Convention on Biological Diversity

The International Framework for Biodiversity and Climate Change

Royal Society and GBSC workshop
Biodiversity – Climate Interactions: adaptation, mitigation and human livelihoods
London, 12-13 June 2007

UNEP

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Outline

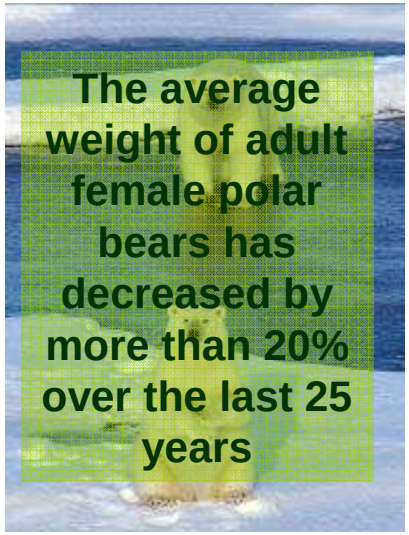
- Impact of climate change on biodiversity
- Role of biodiversity in climate change mitigation and adaptation
- Response of the CBD
- Collaboration
- Challenges and opportunities
- Conclusion

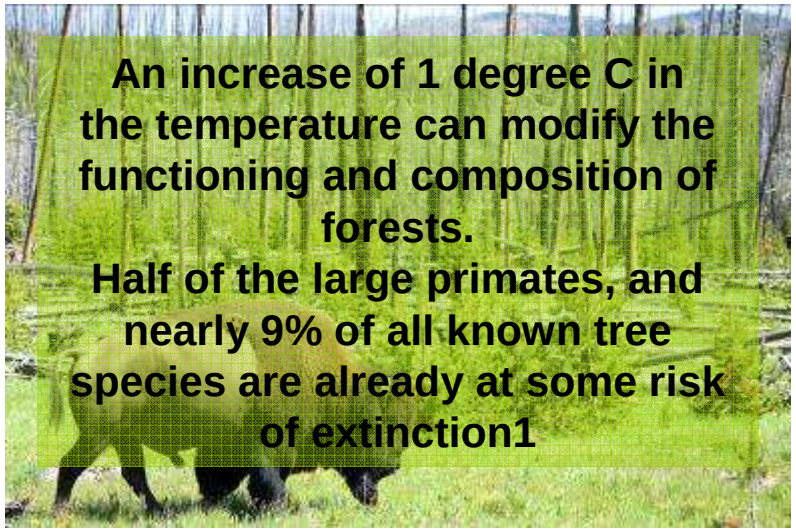
Impact of climate change on biodiversity

- **IPCC 4th assessment report**:
  - Global mean surface temperatures have risen by 0.74°C ± 0.18℃ over the last 100 years (1906–2005)
  - Eleven of the last 12 years (1995 to 2006) rank among the 12 warmest years on record since 1850
  - It has become significantly wetter in eastern parts of North and South America, northern Europe, and northern and central Asia, but drier in the Sahel, the Mediterranean, southern Africa and parts of southern Asia
  - Beginning with 1995, all but two Atlantic hurricane seasons have been above normal (relative to the 1981 to 2000 base period)
  - Satellite data indicate a continuation of the 2.7 ± 0.6% per decade decline in annual mean arctic sea ice extent since 1978
  - Over the period 1961 to 2003, global ocean temperature has risen by 0.10℃ from the surface to a depth of 700 m.

Impact of climate change on biodiversity

- **Millennium Ecosystem Assessment**
  - 35% of mangrove and 20% of coral reef areas lost
  - Biodiversity loss is 100 times faster than past record





Impact of climate change on biodiversity

- **IPCC Fourth Assessment**
- **Millennium Ecosystem Assessment**

Climate change is one of main driver of biodiversity loss

But…

Biodiversity can contribute to climate change mitigation and adaptation

Role of biodiversity in mitigation and adaptation

- Biodiversity can contribute through:
  - **Reducing emissions** from deforestation and other forms of habitat destruction
  - Providing a '**safety net**' of genetic resources for adaptation
  - Providing **protection** (bioshields) against flooding, costal erosion, etc
  - Ensuring **livelihoods** – providing **goods and services** (clean water, energy, food, etc)

Forests contain more than half of the total carbon present in terrestrial vegetations and soils

Willow can absorb 8 tonnes of CO_2 during its first growing season

Although they only represent 3% of the Earth's surface, peat bogs sequester twice as much carbon dioxide as all the world's forests

Although reefs cover only 0.2% of the world's sea floor, they contain about 25% of marine species and provide an estimated US$ 30 billion worth of benefits in goods and services

Approximately 35% of world crops depend on pollinators such as bees

Response of the CBD

- The **cross-cutting issues** on biodiversity and climate change and the **ecosystem approach**
- Climate change components within all **Programmes of Work** of the Convention (except technology transfer)
- The **Ad Hoc Technical Expert Group** on climate change and biodiversity
- **Article 8j** on local and indigenous communities and traditional knowledge

COP8-MOP3

Response of the CBD

- **Adaptation Planning Database** – Web-based guidance on the integration of biodiversity within adaptation planning http://adaptation.biodiv.org

Collaboration

- Joint Liaison Group { CBD, UNFCCC, UNCCD } identified a number of opportunities for collaboration including activities that promote adaptation to climate change.

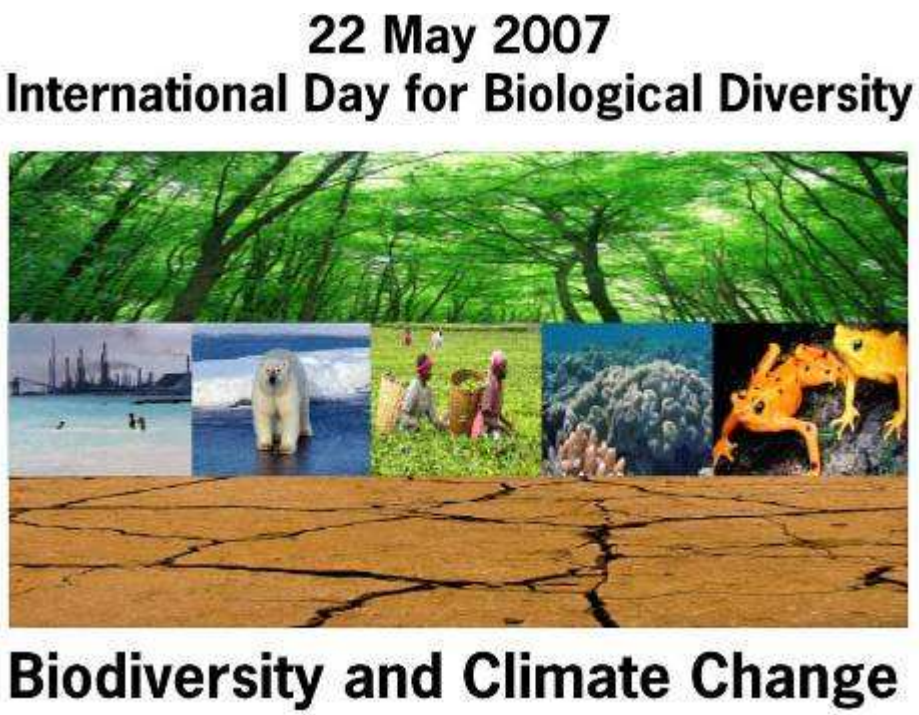
- Collaboration with **UNFCCC** on issues related to:
  - The Nairobi work programme on impacts, vulnerability and adaptation to climate change
  - Reducing emissions from deforestation in developing countries
  - Collaboration among UNFCCC and CBD national focal points

Collaboration

- Reducing emissions from deforestation in developing countries
  - 2 workshops organized by the UNFCCC, attended by the SCBD
  - Panel on synergies with other Conventions

Collaboration

- Celebrations of the **International Day for Biological Diversity** in 2007 under the theme ‘biodiversity and climate change’



Collaboration

- Recent meetings convened by the CBD with the financial support of the Government of Canada:
  - Roundtable on the interlinkages between biodiversity and climate change with **IPCC** experts and the Bureau and Chairs of **SBSTTA** (Montreal, Canada, 19-20 March 2007)
  - Informal consultation on the links between the conservation and sustainable use of **forest biodiversity** and climate change (Rome, Italy, 17 March 2007)
  - Workshop on Climate change and Wetlands in partnership with the Secretariat of the **Ramsar Convention** (Gland, Switzerland, 23-24 March 2007)

Challenge and opportunities

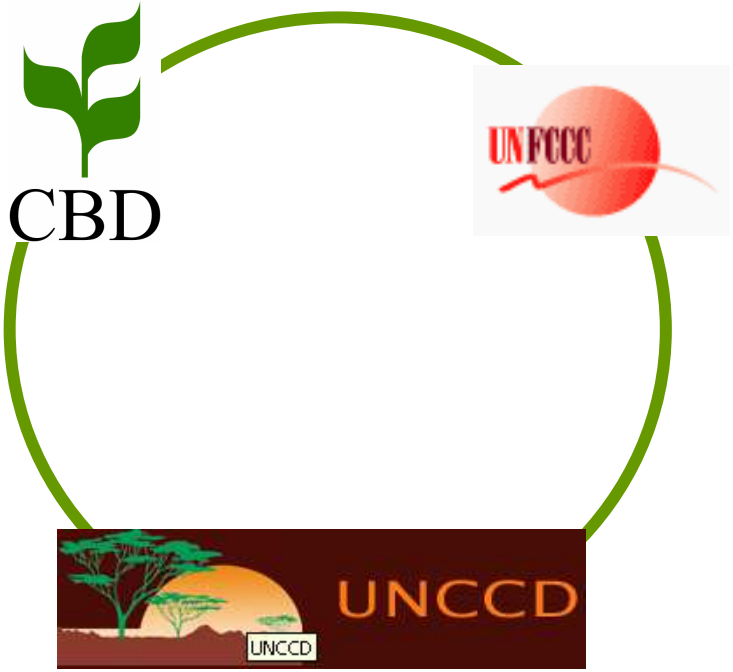
- Collaboration on s**pecific programme areas**
  - UNFCCC: reducing emissions from deforestation in developing countries
    - currently under discussion within the UNFCCC
    - close links with the forest biodiversity programme of work
  - CBD: Technology transfer, Incentive Measures, Communication Education and Public awareness
  - Enhancing integration of climate change impacts and response activities within the programmes of work of the Convention
    - for discussion at SBSTTA-12

Challenge and opportunities

- Collaboration on **cross-cutting activities**
  - Capacity building
  - Technology transfer
  - Research and monitoring
  - Information and outreach
  - Reporting
  - Financial Resources

- Promoting synergies at the national level

Conclusion



Achieving the
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Biodiversity
Target