

Biodiversity and Climate Change

Kapchorwa conference
The Future of Forests

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Introduction

Two major closely **interconnected major environmental threats**. In addition, there are significant **overlaps** between areas with high carbon stocks and species-rich areas.

As a main driver for biodiversity loss, CC has implications for ecosystems and biodiversity.

In turn, conserving biodiversity can foster CC mitigation measures (carbon sinks).

Where around half of the emissions remain in the atmosphere, the other half is absorbed by land and ocean.

Ecosystems with high biodiversity are more resilient to CC than impoverished ecosystems.





United Nations
Climate Change

4%

of mammals
losing half their
habitat

+1.5°C

8%

of mammals
losing half their
habitat

+2°C

41%

of mammals
losing half their
habitat

+3°C

Biodiversity

- 1992 CDB

Climate Change

- 1992 United Nations Framework Convention on Climate Change
- 2015 Paris Agreement

Synergies, convergences?

- 1992 UNFCCC and CDB, two very different regimes
- The treaties do not refer to each other
- The CDB Secretariat has been more dynamic than the UNFCCC Secretariat in dealing with forests

Synergies, convergences?

UNFCCC

Art. 1, 7...."**Reservoir**" means a component or components of the climate system where a greenhouse gas or a precursor of a greenhouse gas is stored.

8...."**Sink**" means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere.

Article 4 (d)....Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of **sinks** and **reservoirs** of all greenhouse gases not controlled by the Montreal Protocol, including biomass, **forests** and oceans as well as other terrestrial, coastal and marine ecosystems;

Synergies, convergences?

Paris Agreement

- **Preamble** ‘Noting the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity,’
- **Article 5(1)**. Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases ..., including forests.

COP 10 Decision X/33. Biodiversity and climate change

Reducing the impacts of climate change on biodiversity and biodiversity-based livelihoods

- (c) Reduce the negative impacts from climate change as far as ecologically feasible, through conservation and sustainable management strategies that maintain and restore biodiversity
- (d) Implement activities to increase the adaptive capacity of species and the resilience of ecosystems in the face of climate change, including, *inter alia*:
 - (i) Reducing **non-climatic stresses**, such as pollution, over-exploitation, habitat loss and fragmentation and invasive alien species;
 - (ii) Reducing **climate related stresses**, where possible, such as through enhanced adaptive and integrated water resource and marine and coastal management;

COP 10 Decision X/33. Biodiversity and climate change

- *(iii)* **Strengthening protected area networks** including through the use of connectivity measures such as the development of ecological networks and ecological corridors and the restoration of degraded habitats and landscapes;
- *(iv)* Integrating biodiversity into wider seascape and **landscape management**;
- *(v)* **Restoring degraded ecosystems and ecosystem functions**; and
- *(vi)* Facilitating adaptive management by strengthening monitoring and evaluation systems;

COP 10 Decision X/33. Biodiversity and climate change

Ecosystem-based approaches for adaptation

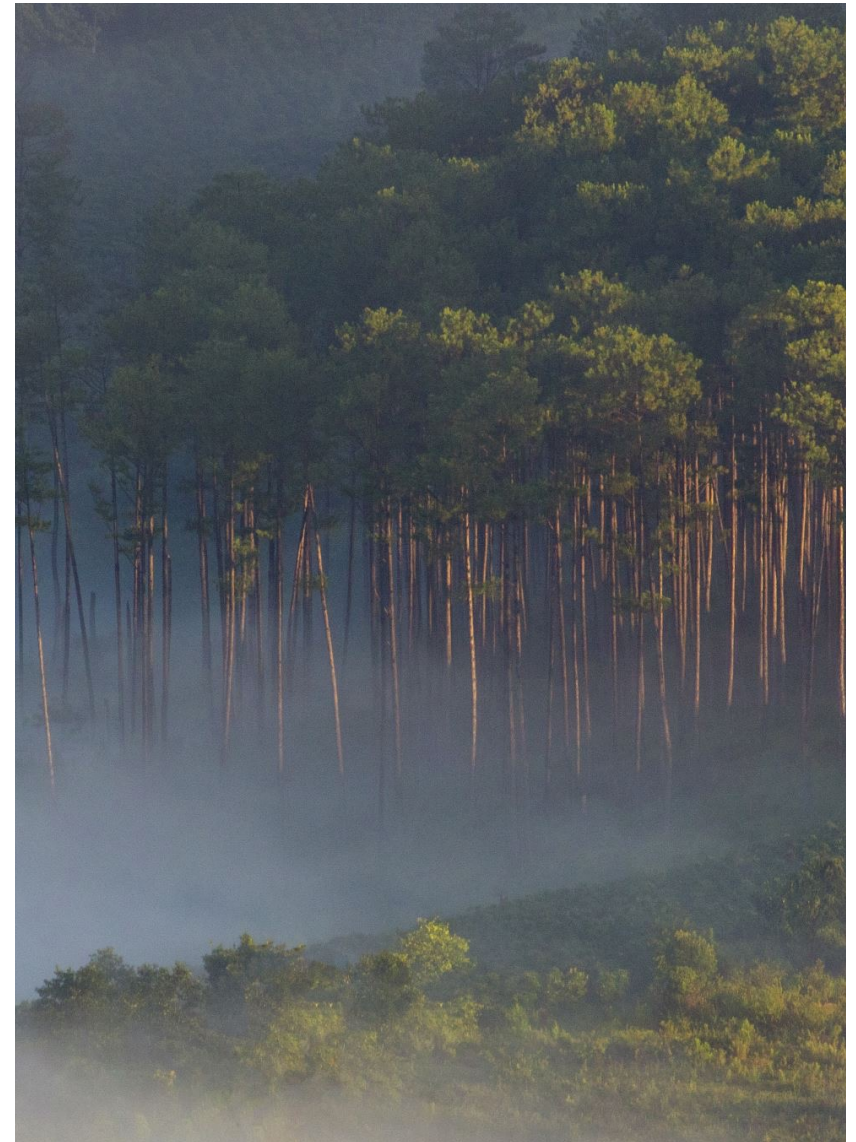
- integrate ecosystem-based approaches for adaptation into relevant strategies, including adaptation strategies and plans,

Ecosystem-based approaches for mitigation

- *(n)*Implement ecosystem management activities, including the **protection of natural forests**, natural grasslands and peatlands, the **sustainable management of forests** considering the use of native communities of forest species in reforestation activities, sustainable wetland management
- *o*)In forest landscapes subject to harvesting, clearing and/or degradation, implement, as appropriate, improved land management, reforestation and forest restoration prioritizing the use of native communities of species, to improve biodiversity conservation and associated services while sequestering carbon and limiting the degradation and clearing of native primary and secondary forests

Forests

- **Reservoirs** (carbon sinks) and **source** of CO₂.
- 80% of above-ground terrestrial carbon and 40% of below-ground terrestrial carbon is in forest.
- Tropical deforestation, is a major source of CO₂ emissions (18-25% of all emissions).
- Halting deforestation is beneficial for both CC policy and biodiversity policy.
- Protecting, managing, and restoring forests offers roughly 2/3 of the total mitigation potential of all nature-based solutions.
- Peatlands over only 3 % of the world's land, but they store twice as much carbon as all the forests.



Conclusion

- Conserving forests clearly prevents and mitigates CC risks.
- However, no clear links between the UNFCCC and the CDB.
- The CDB Secretariat has played a more active role.

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