HOW TO ENSURE A RESILIENT GLOBAL BIODIVERSITY FRAMEWORK TO DISASTER AND CLIMATE RISKS?

20 JANUARY 2022 | 16:00 CET

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SPEAKERS

Marisol ESTRELLA
Programme Coordinator for Disaster Risk Reduction, Disasters and Conflicts Branch, UNEP

Sonia PEÑA MORENO
Director of the International Policy Centre, IUCN

Takashi MIZUSHINA
First Secretary, Permanent Mission of Japan to the International Organizations in Geneva

Huw BEYNON
Deputy Chief, UNDRR New York Liaison Office

Sandeep SENGUPTA
Global Coordinator of Climate Change Portfolio, IUCN

Verónica RUIZ
Programme Officer, Nature-based Solutions, IUCN

Nathalie DOSWALD
Moderator | Coordinator of the PEDRR Secretariat
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Opening Remarks
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Q&A

PEDRR-FEBA Recommendations
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Takashi MIZUSHINA

First Secretary, Permanent Mission of Japan to the International Organizations in Geneva
Japan and Eco Disaster Risk Reduction

Takashi MIZUSHINA
First secretary
Permanent Mission of Japan to the International Organizations in Geneva
• Traditional approach: Living in harmony with nature
  *e.g. costal forests* -> *high tides, blown sand*
  *terraced paddy-fields* -> *floods*

• Policies after the Great East Japan Earthquake of 2011 - Importance of nature-based approach
1. Protection of natural sites as DRR measures

- Landslides
- Tidal waves, sea winds

**Forests**

**Wetlands** (incl. Ramsar sites)

*Kushiro-shitsugen* (natural reservoir): may reduce the river flow by approx. 30% during floods.

*Watarase-yusuichi* (retarding basin): prevented Tokyo from flood damages during the typhoon 2019.
2. Information & Knowledge sharing

“Potential Maps” in addition to “Hazard Maps”

“Handbook on Ecosystem-based DRR in Japan” by the Ministry of the Environment

Eco DRR Handbook Japan
Thank you!

Further information on:
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Nathalie DOSWALD

Moderator | Coordinator of the PEDRR Secretariat
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Sandeep SENGUPTA
Global Coordinator of Climate Change Portfolio, IUCN
Recognition of nature and ecosystems in the global climate regime

Dr. Sandeep Sengupta
Global Coordinator, IUCN Climate Change Portfolio

20 January 2022
Historically, there has been a strong recognition of the importance of ecosystems within the UNFCCC/Paris Agreement.

**UNFCCC (1992)**

- **Objective**: calls for stabilization of GHG concentrations within a time frame sufficient to allow ecosystems to adapt naturally

- **Article 4.1 (d)**: Asks all Parties to promote the conservation and enhancement of GHG sinks and reservoirs, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems

**Paris Agreement (2015)**

- **Preamble**: Notes importance of ensuring the integrity of all ecosystems, including oceans and the protection of biodiversity

- Recognizes the importance of the conservation and enhancement of GHG sinks and reservoirs referred to in the UNFCCC

- **Article 4 (Net Zero)**; **Article 5 (REDD+)**; **Article 7 (Adaptation)**; **Article 8 (Loss and Damage)
Growing convergence of the biodiversity-climate agendas, particularly through Nature-based Solutions
What are Nature-based Solutions (NbS)?

Nature-based Solutions are: “actions to protect, sustainably manage and restore natural or modified ecosystems, that address societal challenges (e.g. climate change, food and water security or natural disasters) effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”

- Definition adopted by 1,400+ IUCN members (states, government agencies, international/national NGOs and IPOs) at the 2016 IUCN World Conservation Congress (Resolution 69)
- Represents the most widely-used definition globally
- Rooted in the Ecosystem Approach of the CBD
- Cited by IPCC and IPBES in 2021
- Cited in 2000+ peer reviewed articles in recent years
- Supported by the IUCN Global Standard for NbS™
Nature-based solutions

Nature-derived solutions

Nature-inspired solutions

“NbS are often described as ‘no-regret’ options, providing benefits to people in a range of scenarios.”

“Nature-based Solutions have a vitally important role to play in addressing both the causes and consequences of climate change.”
NbS for Climate Change Mitigation

THREE STEPS TO NATURAL COOLING
Protect intact ecosystems, manage working lands and restore native cover to avoid emissions and enhance carbon sinks.

Nature-based solutions could save 10 gigatonnes of carbon dioxide equivalent per year

Avoided emissions 5 Gt CO$_2$ yr$^{-1}$
Enhanced sinks 5 Gt CO$_2$ yr$^{-1}$

Intact lands 4 Gt CO$_2$ yr$^{-1}$
Working lands 4 Gt CO$_2$ yr$^{-1}$
Native cover 2 Gt CO$_2$ yr$^{-1}$

PROTECT
Forests, grasslands and more

MANAGE
Land for crops, grazing and timber

RESTORE
Forests, wetlands and more

Underlying data are in Supplementary Information, Table S1.

Nature-based Solutions are critical for achieving Net Zero

Net Zero by 2050

=  

Ambitious Emissions Reductions (decarbonization of global economy)

+  

Nature-based Solutions (protect, manage & restore ecosystems)

•  at least 5 GtCO$_2$e/year at 2030  (max est: 11.7 GtCO$_2$e/year)
•  at least 10 GtCO$_2$e/year at 2050  (max est: 18 GtCO$_2$e/year)

• UNEP and IUCN (2021) Nature-based solutions for climate change mitigation
NbS for Climate Change Adaptation and Disaster Risk Reduction

Mangroves → Coastal Resilience
• Mangroves provide over $65 billion in flood protection, and safeguard 15 million people against flooding per annum\(^1\)
• Of all the world’s ecosystems, mangroves are the most effective per unit area at trapping and storing carbon\(^2\)

Green spaces → Urban Resilience
• Green spaces absorb storm water run-off, reduce urban heat-island effect, and lower drought impacts and remove carbon
• Sponge City – Xiamen, China
• Green Cities, Clean Waters – Philadelphia, USA

Wetlands helped to avoid US$ 625 million in direct flood damages during Hurricane Sandy in 2012\(^3\)

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\(^3\) Narayan et al. 2017. ‘The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern USA’, Scientific Reports, 7(9463)
NbS in Nationally Determined Contributions (NDCs)

Nature-based Solutions in Nationally Determined Contributions
Synthesis and recommendations for enhancing climate ambition and action by 2020

Nathalia Gordon, Saudap Sangguth, Merla García Espinosa, Rita Hauser, Donnhee Han and Ali Raza Rizvi

Source: UNEP and IUCN (2021) Nature-based solutions for climate change mitigation
Recent developments from Glasgow

• Unprecedented attention to Nature & Nature-based Solutions at COP26
  • Thematic priority of UK COP26 Presidency
  • Multiple high-level events and references to NbS
  • *MDB Joint Nature Statement* committed to support countries to implement NbS

• **Glasgow Climate Pact** *(Decision 1/ CP.26 & Decision 1/ CMA.3)*
  • COP26 explicitly recognised – for the first time – “the interlinked global crises of climate change and biodiversity loss, and the critical role of protecting, conserving and restoring nature and ecosystems in delivering benefits for climate adaptation and mitigation, while ensuring social and environmental safeguards”
  • We now need to move from recognition to establishing concrete pathways for delivery. Nature-based Solutions provide a widely accepted operational framework
  • A clearer reference to NbS would give greater confidence to the many state and non-state actors who are now already applying them at scale, and also provide improved accountability and oversight of NbS by Parties
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Nathalie Doswald
Moderator | Coordinator of the PEDRR Secretariat
PEDRR-FEBA Recommendations

based on the 1st draft of the Global Biodiversity Framework

Nathalie Doswald, Coordinator of the PEDRR Secretariat, UNEP
Verónica Ruiz, Programme Manager EcoDRR, IUCN (on behalf of FEBA)
1. Align the GBF with other UN Conventions, including the Paris Agreement and Sendai Framework for Disaster Risk Reduction 2015-2030

2. Include a definition of Nature-based Solutions, based on that of the IUCN and its Standard within a CBD decision and the GBF

IUCN defines NbS as “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.”

WCC-2016 Resolution 069
3. Include Ecosystem-based approaches for Disaster Risk Reduction (Eco-DRR) alongside Adaptation (EbA) in Targets 8 and 11.
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4. Monitor the use and contribution of Ecosystem-based approaches and NbS, to promote further knowledge and uptake.
Thank you

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