

***Forest Landscape Restoration– Experiences  
on the ground from Ethiopia***

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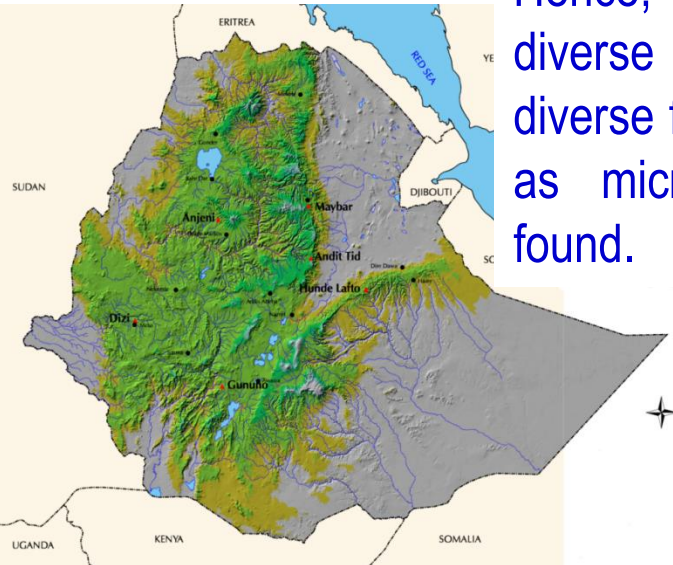
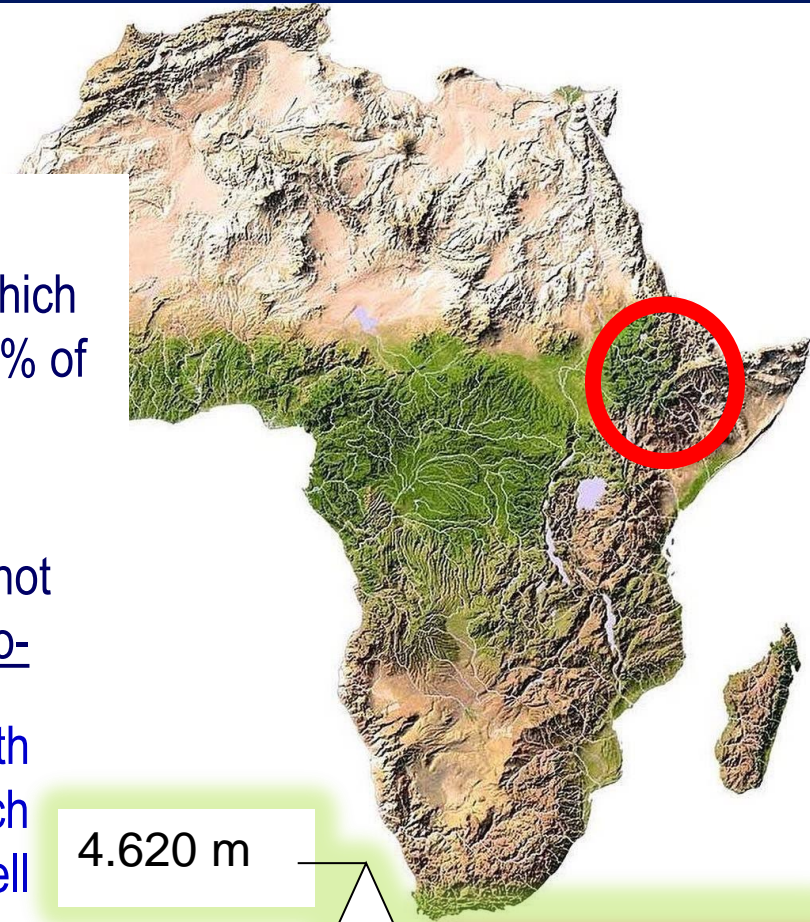
# 1. Introduction

Ethiopia, is located in the horn of Africa

**Size:** has a total area of 1,104,300 km<sup>2</sup>.

- **Population:** Ethiopia has reached 100 million.
- **The economy** of Ethiopia is based on agriculture, which accounts for 46.3% of GDP, 60% of exports, and 80% of total employment.
- The Altitude vary from **125 mbsl** to **4,620 masl**.
- Although Ethiopia is a tropical country with typically hot and dry lowland areas, it has varied macro and micro-climatic conditions.

Hence, it is endowed with diverse ecosystems in which diverse flora and fauna as well as microbial resources are found.



4.620 m

High lands

1.500 m

Low lands

-125 m

## 2. Forest resources

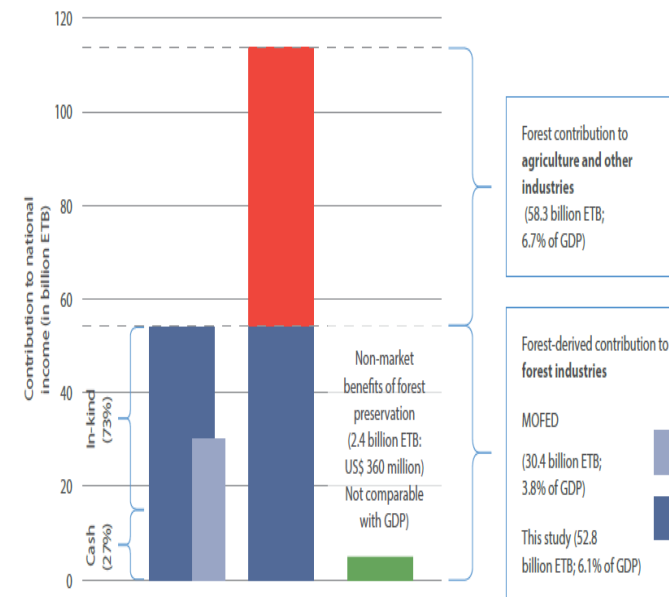
Forestry is one of the vital economic sector in Ethiopia, identified as one of the four pillars in the Climate Resilient Green Economy (CRGE) strategy.

The sector provides enormous social, economical, ecological, cultural, etc...importance to the country.

- Contribution to poverty alleviation and enhancing food and forest products security
- Contribution to energy and water resource sectors
- Contribution to the agriculture and related sectors
- Potential values from forest ecosystems and environmental services
- Job creation and income generation opportunities
- Etc...

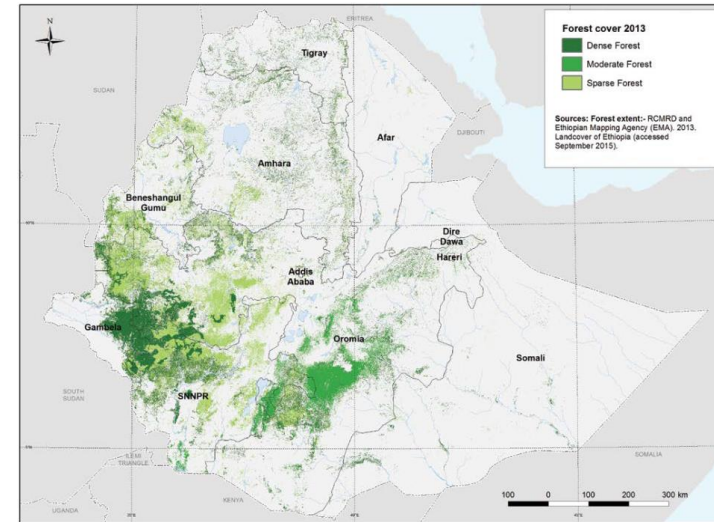
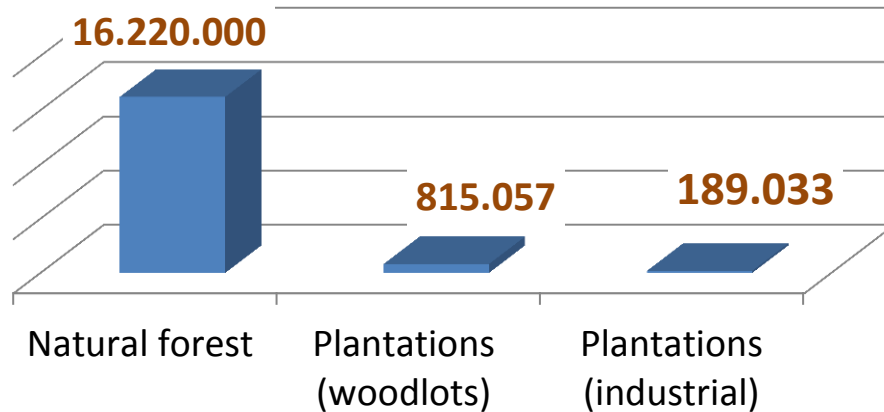


Figure 2: Summary of forest contributions to the national economy, 2012-13

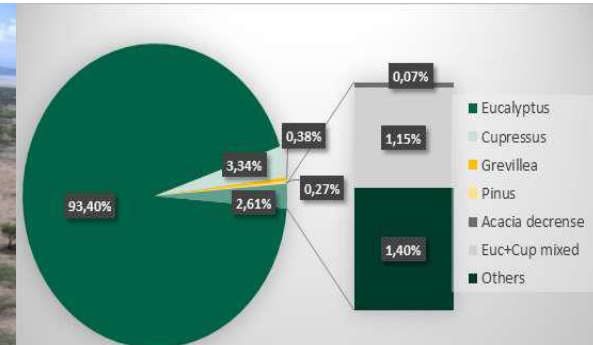


## 2. Forest Resources contd.

Forests in Ethiopia include dense forests in high-rainfall areas to dense woodlands in drylands, covering in total 15.5 % of the land area (MEFCC, 2015).



- Smallholder plantations are expanding.
- Most farmers describe trees around their homestead as ‘life saviour’, ‘safety net,’ or ‘tree bank’ as it is converted easily and quickly to cash whenever needed.
- Eucalyptus has become one of the most important livelihood sources for rural households. Eucalyptus production is rapidly expanding in every regions of the country. .



## 2. Forest Resources contd.

### Major challenges in forest development

Despite, their actual and potential socio-economic and ecological importance, forest resources are facing severe challenges

- Deforestation and forest degradation.
- Population pressure & the increasing need for agricultural land
- Over grazing (Free grazing).
- Bush encroachment and invasion of alien species
- Improper resource utilization
- Lack of land use planning
- Poor afforestation/reforestation program

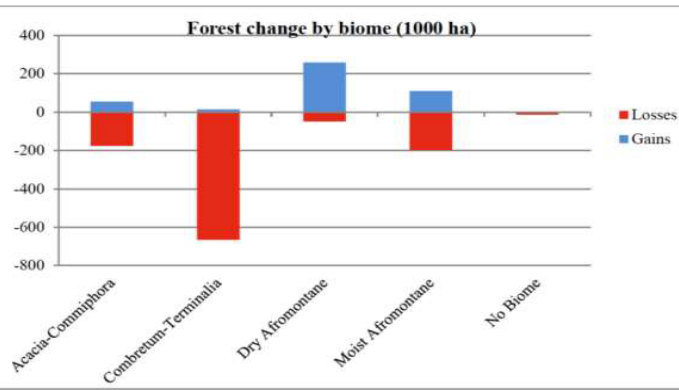


Photo: F. Bongers

# Biodiversity loss, siltation, desertification

The Red List of Endemic Trees & Shrubs of Ethiopia and Eritrea

**IUCN Red list species in Ethiopia. LONG LIST OF SPECIES !!!**

Status of Endangered Indigenous Fruit Trees in Ethiopia



BBC

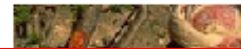
NEWS

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Menu

## Frankincense tree facing uncertain future

21 December 11 00:09 GMT



Frankincense production is expected to halve in 15- 20 years" (Eshete, 2011).

s story - faces an

rant resin could decline of trees in the *Boswellia* have been published in ume industry. It has *wellia papyifera*] it is

under threat," explained co-author Frans Bongers, an ecologist at

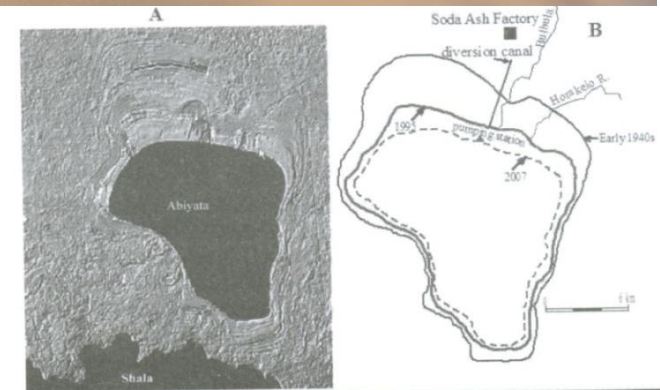


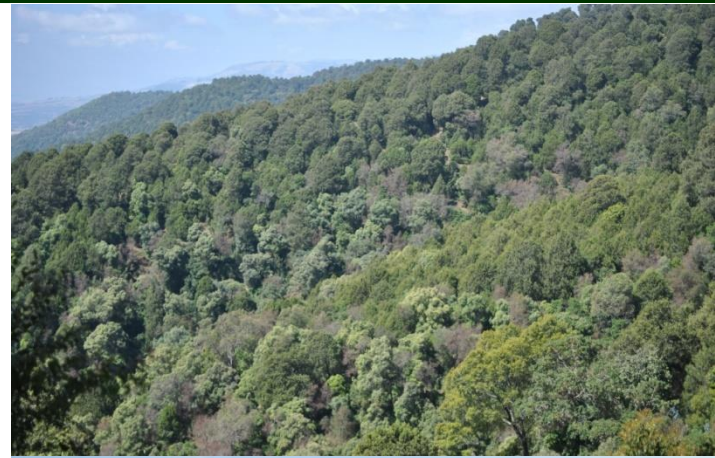
Figure 2. Recession of Lake Abiyata: A) enhanced satellite image showing different strandlines representing shorelines at different times; B) reconstructed shoreline positions at different years.

### 3. Rehabilitation of degraded lands with area enclosure

Various forms of agroforestry, reforestation/afforestation, PFM, area enclosure, and woodlot development are popular strategies of restoration observed today in Ethiopia

#### ***Rehabilitation interventions***

- The initial step in the rehabilitation of denuded and degraded lands was the establishment of area enclosures on PFM/communal land.
- After site selection, rehabilitation measures including various activities: reforestation, planting of grass tufts, building of soil erosion control structures, construction of micro catchments and enrichment planting, of degraded areas with valuable species are conducted.
- There are best practices in different parts of the country.

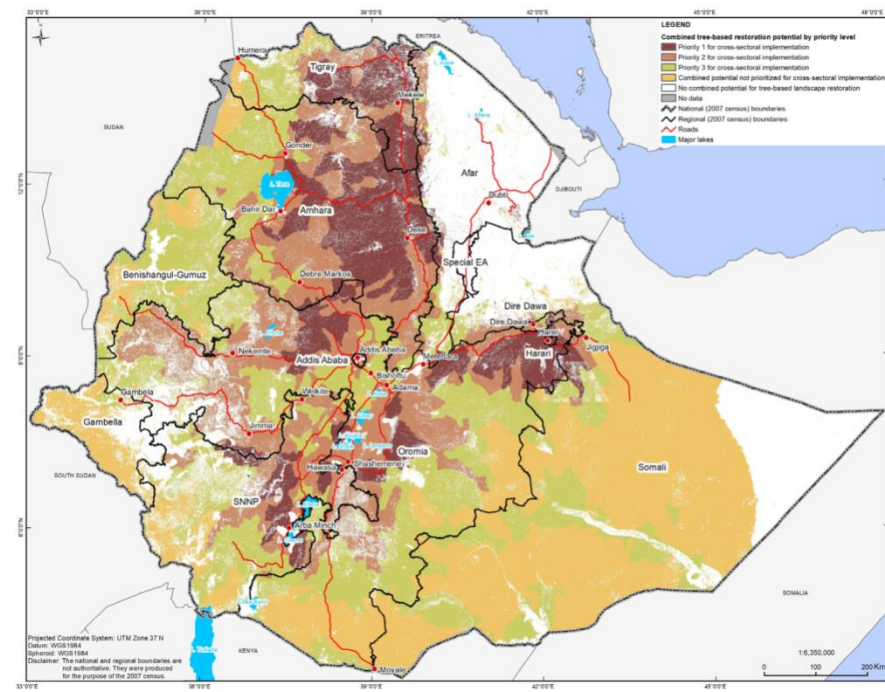
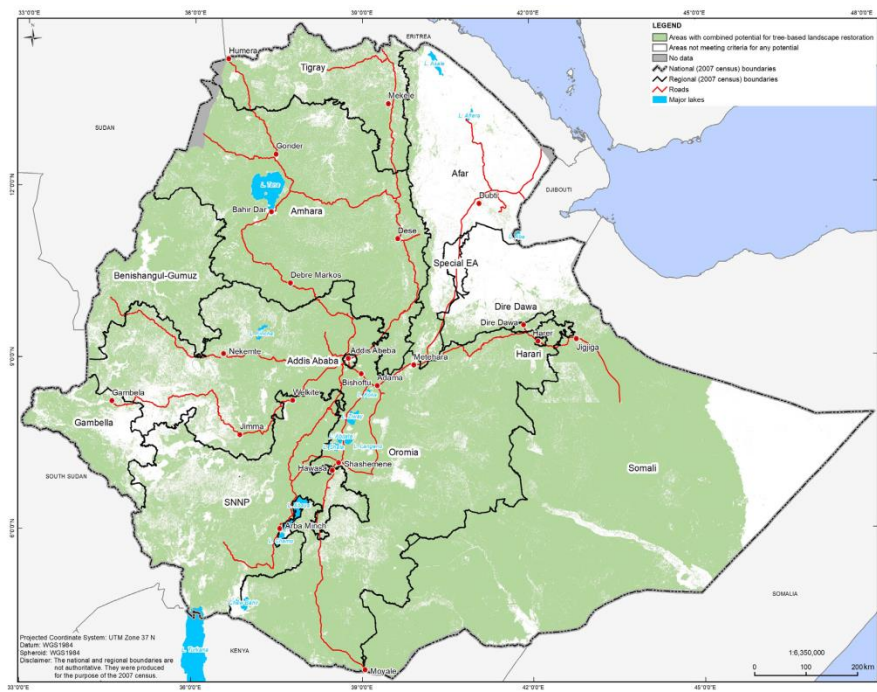


(Tigabu et al.,)

# 3.1. National Tree-Based Landscape Restoration

It has been mapped eight tree-based landscape restoration options:

1. Restoration of secondary forests
2. Restocking of degraded natural forests
3. Agri-silviculture and agro-silvo-pastoralism
4. Silvo-pastoralism
5. Woodlots and home gardens
6. Commercial plantations for products other than industrial roundwood
7. Buffer plantations around protected areas and national forest priority areas
8. Tree-based buffer zones along rivers, lakes, and reservoirs





## 4. Conclusion

- Forest resources have great socio-economic and ecological importance in Ethiopia.
- Despite their importance, these resources have been subjected to severe degradation.
- The general lack of awareness among policy makers and associated institutional constraints, are negatively affecting sustainable economic use of forest resources.
- Several R&D efforts have been underway to improve forest management and sustainability in the country.
- There are encouraging efforts to promote landscape restoration in Ethiopia: ambitious restoration targets prepared, 10 years strategy (NFSDP), availability of best practices, international partnership increased, awareness have been created, etc..



# IUFRO

Interconnecting  
Forests, Science and People

A photograph showing a group of diverse people's hands joined together in a circle, symbolizing unity and teamwork.

**Thank you**