

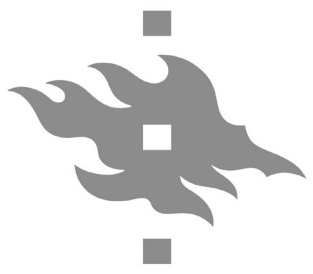


Jobs, prosperity and climate action through sustainable forestry in Africa, Helsinki, 5.3.2019

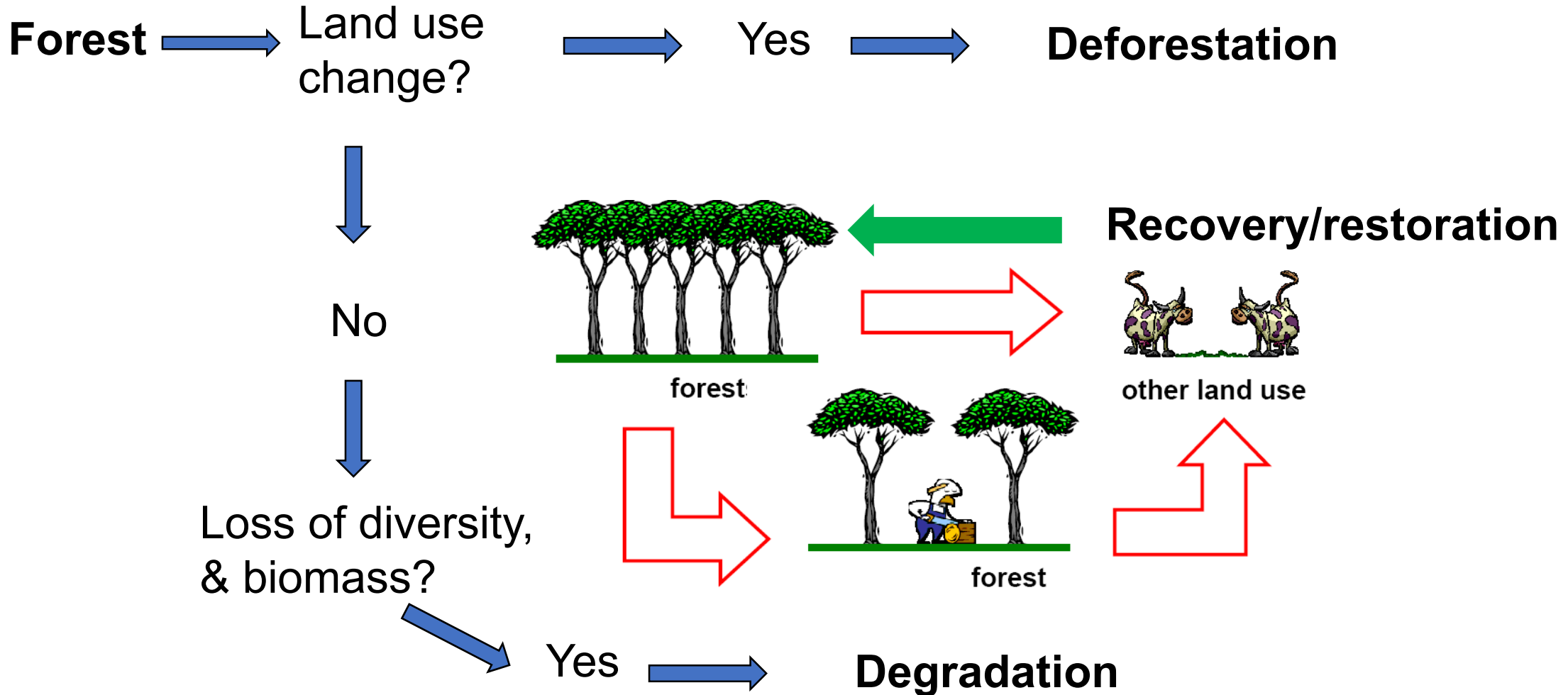
Forest transitions in Africa: Role of forests in climate action

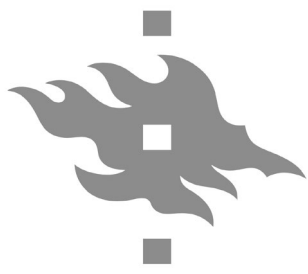
Markku Kanninen

University of Helsinki, Viikki Tropical Resources Institute (VITRI)



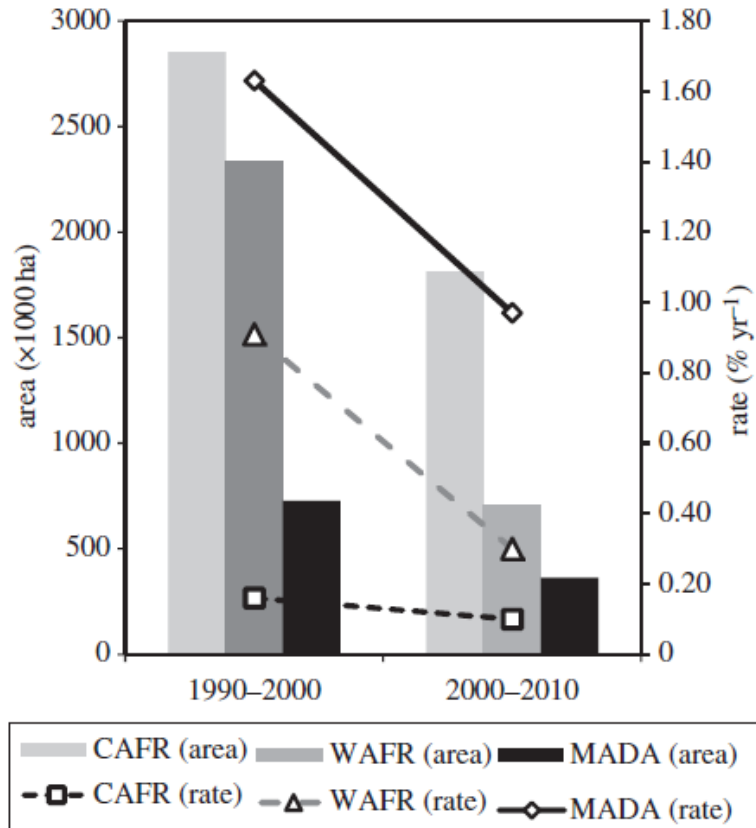
Forest transitions: Deforestation, degradation, and recovery





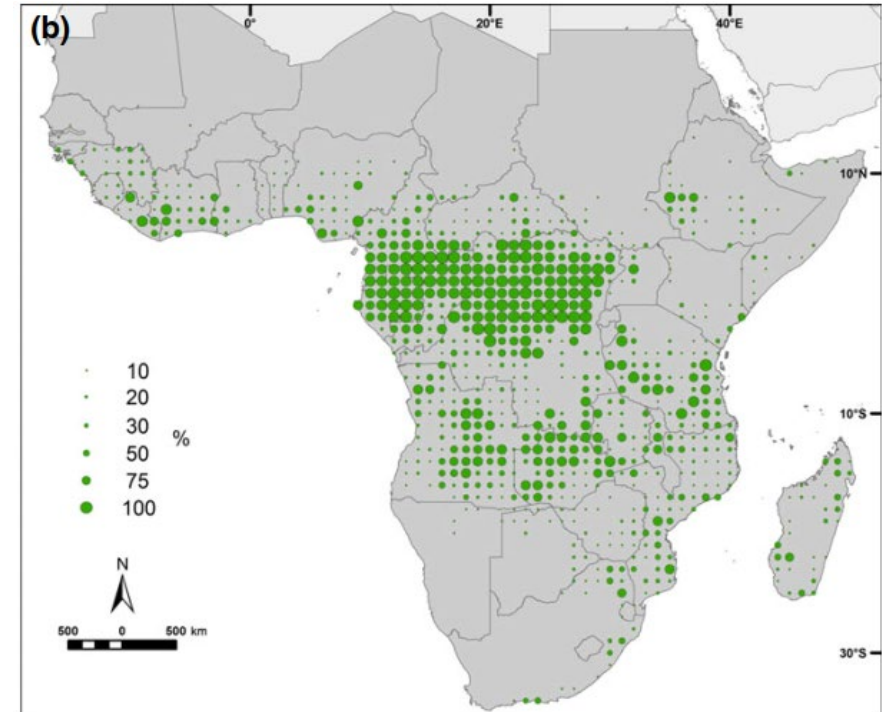
Deforestation in Africa's rainforests is slowing down

Deforestation area (1000 Has.) and rate (%) in Africa 1990-2010

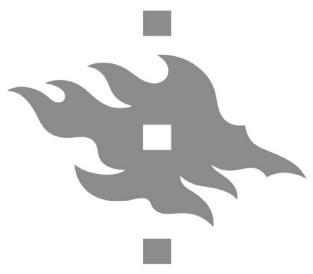


CAFR = Central Africa
 WAFR = West Africa
 MADA = Madagascar

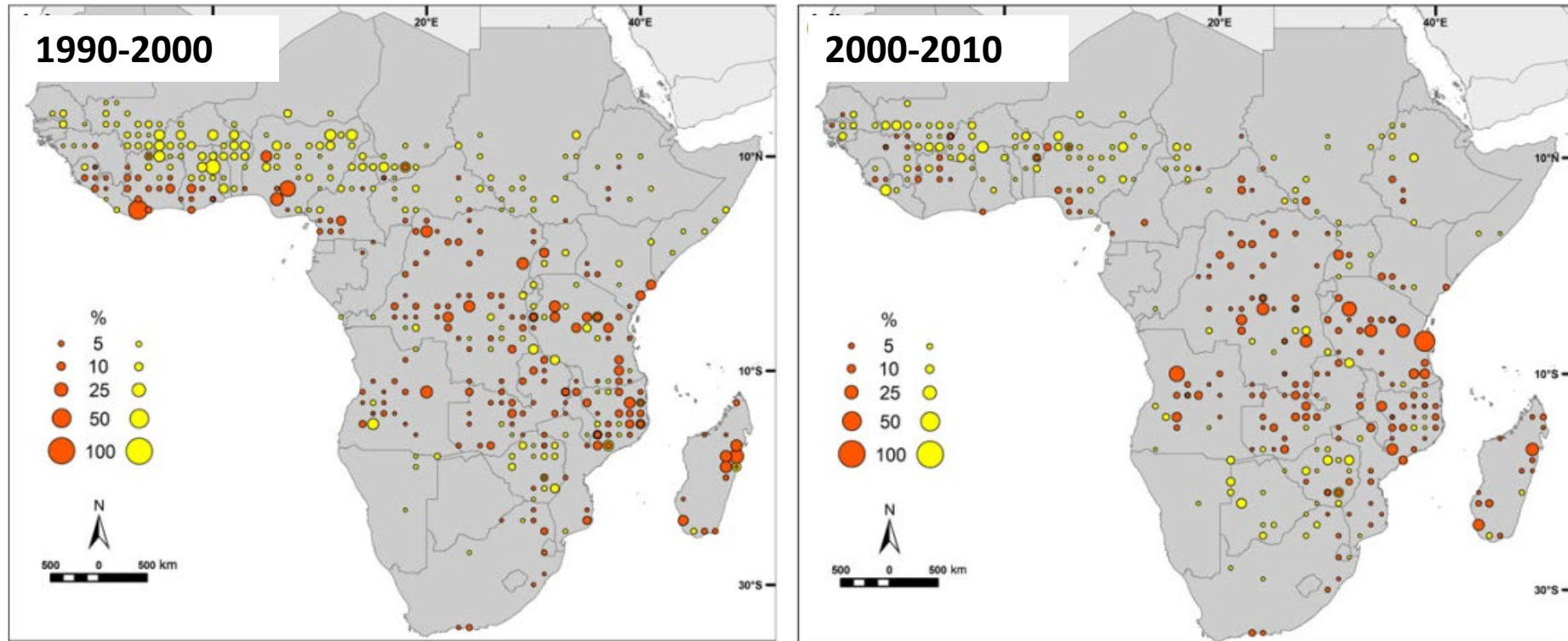
Proportion of forest cover in Africa in 2010



Achard et al. 2014



Loss of forest (●) and other wooded land (●) in Africa in two periods





Tree cover on agricultural land 2000 and 2010

Global results

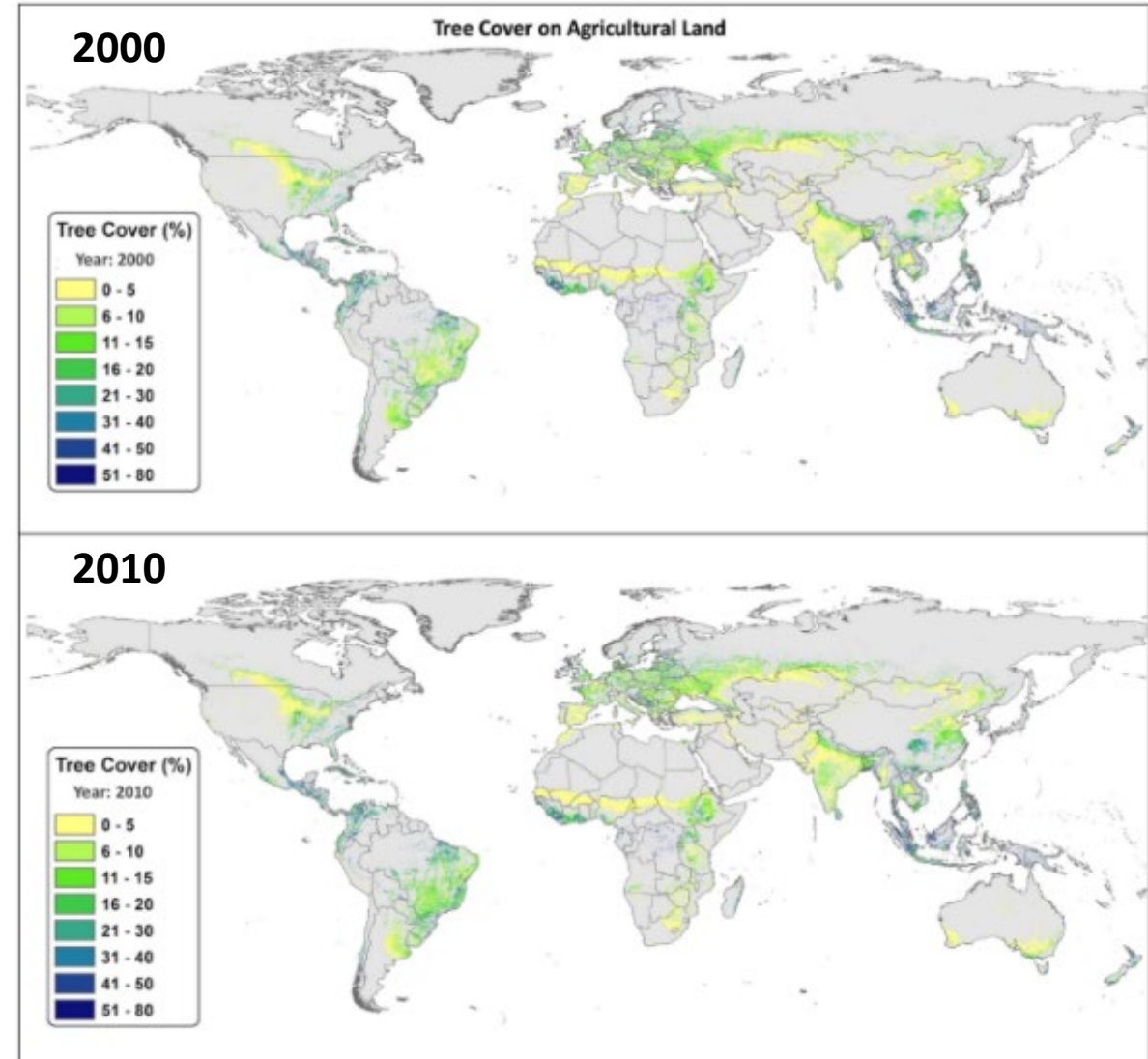
- 2010, 43% of all agricultural land globally had at least 10% tree cover
- This has increased by 2% over the previous ten years

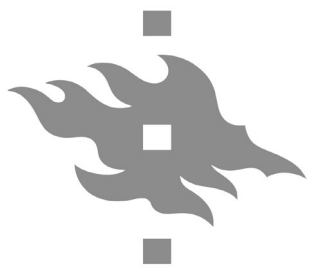
Western Africa:

- High tree cover and biomass
- Largest decrease in biomass carbon

Other parts of Africa:

- Slight decline in tree cover and biomass

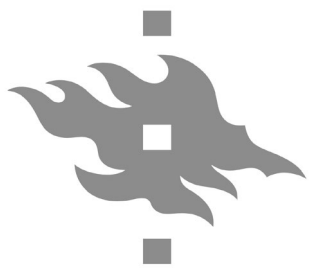




Emerging picture?



Wood production in smallholder wood lots, Ethiopia

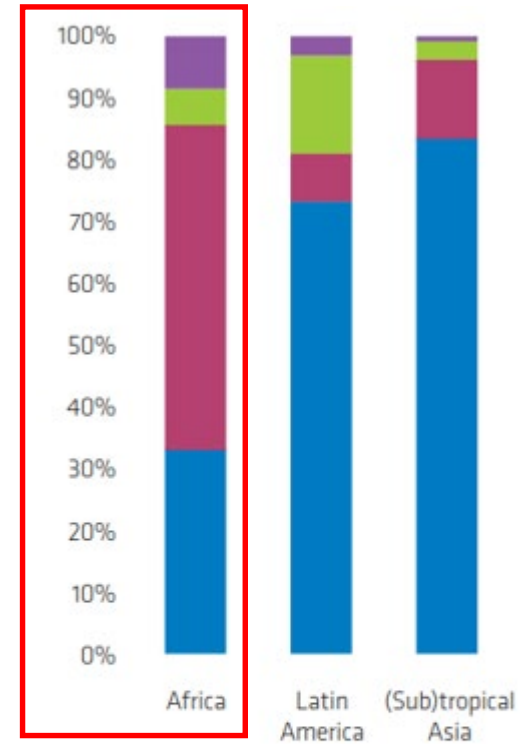


Deforestation and forest degradation drivers globally

Proportion of deforestation drivers



Proportion of degradation drivers



- Urban expansion
- Infrastructure
- Mining
- Agriculture (local / subsistence)
- Agriculture (commercial)

- Livestock grazing in forest
- Uncontrolled fires
- Fuelwood charcoal
- Timber logging



Forest – food – climate nexus



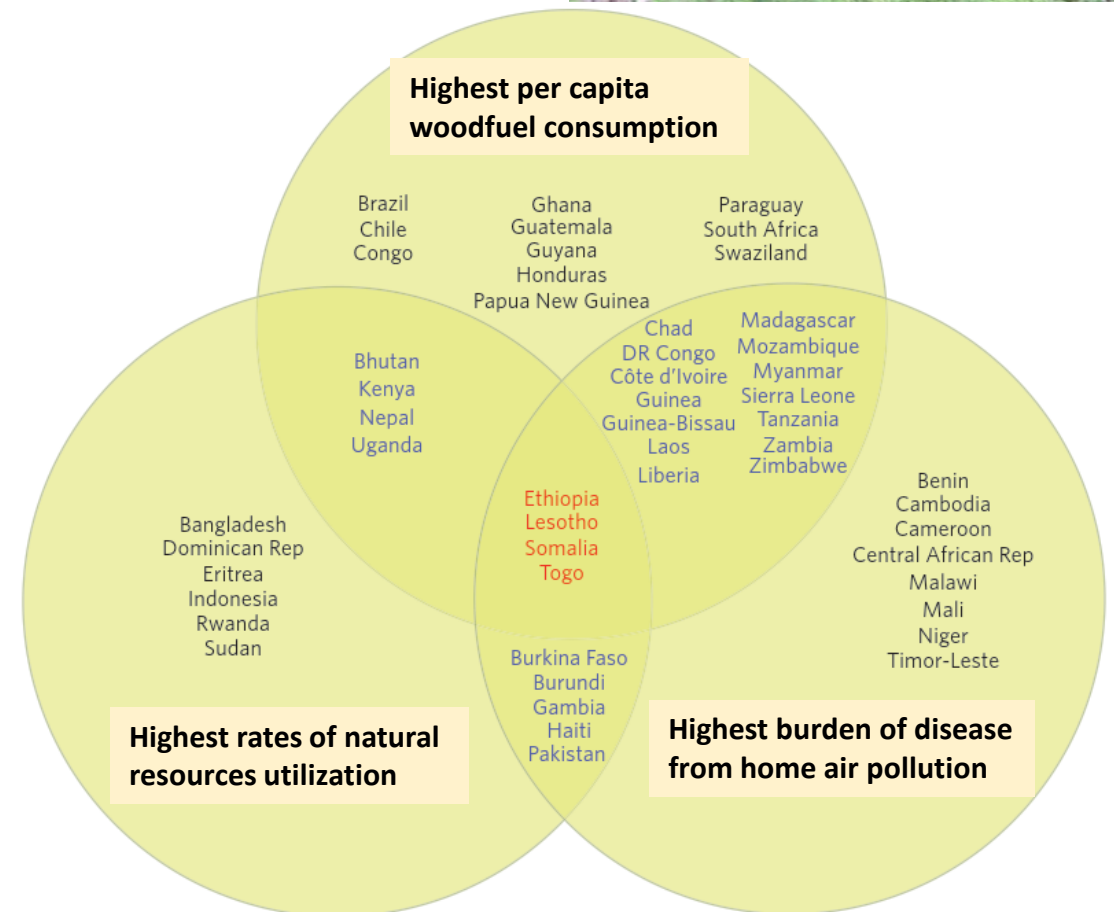
- Low agricultural productivity leads to forest loss in Africa
- Expected population growth – food security challenges
- Climate change is influencing agriculture and food security
- Agroforestry systems: high potential in the future



Forest – energy – climate nexus



- Traditional biomass energy is still important in Africa
- Globally, 27-34% of traditional biomass use is unsustainable
- Global emissions: 1.0-1.2 Gt CO₂ yr⁻¹
- “Hot spots”
 - Eastern Africa & South Asia
- Broad societal implications to health, equity, gender etc.





Forest – water – climate nexus



- Access to clean water will be one of the major challenges in the future in Africa
- Forests and trees in catchments play a crucial role in water quality and quantity
- Water will be one of the most important ecosystem services of forests
- Multifunctional forests integrated into rural economies



Thank you

markku.kanninen@helsinki.fi