THE ROLE OF ECOSYSTEMS IN CLIMATE CHANGE MITIGATION

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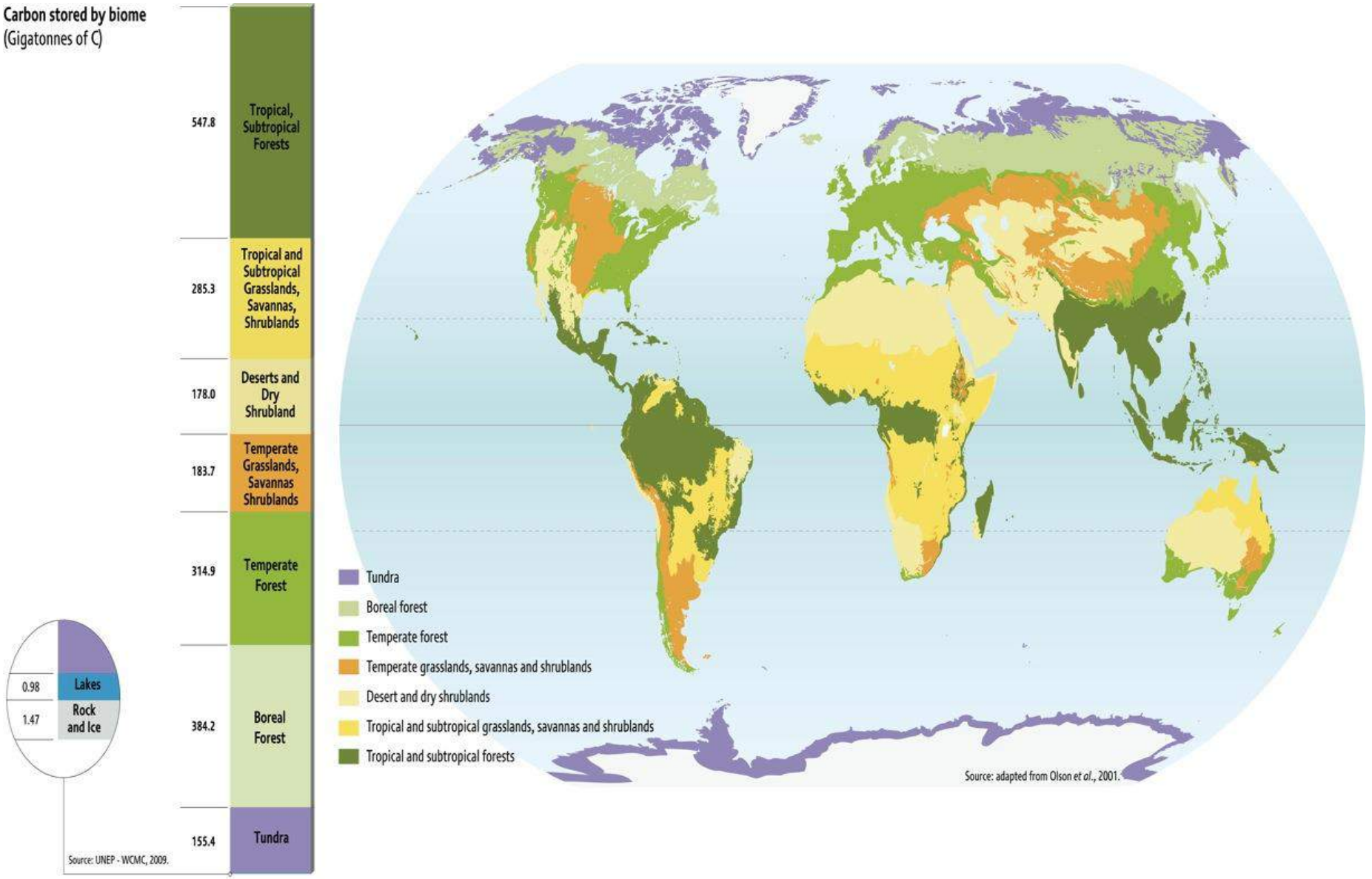
United Nations Decade on Biodiversity

CBD



Grid Arendal, ***Rapid Response Assessments – the Natural Fix.*** Available at: http://www.grida.no/publications/rr/natural-fix/page/3721.aspx

Ecosystem diversity = a diversity of options

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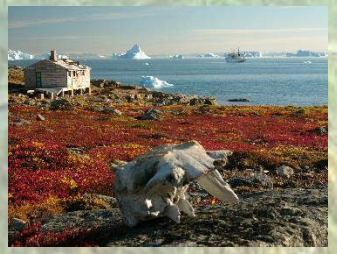
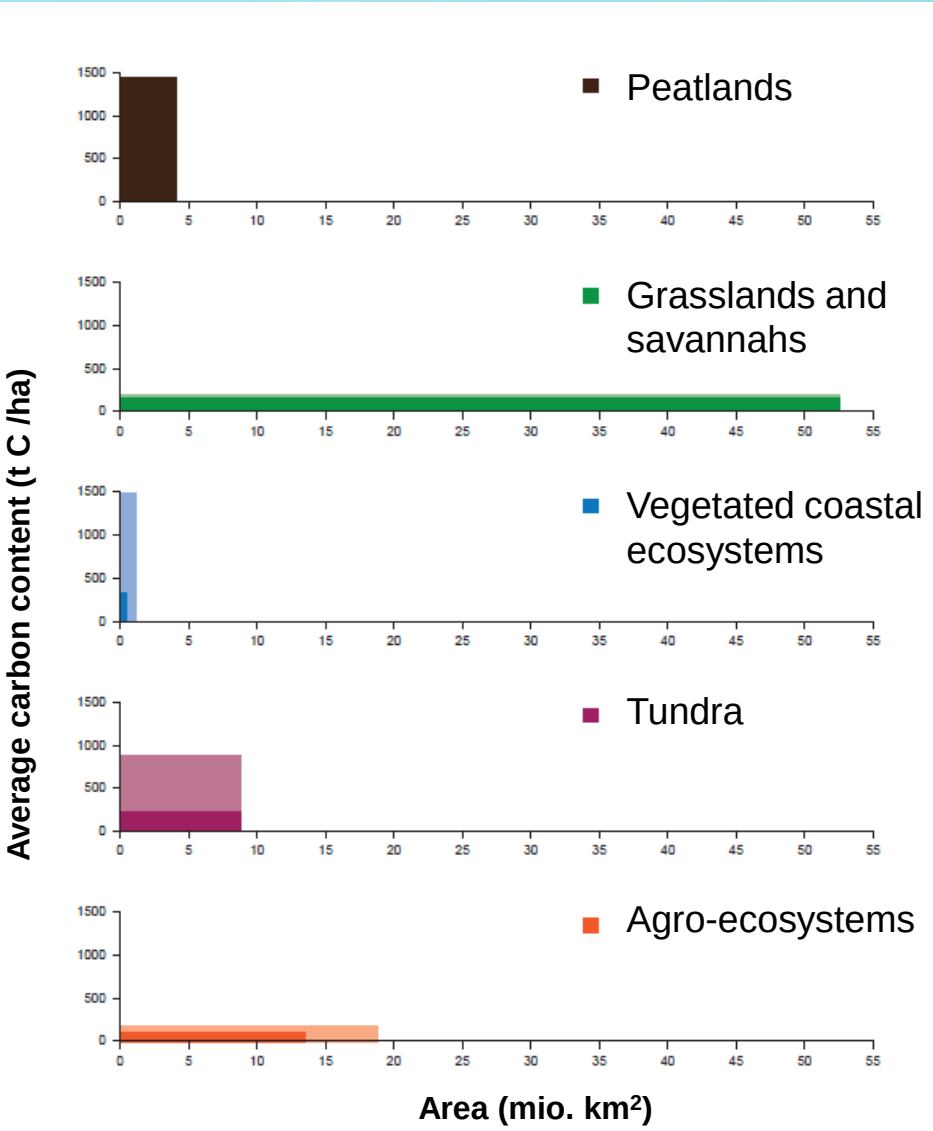
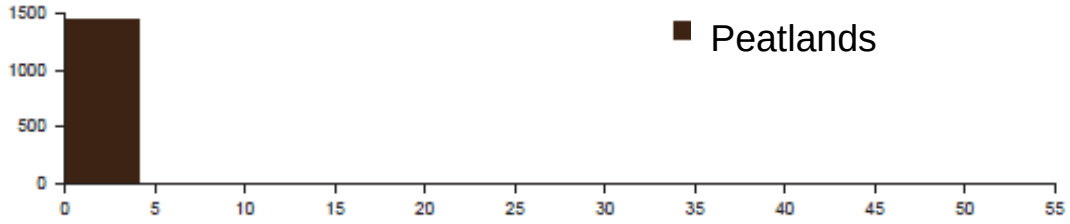




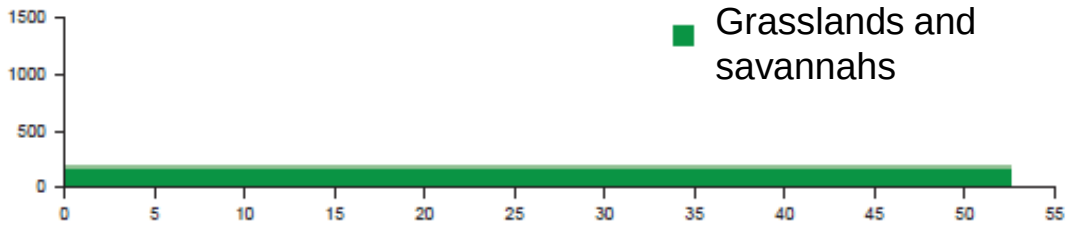
Peatlands

- Small area
- High carbon content per area
- Significant emissions
- Main options available: conservation and re-wetting
- Possible short-term conflict with agriculture
- Long-term sustainability benefits!



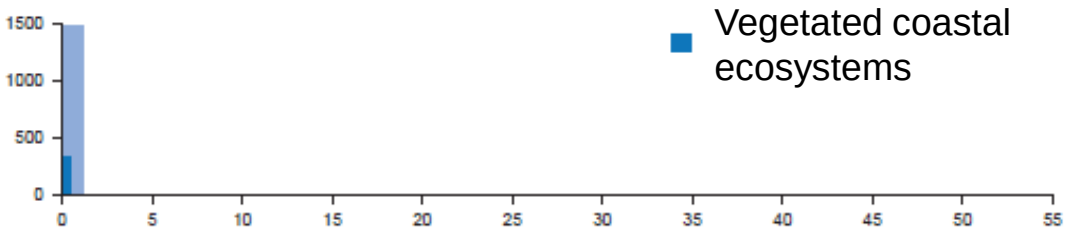
Grasslands and savannahs

- Very large area
- Medium carbon content per area
- Ongoing degradation
- Main options available: conservation, restoration, sustainable management
- Great opportunities for synergy with adaptation and poverty reduction



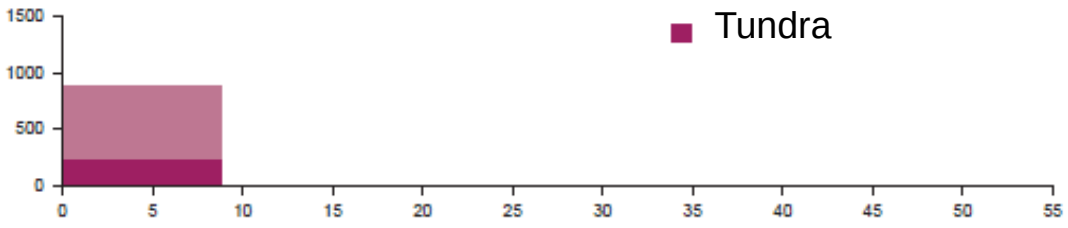
Vegetated coastal ecosystems

- Small area
- High carbon content per area
- Very high pressure
- Main options available: conservation and restoration
- Co-benefits with climate change adaptation and livelihoods



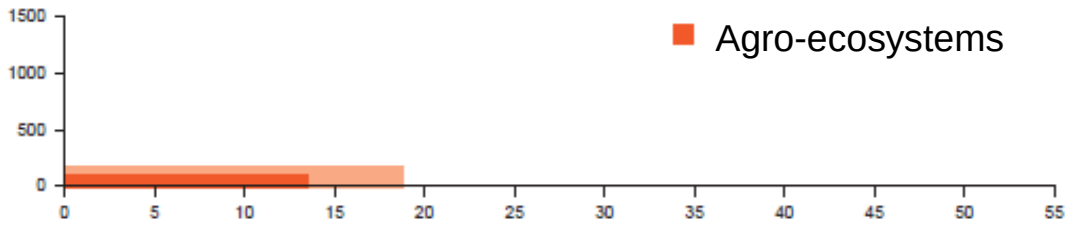
Tundra

- Medium-sized area
- High carbon content per area
- Current sink but high emissions expected
- Limited options at present but need to look ahead



Agro-ecosystems

- Medium to large area, growing
- Low carbon content per area
- Potential for sequestration
- Main option available: sustainable intensification
- Co-benefits for sustainability, livelihoods and climate change adaptation



Key lessons learned across all ecosystems

1. Perceived lack of knowledge often prevents or delays action. **But:**

- Data and methods increasingly available (e.g. IPCC, VCS, CCX)
- Pilot projects operate
- Examples of uptake in national strategies and INDCs, e.g. combined adaptation and mitigation actions in grasslands

Key lessons learned across all ecosystems

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Mongolia INDC:

"…carbon sinks of **natural ecosystems** will be increased with a capacity to absorb almost a half of the CO_2 emissions from energy sector in the country by implementing adaptation policies …"

"…Improving pasture management would increase the carbon sink of CO2 equivalent to **29 million tons** per year, which is equal to 1/3 of emission reduction in energy sector…"

Key lessons learned across all ecosystems

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Burkina Faso INDC:

"…The adaptation component consists of projects whose objective is not PRINCIPALLY the reduction of GHG (mainly through carbon sequestration), but the **enhancement of environmental services** …

" …As a bonus to the mitigation component, these projects result in the medium and long term in **considerable reductions of GHG**, which even exceed the results of mitigation efforts..."

"…Rehabilitation of 1,125,000 ha degraded land for forest **and grazing purposes**, i.e. an investment of 75,000 ha each year: 3,330 mio. T CO_2…"

Key lessons learned across all ecosystems

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2. Optimum results through landscape-scale participatory planning and engagement of stakeholders across all sectors.

Key lessons learned across all ecosystems

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3. Lessons can be learned from policies and actions targeting forests

Key lessons learned across all ecosystems

4. Reform of incentives can make transitions to more sustainable ecosystem management viable and benefit local and national economies.

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5. Maintaining existing ecosystems is generally more efficient than restoration; restoration can be a good option in areas with little undisturbed vegetation and high demand for ecosystem services.

Key lessons learned across all ecosystems

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6. Many ecosystem-based approaches benefit biodiversity, but there are also risks (e.g. in relation to biofuels and afforestation).

Thank you for your attention!

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