

Forests and Climate Change

Workshop on Forests, Range and Climate Change in
the Near East Region

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Outline of presentation

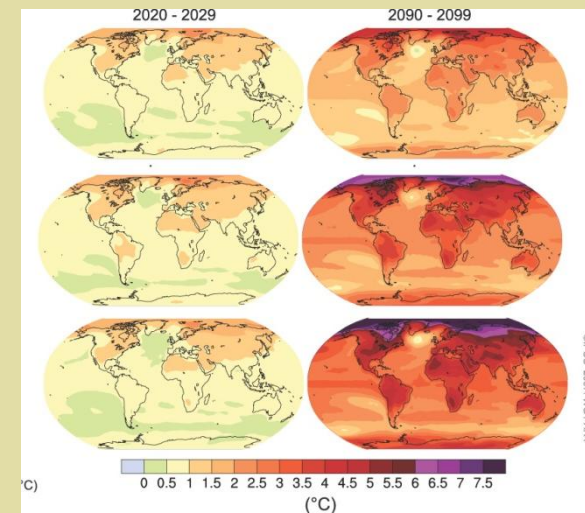
- 1. Climate change and variability**
- 2. Impacts on forests**
- 3. Adaptation & mitigation options in forestry**
- 4. Developments in international negotiations**
- 5. Key points for forestry**



Climate change

Climate change and climate variability

- rising temperatures
- changes in precipitation patterns
- increased variability in climate
- increased extreme events (storms)



Climate change impacts

Impacts on forests and forest-dependent people

- Increased damage from extreme events
- Increased damage from pests, diseases & wildfires
- Shifts in species' ranges; increased species extinctions
- Impacts on coastal forest from SLR and storms
- Impacts on forest functions and ecological processes
- Changes in forest productivity & ecosystem services → impacts on livelihoods

Indirect impacts

- Human population shifts
- Increased pressure on forests
- Changes in demand for various forest products



Adaptation vs. mitigation

The problem

The solution

Increasing Greenhouse Gas Concentrations

Mitigation

Reducing GHG emissions and concentrations in the atmosphere

Climate Change

Impacts

Adaptation

Reducing vulnerability and adapting to change



Forestry adaptation

Forest management interventions

- maintain resilience through “best practices”
- adapt management plans and practices to increase resilience, reduce risks and adapt to changes
- in-situ and ex-situ genetic conservation

Forestry measures to decrease vulnerabilities of people

- reinforce coping strategies
- diversify rural incomes
- “rights based approach” to forest access and use
- strengthen local governance



Forests role in mitigation

Reduce GHG emissions

(reduce CO₂ and other GHG emissions)

Reduce deforestation

- Conserving forests
- Addressing the drivers of deforestation

Reduce forest degradation

- Sustainable management of forests
- Conserving forest stocks

Forest management

Increase GHG removals

(increase C sequestration & storage)

Afforestation

- From non-forest to forests

Reforestation

Restoration

- From degraded forests to fully carbon stocked forests

Carbon substitution and storage in products

Substitute fossil fuels with wood energy

Increased carbon storage in wood products

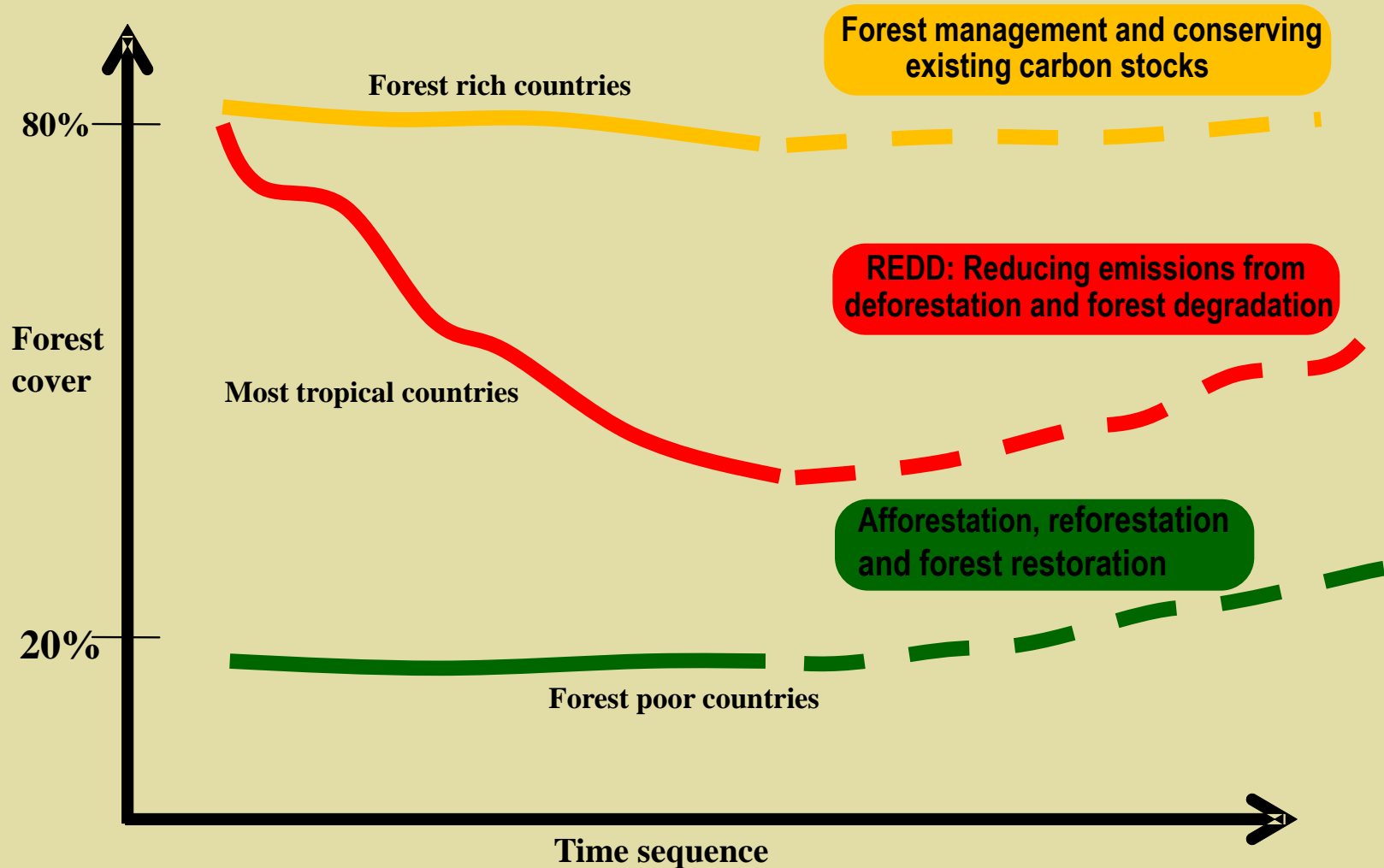
Substitute wood for more energy intensive material

Use of forest products



Forests role in mitigation

Different country situations require different approaches



International Agreements

UNFCCC (1994): international commitment to:

- **Reduce human disruption of the global climate system**
- **Take action to adapt to climate change**
- **Developed countries provide financial and technical support to developing countries**
- **Countries monitor and report to UNFCCC**

Kyoto Protocol (2005):

- **Commitments by industrialized countries and countries in economic transition to reduce GHG emissions by set amounts in the first commitment period (2008-2012)**
- **Mechanisms set up related to carbon trading (CDM, JI, ET)**



Key developments to date

- **Most countries have developed national strategies and institutional structures for climate change**
- **Least developed countries have developed National Adaptation Programmes of Action**
- **Financing is available to assist developing countries with adaptation, mitigation and reporting to UNFCCC.**
- **Adaptation has gained more prominence in UNFCCC negotiations; links with development goals emphasized**
- **REDD+ has emerged as a potential key mitigation option, and UNFCCC is developing an incentive instrument.**
- **Forest carbon markets have been sluggish, but REDD+ provides another opportunity for PES from forests**



Key points for forestry

- **CC/REDD+ has raised the political profile of forests**
- **Adaptation and REDD+ financing and capacity building offer potentially crucial support for SFM**
- **Equitable distribution of benefits and sound governance are essential to success**
- **Forest policies and forest practices will need to be adjusted and be coherent with SFM and national CC strategies**
- **National action can be reinforced by regional cooperation**
- **The sooner countries develop forest/range sector plans, the better positioned they will be to receive CC support**



Thank you for your attention.

