Results of CBD AHTEG

- Established by COP-9 Decision IX/16
- Two meetings (November 2008 and April 2009)
- Report finalized mid-September 2009
- Submission to UNFCCC COP-15

Key findings

- Climate change and biodiversity are interconnected, not only through climate change effects on biodiversity, but also through changes in biodiversity that affect climate change:
  - 'Positive' feedback loops (e.g. Amazon die-back)
  - Resilience: biodiverse forests are more resilient, and increase permanence of carbon storage

Forest Resilience and Permanence

- The resilience of forests to climate change can be enhanced by conservation, restoration and sustainable management
  - Maintaining and increase diversity in forests
  - Strengthening protected area networks and ecological connectivity
  - Focusing on adaptive management
  - Assisting species migration and ex-situ conservation where needed

Ecosystem-based Adaptation

- Ecosystem-based adaptation can be cost-effective and generate social, economic and cultural co-benefits
  - Conservation, sustainable management, and restoration can help people adapt to climate change, e.g. forest landscape restoration; mangrove reforestation; protection and restoration of water catchment areas; establishment of agro-forestry systems

Ecosystem-based Adaptation

Examples of ecosystem-based adaptation measures that provide co-benefits

Adaptation measure	Adaptive function	Social and cultural	Economic	Biodiversity	Mitigation
Mangrove conservation	Protection against storm surges, sea-level rise and coastal inundation	Provision of employment options (fisheries and prawn cultivation) Contribution to food security	Generation of income to local communities through marketing of mangrove products (fish, dyes, medicines)	Conservation of species that live or breed in mangroves	Conservation of carbon stocks, both above and below-ground

REDD

- Primary forests are more carbon dense and biologically diverse than other forest ecosystems, including modified natural forests and plantations. Accordingly, the **conservation** of existing primary forests and large intact forest landscapes is critical. The application of forest management practices to previously intact primary forests could lead to increased carbon emissions.
- In forest landscapes currently subject to harvesting, clearing and/or degradation, mitigation and biodiversity conservation can be best achieved by addressing the **underlying drivers of deforestation and degradation, and by sustainable forest management**.

REDD

- In largely cleared and degraded forests, mitigation and biodiversity conservation can be enhanced through **reforestation, forest restoration and improved land management** which, through the use of native assemblages of species, can improve biodiversity and its associated services while sequestering carbon
- In general, reducing deforestation and degradation will positively impact biodiversity conservation, but this will be negated if deforestation and degradation is displaced from an area of lower conservation value to one of higher conservation value or to other native ecosystems (**leakage**).

REDD and Protected Areas

About 15% of the terrestrial carbon stock is currently within protected areas. **Effectively managing and expanding protected area networks** could contribute to climate change mitigation by reducing both current and future greenhouse gas emissions, and protecting existing carbon stocks, while at the same time protecting biodiversity.

REDD Design 1

- Implementing REDD activities in areas identified as having **both high biodiversity value and high carbon stocks** can provide multiple benefits.
- Addressing **forest degradation** is important because degradation leads to loss of carbon and biodiversity, decreases forest resilience to fire and drought, and can lead to deforestation.
- Both intra-national and inter-national **leakage** under REDD can have important consequences for both carbon and biodiversity, and therefore needs to be prevented or minimized.

REDD Design 2

- REDD methodologies based only on assessments of **net deforestation** rates could hide losses of biodiversity and carbon stocks and fail to deliver conservation benefits.
- Addressing the **underlying drivers of deforestation** and degradation will require a wide variety of ecological, social and economic approaches.
- If REDD is to achieve significant and permanent emissions reductions, it will be important to provide **alternative livelihood options** (including employment, income and food security) for those people who are currently the agents of deforestation and degradation.

REDD and indigenous communities

- REDD has potential benefits for forest-dwelling indigenous peoples and local communities, but indigenous peoples are likely to benefit more from REDD where:
  - they own their lands;
  - there is the principle of free, prior and informed consent, and
  - their identities and cultural practices are recognized and they have space to participate in policy-making processes.
- Involving local stakeholders, in particular women, and respecting the rights and interests of indigenous and local communities will be important for the long term sustainability of the efforts undertaken.

Land-use management activities

- **Afforestation activities could help to conserve biodiversity** if they, for example, convert only degraded land or ecosystems largely composed of exotic species, include native tree species, consider the invasiveness of non-natives, and are strategically located within the landscape to enhance connectivity (landscape level planning).

Land-use management activities

- **Agroforestry systems** that can result in the maintenance and potential increase of current carbon stocks and the conservation and sustainable use of biodiversity.
- Policies that integrate and promote the conservation and enhanced sequestration of soil carbon, including in **peatlands and wetlands** as well as in grasslands and savannahs, can contribute to climate change mitigation and be beneficial for biodiversity and ecosystem services

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Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Thank you.

Full report soon on www.cbd.int

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