

# Drivers of terrestrial degradation - regional overview of Eastern and Southern Africa

Capacity building workshop on ecosystem conservation and restoration to support achievement of the Aichi Biodiversity Targets - Livingstone, Zambia, May 12-16, 2014



# Overview of forest resources in Africa

- Forests are very diverse, ranging from dry forests of humid tropical forests (FAO, 2012)
- Dry forests and woodlands are important forest resources in Africa (and especially eastern and southern Africa) covering 31 countries across western, eastern and southern Africa and the dominant vegetation in 63% of the countries (CIFOR, 2010)



# Defining deforestation and forest degradation

- **Deforestation**

The conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10 percent threshold (FAO, 2012)

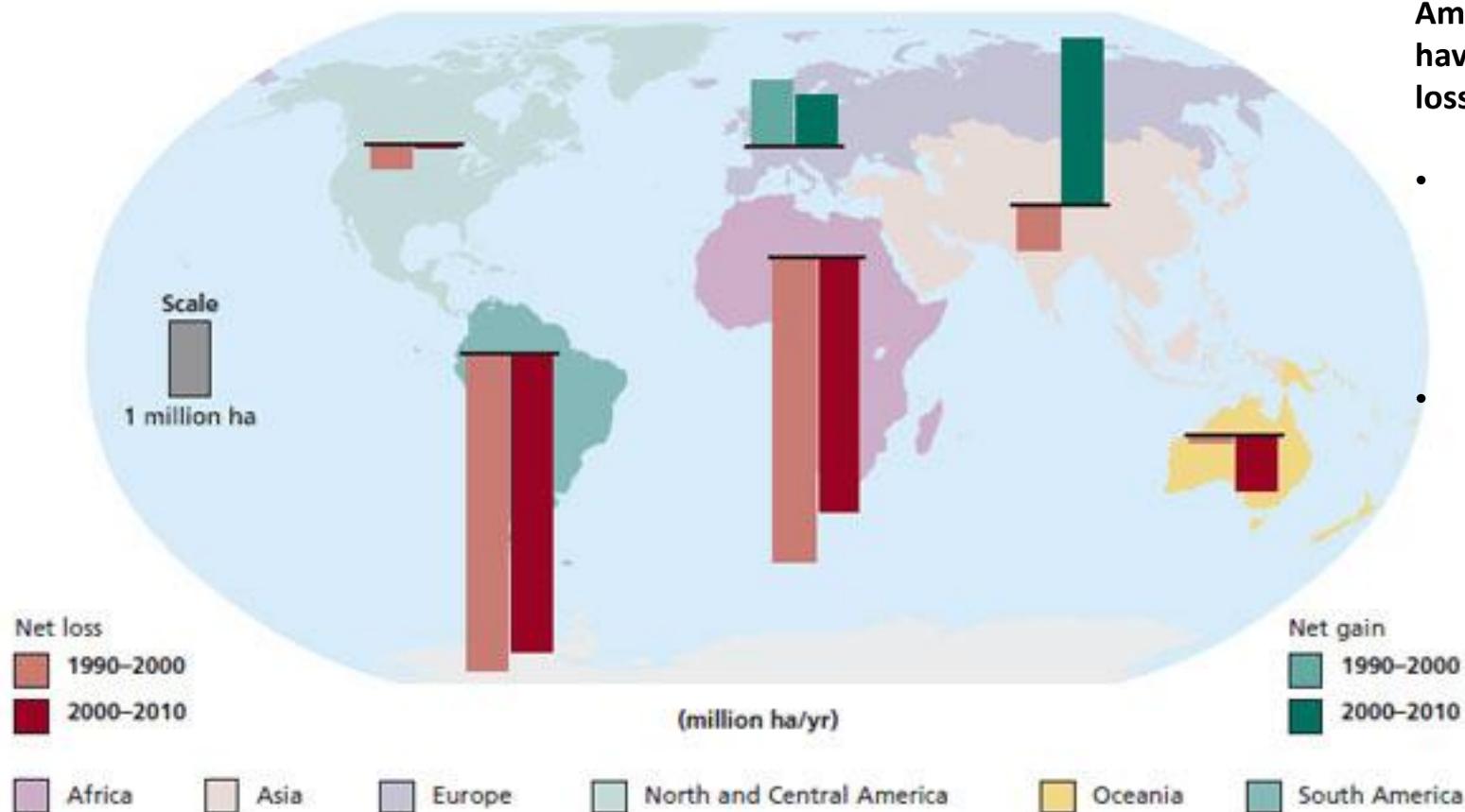
- **Forest Degradation**

The reduction of the capacity of a forest to provide goods and services (FAO, 2012)



# Annual change in forest area by region (1990-2010)

FIGURE 4  
Annual change in forest area by region, 1990-2010

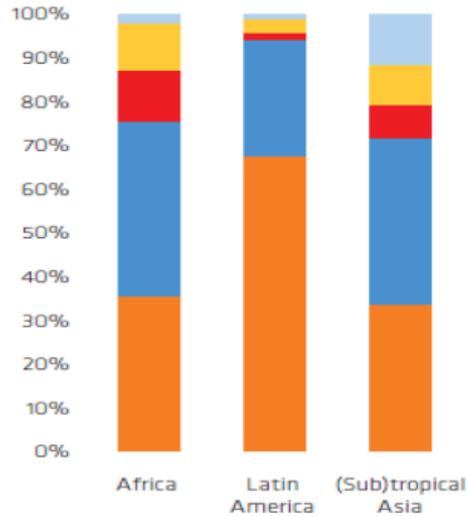


Africa and South America continue to have the largest net loss of forest

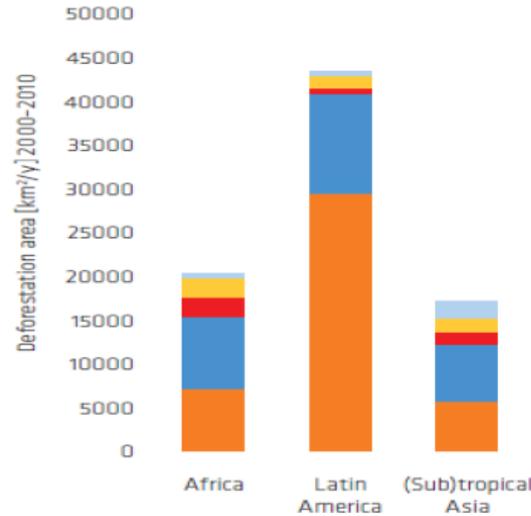
- Global deforestation 2010: **13 million ha/year** (FAO, 2010)
- Deforestation in Africa 2010: **3.4 million ha/year** (FAO, 2010)

# Continental-level estimations of relative importance of deforestation and forest degradation drivers (Hosonuma et al. 2012)

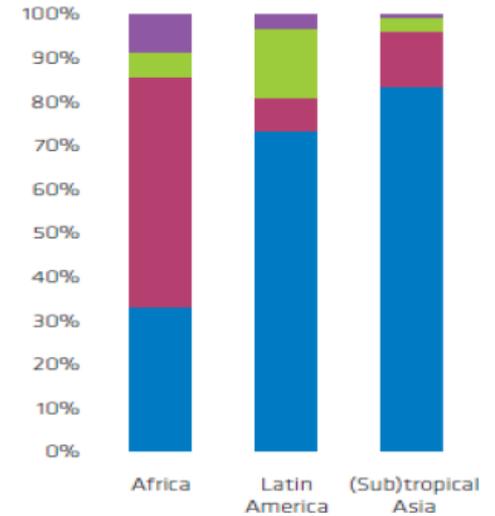
a) Proportion of deforestation drivers



b) Area proportion of deforestation drivers



c) Proportion of forest degradation drivers



## In Africa

- **Subsistence agriculture** → an important driver of deforestation (→ 1/2 of total deforested area)
- **Fuel-wood and charcoal production** → main drivers of forest degradation (more than 50%)



# Defining direct and underlying drivers

## Direct drivers

- “Proximate or direct drivers of deforestation and forest degradation are human activities and actions that directly impact forest cover and result in loss of carbon stocks “ (Kissinger et al., 2012).

## Underlying drivers

- “Interactions of social, economic, political, cultural and technological processes that affect the proximate drivers to cause deforestation or forest degradation” (Kissinger et al., 2012)



# Analysis of deforestation in East Africa Region



- ❑ Apparent shortage of land outside CFRs: In some cases, local population pressure has pushed people into adjacent CFRs.
- ❑ Encroachment in CFRs: rich and virgin forest soils attract encroachers because they employ poor farming methods and seriously degrade and exhaust soils outside forest reserves.
- ❑ Lack of awareness of government policies and laws: Quite often, failure to implement policies and legislation governing the use of forest resources;



# Analysis of deforestation in East Africa Region

- ❑ Breakdown in law enforcement: For a long time, the Forest Department (FD) staff in the region have not been able to enforce the law. This has led to inability to monitor and enforce forest rules due to the prevalence of corruption, political interference, and political failure.
- ❑ Unclear forest boundaries: Many local communities that are adjacent to forests have crossed the boundaries, knowingly or unknowingly, since the boundaries are unclear.



# Analysis of deforestation in Southern Africa Region

- Southern Africa experienced between 1990-2000 the highest rate of deforestation in Africa (1.62 mill. ha) (FAO, 2003)
- Main causes are expansion of agriculture, shifting cultivation, unregulated logging to meet demand for wood
- Causes of the problems are mainly related to the economic growth
- With employment in the non agricultural sector unlikely to expand - the majority of the populations will still be dependant on land and the increase in population will have a direct effect on forests



# Adding to the challenges: Climate Change

- Trends in deforestation, degradation and damage to ecosystem services in forest and woodland areas increase the vulnerability of both the resource and the communities reliant on the resource to climate change
- E.g. Increases in temperatures could result in:
  - Changes to tree line and phenology
  - Increased frequency of pests and pathogens
  - Higher tree mortality rates and die-off
  - Climate change is likely to change grass-tree interactions and alter the balance between rangelands, woodlands and forests



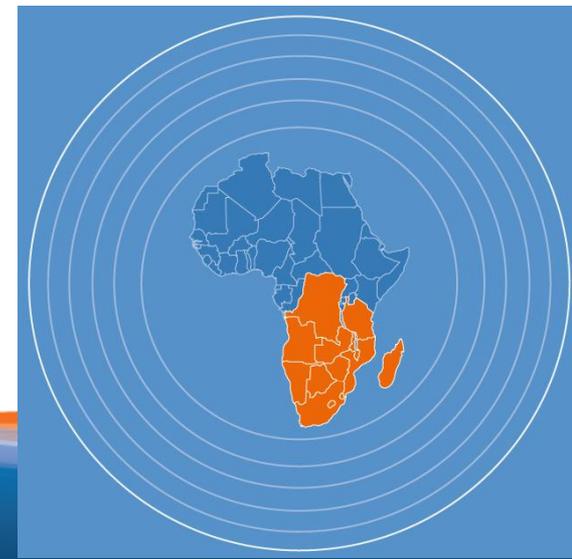
# Efforts made to reverse negative trend - deforestation and land degradation

- Several countries are promoting sustainable forest management (SFM); some have increased or maintained forest areas (e.g. participating in CDM and REDD+ initiatives);
- African countries developed Criteria and Indicators for Sustainable Forest Management;
- Promotion of forest certification e.g. in Central and West Africa under ITTO;
- Development of National Forest Programmes;
- Participating to Forest Law Enforcement, Governance and Trade (FLEGT) initiatives to promote governance and discourage illegal trade in forest products;
- Implementation of the Non Legally binding Instrument for all types of forests.



# Forests, Rangelands and Climate Change Adaptation in Southern Africa

- FAO in collaboration with the SADC secretariat organized a workshop with SADC member states to 1) take stock of countries' current efforts related to forests, rangelands and climate change and 2) to identify priorities for cooperative work in adaptation aimed at addressing gaps and common needs through a sub-regional programme
- Support to the forest and rangelands sectors in the SADC region to become climate-resilient:
  - 1.1 Reducing Vulnerability
  - 1.2 Increasing adaptive capacity
  - 1.3 Promoting adaptation technology transfer



# Project components

- Policy coherence and harmonization among SADC countries in the spheres of climate change, forestry and rangelands and fire management, and support to transfer of adaptation technologies (Aichi targets 5 and 15)
- Improved protection and maintenance of biodiversity, including wildlife, of Southern Africa's forest and rangelands (all Aichi targets)
- Improved availability of climate-resilient productive livelihoods for vulnerable forest-dependent populations across southern Africa (Aichi target 15)
- Increased scientific and technical understanding of the risks, vulnerabilities and impacts of climate change in the forest and rangeland sectors (all Aichi targets)
- Development of a regional climate change investment plan for forests and rangeland adaptation in all the 15 member states under the auspices of SADC (all Aichi targets)



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**Thank you for your attention**

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