Solutions (NBS) for Climate and Disaster Resilience on 6 July 2023.

For information and reference.

  
CHERYL LOISE T. LEAL, EnP.



Republic of the Philippines  
 Department of Environment and Natural Resources  
 Visayas Avenue, Diliman, Quezon City 1100  
 Trunkline: (+632) 929-6626 / 929-6635 / 929-4028 / 929-4028  
 E-mail: [web@denr.gov.ph](mailto:web@denr.gov.ph) / Website: <http://www.denr.gov.ph>

<b>NBS Measure</b>	<b>Program</b>	<b>Activity</b>
Reforestation/Agroforestry/Watershed management	Forest Development, Rehabilitation, and Maintenance and Protection	National Greening Program
Alternative livelihood	Protected Area Development and Management	Biodiversity-Friendly Enterprise (BDFE),
Sustainable Management – Zoning, Watershed Management	<p>Natural Resources Management Arrangement and Permit Issuance</p> <p>Soil Conservation, Watershed Management including River Basin Management and Development</p> <p>Protected Areas, Caves, and Wetlands Development and Management - Scaling up Coastal and Marine Management</p>	<p>Delineation of Production Forest for Potential Investment</p> <p>Formulation of Integrated Watershed Management Plans</p> <p>Delineation and Demarcation of Boundaries in Legislated PAs, Formulation of Protected Area Management Plans</p>
Mangrove, salt marsh, wetland restoration	Scaling up Coastal and Marine Management	Mangrove Enrichment
Restoration of reefs	Scaling up Coastal and Marine Management	<p>Water quality monitoring</p> <p>Active rehabilitation of corals</p>
Bush control	Natural Resources Management Arrangement and Permit Issuance – Forest Protection	Establishment of firelines
Removal of invasive species	<p>Protection and Conservation of Wildlife</p> <p>Scaling up Coastal and Marine Management</p>	Direct activities conducted - Crown-of-thorns starfish population control, implementation of the National Invasive Species Strategy and Action Plan
Urban green areas	Protected Areas, Caves, and Wetlands Development and Management	Identification of urban green spaces in cities, Urban biodiversity assessment and profiling, Urban biodiversity management planning and implementation

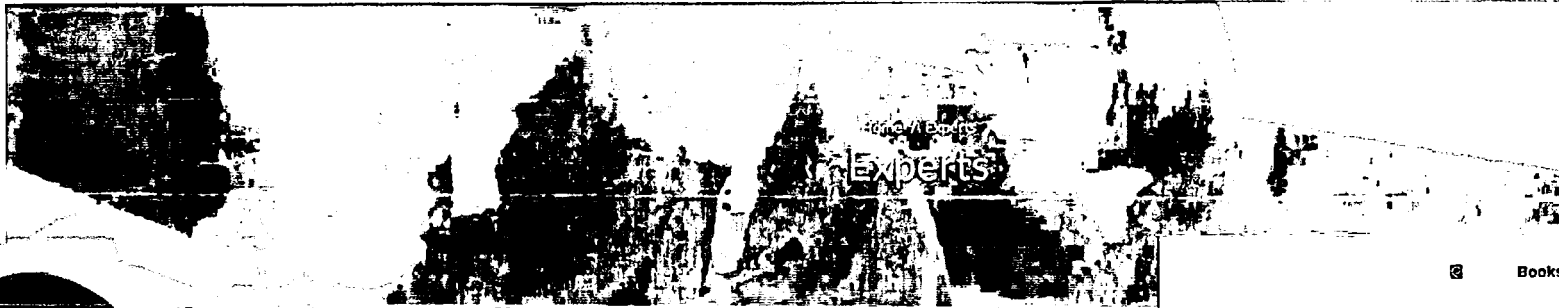


NATURE-BASED SOLUTIONS  
for  
Climate and Disaster  
Resilience

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Books

Search by Name



Area of Expertise



Country

Community, Environment and Disaster Risk Management  
Volume 12

### Ecosystem-Based Adaptation

Edited by  
M. J. R. ...

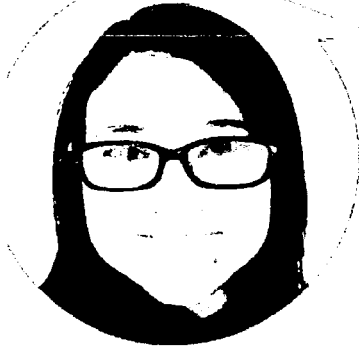


**Dr. Noralene Uy**

Email: [noralene@gmail.com](mailto:noralene@gmail.com)

Area of Expertise: Ecosystem-based disaster risk reduction, Ecosystem-based adaptation, Environmental policies, environmental governance, Ecosystem management / natural resources management, Disaster risk reduction policies, risk governance, risk management, Disaster risk quantification, risk assessments/ vulnerability assessments/ hazard assessments

Region or Country: Global scale



**DR. NORALENE UY**

Office of the Secretary, DENR

# OUTLINE

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01

OVERVIEW

02

PRINCIPLES AND  
GLOBAL STANDARD  
FOR NbS

03

ENABLERS &  
BARRIERS

04

KNOWLEDGE  
GAPS

05

WHERE WE  
STAND ON NbS

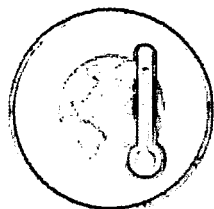




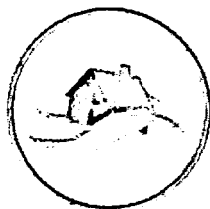
# Nature-based Solutions (NBS)

**“actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits” (IUCN)**

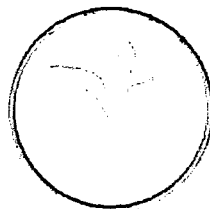
# Nature offers multiple solutions to societal challenges



Climate change mitigation and adaptation



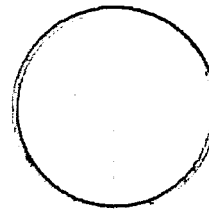
Disaster risk reduction



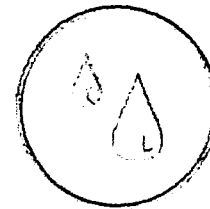
Economic and social development



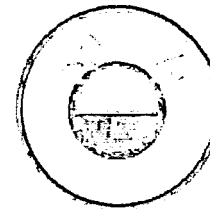
Human health



Food security



Water security

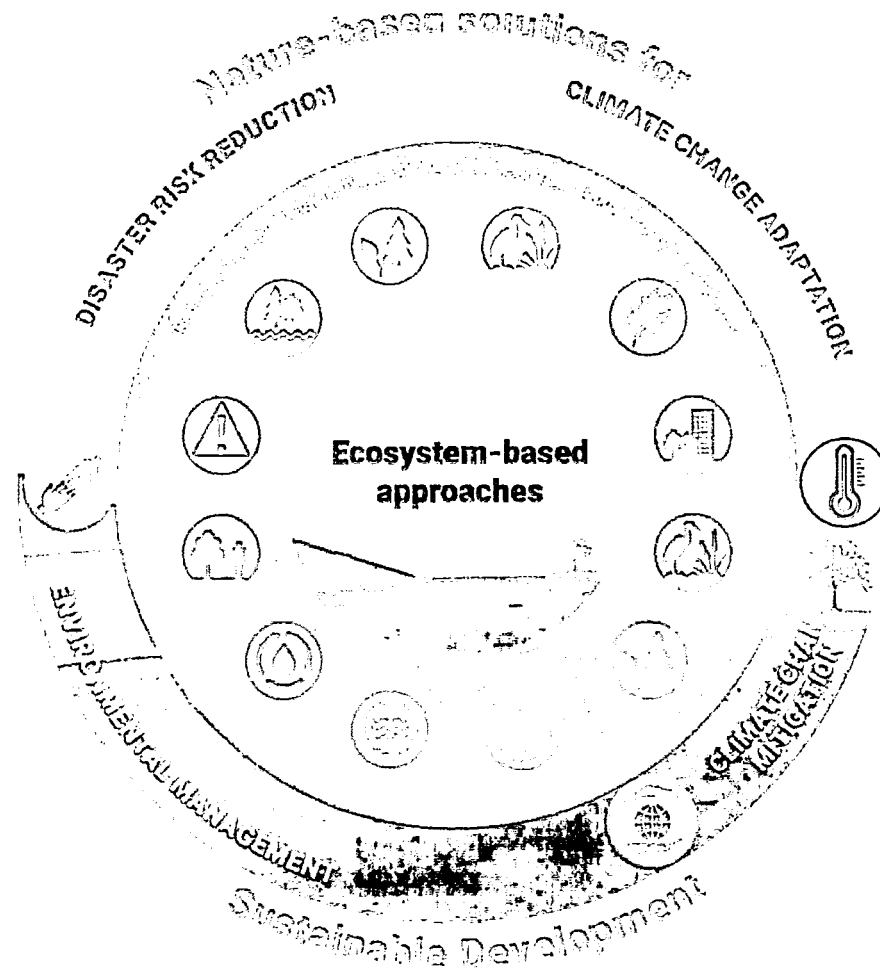


Environmental degradation and biodiversity loss

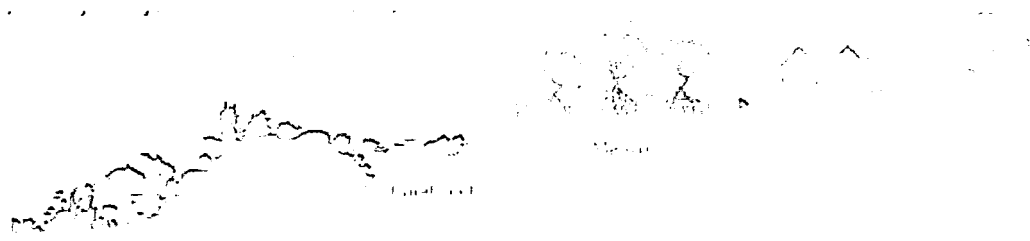


Source: IUCN (2020). *Global Standard for Nature-based Solutions. A user-friendly framework for the verification, design and scaling up of NbS*. First edition. Gland, Switzerland: IUCN.

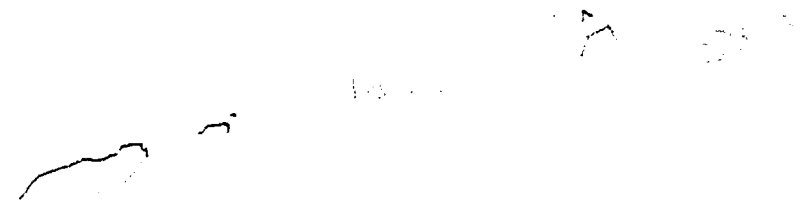
- 1. Ecosystem-based disaster risk reduction
- 2. Ecosystem-based climate change adaptation
- 3. Ecosystem-based disaster risk reduction and climate change adaptation
- 4. Ecosystem-based disaster risk reduction and climate change adaptation
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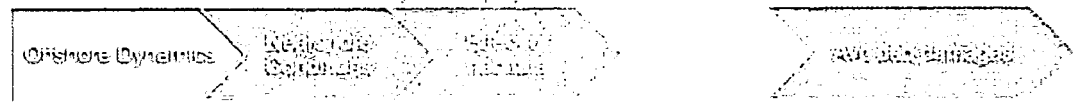
Source: UNDRR. (2021). Nature-based Solutions for Disaster Risk Reduction. Word Into Action. Geneva: UNDRR



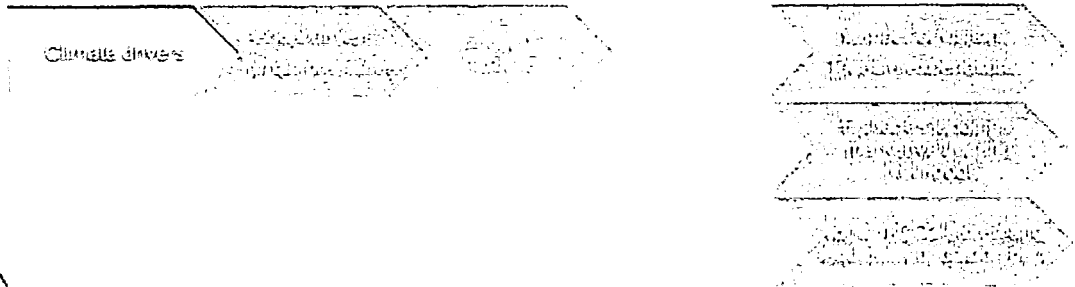
B) Degraded ecosystems



C) Risk reduction service



D) Other Ecosystem services










Source: Ruckelshaus, M. et al. (2020). Harnessing new data technologies for nature-based solutions in assessing and managing risk in coastal zones. *International Journal of Disaster Risk Reduction* 51. 101795.

NbS as an  
 output under  
 the Philippine  
 NDRRMP  
 2020-2030  
 (DENR as  
 lead)

Output	Activities	2020-2022	2023-2025	2026-2030
6.1 Nature-based solutions	6.1.1 Conduct natural resources and ecosystem accounting, valuation, stocktaking, inventory and assessment	x	x	x
	6.1.2 Conduct carrying capacity studies and research on terrestrial, coastal, and marine habitats and resources	x	x	x
	6.1.3 Mainstream ecosystem values into national and local development planning, including ecosystem services indicators, monitoring systems and databases	x	x	x
	6.1.4 Protect intact habitats, restore and rehabilitate degraded ecosystems/habitats (e.g., mangroves, wetlands, forest, coral reefs), and improve urban green spaces	x	x	x
	6.1.5 Promote sustainable integrated area development, and participatory environmental governance	x	x	x
	6.1.6 Promote sustainable community resource-based enterprises and livelihood programs	x	x	x
	6.1.7 Formulate and implement the Integrated River Basin Management and Development Plan	x	x	x

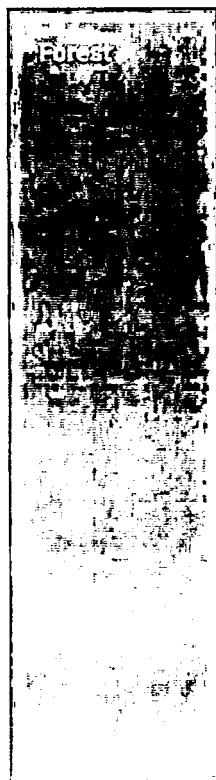


	restoration	Planting
		Protection zones
		Hydrology amelioration
	Restoration of reefs	Coral nurseries
		Coral transplant
		Artificial reef creation
	Managed realignment	Hydrology amelioration
		Replacing defense further away from coast
	Sustainable resource use/fisheries	No-take areas,
		Zoning
		Education / awareness raising
	Integrated coastal zone management	Use of a combination of approaches ideally in partnership with local communities
	Conservation	Creation and management of protected area(s)
	Alternative livelihoods	Ecotourism, honey production, etc.
	Sand management	Beach nourishment
		Dune rehabilitation
		Artificial dune construction
	Watershed management	Upstream management to protect water quality (see Forest/Agriculture/Slopes)





# Examples of NBS measures and interventions per ecosystem type



## NBS MEASURE

**Reforestation**

## SPECIFIC INTERVENTIONS

**Nurseries**

**Planting**



**Alternative livelihoods**

**Use of manure instead of firewood, ecotourism, etc.**



**Agroforestry**

**Intercropping**

**Alley or strip cropping**

**Shade systems**

**Crop diversification**

**Soil and water management**

**Sustainable management**

**Zoning**

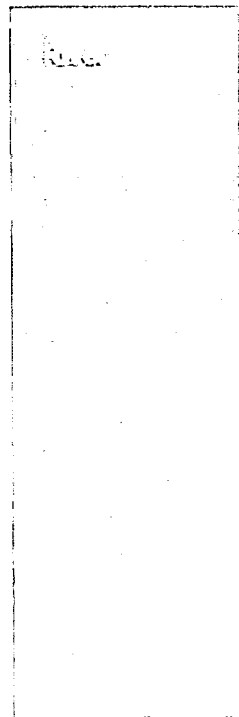
**Use of a combination of approaches ideally in partnership with local communities**



**Conservation**





**Creation and management of protected area(s)**

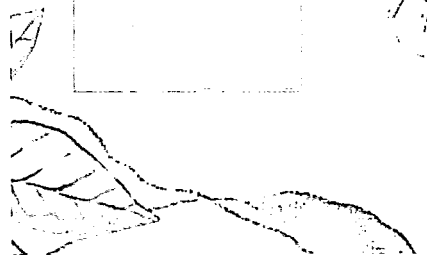




**NBS MEASURE**

**SPECIFIC INTERVENTIONS**

	<p><b>Living weirs</b></p>	<p><b>Bamboo or log grids across river with biodegradable sacks containing elements for soil</b></p> <hr/> <p><b>Planting and natural regeneration of stabilizing plants on the river bank whose roots will also colonize the bamboo/log grid.</b></p>
	<p><b>Watershed management</b></p>	<p><b>Use of a combination of approaches at the watershed scale through integrated water resource management, ideally in partnership with local communities</b></p>
	<p><b>Renaturation</b></p>	<p><b>Recreating natural river forms</b></p> <hr/> <p><b>Planting vegetation</b></p>
	<p><b>Removal invasive species</b></p>	<p><b>Removal of species</b></p>
	<p><b>Conservation</b></p>	<p><b>Creation and management of protected area(s)</b></p>



**Wetland**

**NBS MEASURE**

**SPECIFIC INTERVENTIONS**



**Conservation**

**Creation and management of protected area(s)**



**Restoration**

**Hydrological landscape shaping**

**Planting**

**Removal invasive species**

**Removal of species**



**Sustainable resource management**

**Use of a combination of approaches, ideally in partnership with local communities**



Nurseries

Mixed farming

Intercropping

Integrated nutrient management

For e.g. using nitrogen-fixing species

Rainwater harvesting

Collect rainwater

Community gardens

Creation of community gardens and biomanure

Agroforestry

See Forests

Ecological pest management

Use local species to manage pests (e.g. ducks in vineyards)

Soil practices

Terracing

Conservation tillage

Indigenous practices

Irrigation



Sustainable agriculture/husbandry

Creation of protected zones

Rotation

Alternative livelihoods

Ecotourism, etc.



Revegetation

Planting of areas on degraded land





NBS MEASURE

SPECIFIC INTERVENTIONS

Revegetation

Nurseries



Planting and natural regeneration

Conservation

Creation of protected zones



Bush control

Fire management regimes



Sustainable grazing management

Use of a combination of approaches, ideally in partnership with local communities

Zoning

Removal invasive species

Removal of species

