

**INSTITUTE OF  
BIODIVERSITY  
CONSERVATION**  
*Bale Goba Medicinal  
Plants  
Field Gene Bank*

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*Lobelia rhynchoptalum* (Lobeliaceae)  
Treeless Afroalpine Grassland & Moorland  
Ecosystem, Senatti plateau (> 3400 m.a.s.l), BMNP

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## Introduction

The Bale Mountains National Park (BMNP) and its surroundings possess a unique and diverse flora and fauna. Regarding the plant genetic resources, recent findings showed that there are 1650 plant species of which 177 are endemic to Ethiopia, and 337 species are used as medicine by local people out of which 24 species of the medicinal plants are endemic to Ethiopia.

In Ethiopia about 80 % of human population and 90% of livestock rely on traditional medicine. Medicinal plants are also seen as an economic commodity for some members of the society who make their livelihoods on their collection, trade or through use for treating patients as traditional medical practitioners/healers. However, the medicinal plant diversity is being depleted due to man-made and natural calamities.

In light of the importance of these resources that provide the health care needs for the majority of human and livestock population in Ethiopia, and also the fact that medicinal plants could be used as source of income, the Institute of Biodiversity Conservation (IBC) has initiated the development of a World Bank supported Project called Conservation and Sustainable Use of Medicinal Plants Project (CSMPP) in October 2001 with relevant stakeholders.

In order to salvage and the medicinal plants of the BMNP and its surroundings, and as well as those which are grown in similar agro-ecological zones of the country , a Field Gene Bank (FGB) was established with the financial support of CSMPP at Bale Goba to conserve threatened, endangered and rare medicinal plant species.



### The Field Gene Bank

Bale Goba Medicinal Plants Field Gene Bank (FGB) is situated near Goba town in the Regional Government of Oromia, around 458 km south of Addis Ababa. It is located at

40°28'3"E and 6°58'39"N. Its average altitude is around 2722 m.a.s.l The area of the FGB is 30,000m<sup>2</sup> (3ha).The site is located around 3.5 km from Goba town on the way towards Dello- Mena. It is near the River *Togona* which provides irrigation water to the FGB. The FGB is subdivided into blocks to accommodate plants with different habits. i.e. annual and perennial herbs, shrubs and trees. There are also blocks for nursery and shade loving plants.

The FGB was established in August 2004 to conserve threatened, rare and endemic medicinal plants found in and around BMNP and other other medicinal plants collected from other highlands of the country (> 2000 m.a.s.l) as well as to complement the *in-situ* conservation which has been conducted by Oromia Agricultural & Rural Development Bureau of the Oromia Regional Government.

*Traditional Healers from Dinsho District struggling to collect medicinal plant from a rocky mountain*



## Achievements

IBC with traditional healers of Adaba, Dodola, Sinnana-Dinsho, Goba and Mena-Angetu districts/wereda prioritized the medicinal plant species and the areas from which the materials are to be collected. In addition to this, the biological survey report of National Herbarium, Addis Ababa University, and as well as the threatened species listed by graduate students of the department of Biology, Addis Ababa University, were given due

attention during the collection of medicinal plants.

***Collection priorities were given for:-***

- ◆ Threatened, rare and endemic medicinal plants found in and around BMNP.
- ◆ From the traditional healer's perspective, areas that serve as a major source of material for traditional healers in major towns were also included in the collection sites.
- ◆ The area where there is fast deforestation is another criteria to choose the collection sites.
- ◆ Goba and its surroundings were also included in the collection sites to create link with the communities in the vicinity.

So far 248 medicinal plant accessions were collected in three collection missions from Adaba, Sinnana- Dinsho, Mena-Angetu and Goba in collaboration with the technical assistant of the FGB and with the traditional healers of each Wereda. Among the 248 collected medicinal plant accessions 109 were Herbs, 79 shrubs, 39 trees and 26 were climbers. Currently, a total of 127 herbarium specimens were collected and handed over to the National Herbarium, Addis Ababa University, for authentication and taxonomic identification.

Part of the FGB is reserved for the traditional healers of Goba wereda to plant their own collection of medicinal plants and for the plantation of indigenous tree species like *Hagenia abyssinica*, *Afrocarpus falcatus*, *Olea europaea* and *Juniperus procera* and others

## Future Plans

- ◆ Collection of threatened, rare and endemic medicinal plants of the country, particularly those that grow within the altitudinal range of 2500 m.a.s.l – 3500 m.a.s.l., with the assumption that these medicinal plants will survive at an altitude of 2800 m.a. s. l
- ◆ Popularize the FGB to various stakeholders in order to strengthen and foster the integrated and sustainable utilization of medicinal plant genetic resources of the country.
- ◆ Complete the taxonomic identification of the medicinal plants conserved in the FGB.

*Partial view of the Field Gene Bank layout*

