

# ARBONETH

## The Ethiopian Arboretum Network

01/2015 – 12/2018

### What is ARBONETH?

The Ethiopian Arboretum Network project (ARBONETH) aims to create an alliance of sustainability, nature conservation, education and research - in particular on the basis of the (re-)establishment of arboreturns, nurseries and herbaria in Wondo Genet and Haramaya and through the exchange in the network.

The Conference "Building Capacity for Botanic Garden Management in Ethiopia", organized by The Botanic Gardens Conservation International (BGCI) and the Ethiopian Biodiversity Institute (EIB), aimed to lay the foundation for a network of botanic gardens in Ethiopia.



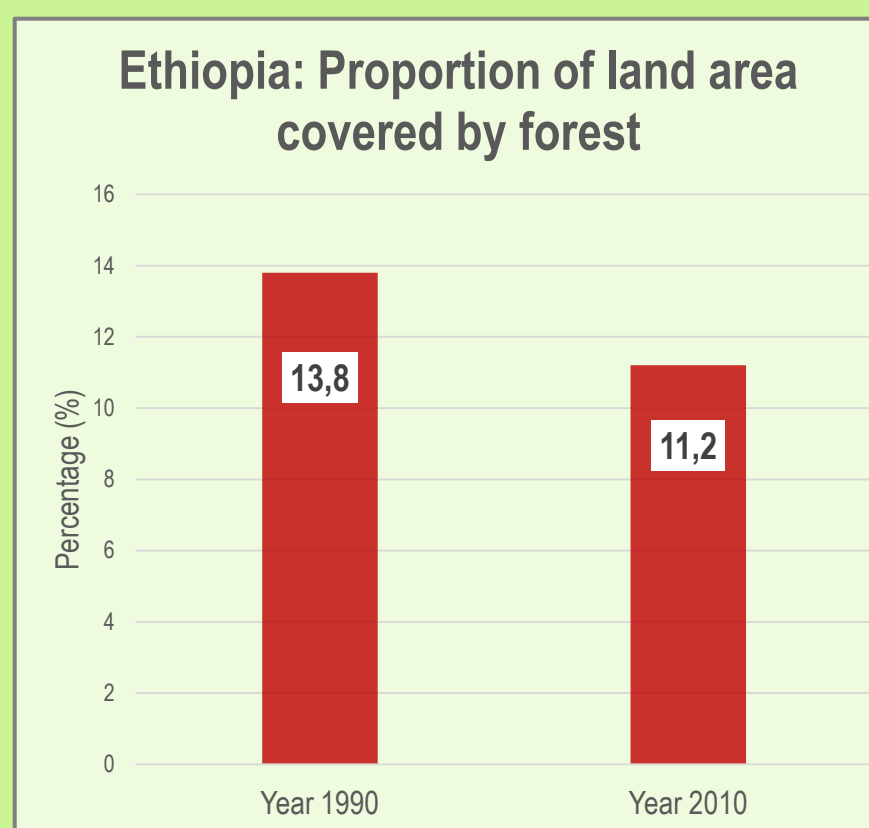
Furthermore, the cooperation with the EIB and the largest botanical garden in Ethiopia (Gulele Botanic Garden) allows to create the necessary capacity to meet the challenges of biodiversity loss and the loss of habitats in a changing world at the three selected university locations: Wondo Genet College, Addis Ababa University and the University Haramaya.



Further cooperation with experts from East Africa (other botanic gardens in Ethiopia, East African Herbarium, etc.), Bonn University (Germany), Oxford University (England) and the BGCI network will help to firmly establish ARBONETH as a sustainable institution.

### Ethiopian Forest – A threatened natural resource

Forest is an essential element for the maintenance of the complex biodiversity as well as the ecosystem functions in Ethiopia and operates as an important producer as for instance of harvestable fruits. Moreover forest as a natural resource possesses important functions in the prevention of erosion and simultaneously is affecting positively climate conditions.



Despite all that, the proportion of land area covered by forest in Federal Democratic Republic of Ethiopia decreased alarmingly from 13.8 percentage in 1990 to 11.2 percentage in 2010. The natural Ethiopian forest is threaten by habitat destruction, deforestation, decline in regeneration, alien invasive species, forest fire, climate change and vegetation clearance for agriculture and infrastructure.

(Sources: GOVERNMENT OF THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA 2005; UNITED NATIONS MDG INDICATORS 2011)

### Global Strategy for Plant Conservation

The Global Strategy for Plant Conservation (GSPC) is a cross-cutting programme of the Convention on Biological Diversity (CBD). It includes 16 global targets set for 2020. The aim of the GSPC is to halt the continuing loss of plant diversity and to secure a positive, sustainable future where human activities support the diversity of plant life, and where in turn the diversity of plants support and improve our livelihoods and well-being.

#### Objective I: Plant diversity is well understood, documented and recognized

- **Target 1:** An online Flora of all known plants.
- **Target 2:** An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action.
- **Target 3:** Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared.

#### Objective II: Plant diversity is urgently and effectively conserved

- **Target 4:** At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration.
- **Target 5:** At least 75 per cent of the most important areas for plant diversity of each ecological region protected, with effective management in place for conserving plants and their genetic diversity.
- **Target 6:** At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity.
- **Target 7:** At least 75 per cent of known threatened plant species conserved *in situ*.
- **Target 8:** At least 75 per cent of threatened plant species in *ex situ*-collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programmes.
- **Target 9:** 70 per cent of the genetic diversity of crops including their wild relatives and other socio-economically valuable plant species conserved, while respecting, preserving and maintaining associated indigenous and local knowledge.
- **Target 10:** Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded.

#### Objective III: Plant diversity is used in a sustainable and equitable manner

- **Target 11:** No species of wild flora endangered by international trade.
- **Target 12:** All wild-harvested plant-based products sourced sustainably.
- **Target 13:** Indigenous and local knowledge, innovations and practices associated with plant resources, maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care.

#### Objective IV: Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on earth is promoted

- **Target 14:** The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes.

#### Objective V: The capacities and public engagement necessary to implement the Strategy have been developed

- **Target 15:** The number of trained people working with appropriate facilities sufficient according to national needs, to achieve the targets of this Strategy.
- **Target 16:** Institutions, networks and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy.

### An exciting way for nature conservation in Ethiopia

#### ARBOPRO

Wondo Genet College Arboretum Project  
accomplished (09.2013-05.2014)

##### Partners:

Addis Ababa University, Hawassa University, Wondo Genet College of Forestry and Natural Resources, University of Oxford, University of Hamburg, National Museum of Kenya, Botanic Garden Conservation Int.

Funded by Federal Ministry of Education and Research (BMBF)

#### ARBONETH

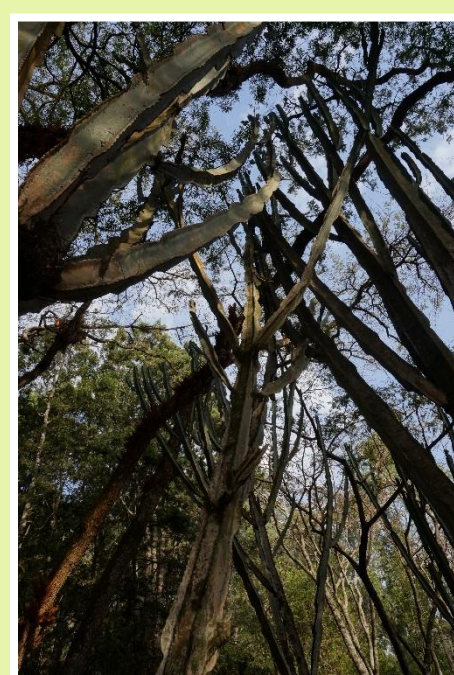
The Ethiopian Arboretum  
Network

01.2015 - 12.2018

##### Partners:

Addis Ababa University, Hawassa University, Haramaya University, Wondo Genet College of Forestry and Natural Resources, Botanic Garden Conservation Int., University of Oxford, University of Hamburg, Federal Ministry for Economic Cooperation and Development, German Academic Exchange Service (DAAD)

### Objectives of ARBONETH



- ➡ establishment of a biodiversity research network in Ethiopia
- ➡ alliance of biodiversity management and sustainable use of resources
- ➡ cooperation between several international scientists and university institutions in Ethiopia (Wondo Genet College, Addis Ababa University and the University Haramaya)
- ➡ promoting international exchanges and further education of students and staff of partner institutions to actively use a network of arboreta, herbaria, nurseries and institutions for national biodiversity management
- ➡ training and workshops (e.g. para-ecologist programme)
- ➡ reconstruction of arboreturns, nurseries and herbaria

### ARBONETH – Project Examples

#### Para-Ecologist Programme

At the Wondo Genet College for Forestry and Natural Resources of the Hawassa University, a para-ecologist programme is developed by ARBONETH. The para-ecologists will support scientists as well as ensure that their local environmental knowledge will be integrated into the academic research.



(Source: PARAECOLOGIST.ORG 2015)

#### Biodiversity Research in Theory & Practice

The 10-day training "Biodiversity acquisition, management and *ex situ*-conservation", taking place at the Hawassa University and the Wondo Genet College in 2015 and 2017, shall provide theoretical knowledge of current biodiversity-related topics, diversity acquisition, forms of biodiversity as well as measuring and evaluating of biodiversity. In addition, practical knowledge in acquisition methods, data processing and data analysis will be taught.

#### ARBONETHpartners:



#### ARBONETHdonors:

#### Contact:

The Wondo Genet College Staff  
or

Dr. Peter Borchardt  
c/o Hamburg University  
WGARBONETH@GMAIL.COM