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Nature-based Solutions and the Wetland Management in Japan

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Nature-based Solutions and the Wetland Management in Japan

Ministry of the Environment, Japan **Kaoru SAKAI**





Speaker

- Kaoru SAKAI
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- Wildlife Division, Nature Conservation Bureau
- B.Sc.(Env.) UniSC, Australia
- 5 years work experience as an Ecologist & Environmental Consultant in Eastern Australia
- Environmental Officer at MOEJ:
- Ramsar Convention, Migratory Bird Bilateral Convention/Agreement, EAAFP
- Endangered Species Protection, Invasive Species Control and other Wildlife Management in the alpine and sub-tropical regions of Japan





- What is Naturebased Solution?
- Case Studies of NbS in Japan
- Japan's new National Biodiversity Strategy and Action Plan
- OECMs and the '30by30 target'

What is Naturebased Solutions?

Definition of Nature-based Solutions

Nature-based solutions (NbS) are defined in the UNEA resolution as 'actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature'.



Mitigation by nature

- Maintaining healthy ecosystems is important for the carbon sink
 - > Forest sink measures : 84% of CO_2 absorption in FY2018 was by forests
 - Blue carbon : Efforts to store carbon in marine ecosystems such as seagrass beds, seaweed beds, wetlands and tidal flats, and mangrove forests.

Biomass power generation

- Among renewable energy sources, the use of biomass (especially woody) is expected to bring multiple benefits such as the energy production for local communities; ensuring resilience to natural disasters, revitalization of local industries and communities, and biodiversity conservation
 - Biomass Industrial City : An area that aims to build an integrated system with ensured economic efficiency and environmental awareness, creating disasterresistant towns and villages centered around the biomass industry.

Disaster Risk Reduction / Adaptation

 Important adaptation measure to promote the development of regions that are resilient to disasters where people can live in harmony with nature, in light of predictions of more severe weather events due to climate change and other factors.

Ecosystem Network

• Efforts such as OECM, nature restoration, and urban green space development will create multi-benefits, including securing places for interaction.

Water-related Disasters and Eco-DRR

環境省



Case Study of DRR

Seashore vegetation for the protection of inland areas and coastal flora

- Ishikari City designated the protection areas at Ishikari Seashore to protect its unique <u>coastal flora</u>
- Seashore vegetation can moderate severe coastal environment (wind, blown sand and salt, dryness)
- Sand dunes also function as <u>natural seawalls</u> to protect inland areas from high waves
- When the area is not affected by disasters, seashore ecosystem provides <u>recreational opportunities</u> (environmental education, swimming etc.)









Case Study of DRR

Restoration of Wetlands : 'Winter-flooded Rice Paddy Project'

- Conversion of the adjoining fallow fields into wetlands had enabled Kabukuri-numa to become one of the largest wintering sites for migratory birds in the country, while functioning as flood-control basin
- Farmers keep their paddy fields around Kabukuri-numa 'flooded' during winter to provide habitat for Greater White-fronted Geese and to disperse the overcrowded population
- 'Kabukuri-numa and the surrounding rice paddies' was designated as Ramsar site in 2005
- Farmers produce high-value-added rice free from pesticides





Eco-tourism











Case Study of Eco-tourism at Ramsar Site

Location: Yakushima Town, Kagoshima Prefecture

Designation: 8th November 2005

Area (ha): 10

Characteristics: Breeding ground for *Caretta caretta* (Loggerhead Turtle)

Conservation measures taken:

Special Zone of Yakushima (Island) National Park

Overview:

Sandy beach located in the northwest part of Yakushima Island, Kagoshima Prefecture. The beach consists of two areas - approx. 1km to the south of the mouth of Nagata River and 2km to the north.





fence for turtles



Case Study of Eco-tourism at Ramsar Site



(Rules for users at the coastline where sea turtles are seen) Most sea turtles lay eggs and their juveniles hatch from eggs after sunset. Therefore, there are different set of rules that apply throughout the day and at night.

[Rules applicable throughout the day]

- **1.** No entering into the sea turtle protection fences
- \rightarrow At Nagata Beach, fences have been installed to protect juveniles in areas where a large number of egg-laying nests is observed. Please do not enter the sea turtle protection fences, as you may step on eggs or juveniles.
- 2. No use of fires on the beach
- \rightarrow Eggs are laid everywhere on the beach. If users make a fire, there is a high risk that eggs and juveniles might jump into the fire.
- 3. No camping on the beach
- \rightarrow Lighting at camping affects sea turtles moving ashore and juveniles returning to the sea.
- 4. No taking of sands
- \rightarrow Taking of sands might lead to a decrease in the number of sandy beaches where sea turtles need to lay eggs and juveniles hatch.



Case Study of Eco-tourism at Ramsar Site



[Yakushima Tour Guide Registration and Certification System]

Purpose: To preserve the unique nature and culture of Yakushima Island, to ensure its proper and sustainable use, and to contribute to regional development through activities as a guide trusted by users and local communities, and to help establish the social status of guides.

Guide Requirements : The Yakushima Guide Registration and Certification System has three categories:

 Registered Guide, 2) Certified Guide and 3) Officially Certified Yakushima Guide ※Registered Guide and Certified Guide are the classifications given by the Yakushima Town Ecotourism Promotion Council, while Officially Certified Yakushima Guide is given by the Yakushima Town Ordinance.







屋久島公認ガイド商標登録証

Japan's new National Biodiversity Strategy and Action Plan

- 'National Biodiversity Strategy and Action Plan (NBSAP) of Japan 2023-2030' was developed in response to the adoption of the 'Kunming-Montreal Global Biodiversity Framework' at CBD-COP15 (approved by the Japanese National Cabinet in March 2023)
- The NBSAP sets out **the realization of 'Nature-Positive'** as its mission for 2030. The NBSAP emphasizes the needs for the integrated responses to the 'twin environmental crises' biodiversity loss and the climate change, as well as the transformative change of the society.
- Pillars of our NBSAP are 1) Achieving the '30by30 target'; 2) Promoting Nature-based Solutions (NbS); and 3) Realizing Nature Positive Economies.



Set of indicative policy options to simultaneously address issues such as decarbonization and circular economy to realize "Nature-Positive"

Portfolio of actions to halt and reverse biodiversity loss

Source: Created based on "the Global Biodiversity Outlook 5th Edition (GBO5)"

Structure of the NBSAP of Japan 2023-2030

- The newly adopted NBSAP was developed in response to the KM-GBF (Cabinet decision on 31 March 2023)
- In our NBSAP, we **improved the review and assessment mechanisms** by creating a structure that organizes Related measures, Action-Oriented Target, State-Oriented Targets, Sub Strategies, and the realization of Nature Positive in 2030 in a single seamless step.



the relevant ministries and agencies

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Establishment of OECMs to meet the '30by30 target'

- In order to achieve the <u>'30by30 target'</u>, Japan promotes the establishment and management of natural sites under Other Effective area-based Conservation Measures <u>(OECMs)</u> in addition to the expansion of protected areas such as National Parks.
- 122 sites have been certified as the '<u>Nationally Certified Sustainably Managed Natural Sites</u>' in Japan as of October 24 2023. Most of them are going to be registered as OECMs.
- The 30 by 30 Alliance for Biodiversity has been formed to promote the initiative all over Japan.





- Launched in April 2022 by MOEJ, industries and the private sector as founders.
- A total of 586 participants including companies, local governments, NPOs, etc. (as of October 24 2023)
- Members are encouraged to register their lands as OECMs, expand protected areas within their lands, and improve the quality of the ecosystems.







Thank you for your attention!

For further inquiries, please contact me on

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