

# **CONSERVATION AND SUSTAINABLE USE OF MEDICINAL PLANTS PROJECT (CSMPP)**

## **INTRODUCTION**

Medicinal plants and traditional medicine play an important role in the health care system of most developing countries. In Ethiopia about 80% of human population and 90% of livestock rely on traditional medicine. The traditional health care practice is mainly dependent on medicinal plants collected from the wild. In spite of this, the medicinal plant biodiversity is being depleted due to man-made and natural calamities. Moreover, the indigenous knowledge associated with the conservation and use of medicinal plants is also disappearing at an alarming rate.

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 sources of revenue for farmers, the Institute of Biodiversity Conservation (IBC) has initiated the development of a project on Conservation and Sustainable Use of Medicinal Plants (CSMPP) in collaboration with relevant stakeholders in October 2001.

IBC was identified as the lead-implementing agency to coordinate and facilitate the implementation processes while other collaborating institutions are involved in the implementation of the main project. These institutions are:

- The Ethiopian Health and Nutrition Research Institute (EHNRI).
- The Ethiopian Science and Technology Commission (ESTC).
- The Oromiya Bureau of Agricultural and Rural Development (OBARD).
- The Traditional Healers Association (THA)
- The former Ethiopian Wild Life Conservation Organization (EWCO)
- Essential Oils Research Center (EORC)

### **Addis Ababa University**

- Faculty of Veterinary Medicine (FVM).
- Institute of Development Research (IDR)
- The National Herbarium (NH)
- Medical Faculty (MF)
- The School of Pharmacy (SOP)
- Department of Chemistry
- Department of Biology

## **PROJECT OBJECTIVES**

The overall objective of the project is to initiate and support for conservation, management and sustainable utilization of medicinal plants for human and livestock health care in Ethiopia.

The global environmental objective of the project is to promote in-situ conservation and sustainable uses of medicinal plants in and around site of global significance – the Bale Mountain National Park.

### **Project components and major activities**

*The project has three components that consist of different activities:*

#### **1. Institutional Strengthening, Human Resource Development, and Project Monitoring & Evaluation (IDA credit)**

- 1.1. Establishing of Project Coordination and Monitoring Unit (PCMU).
- 1.2. Strengthening institutional capacity of IBC, the lead implementing agency.
- 1.3. Developing human resource capacity of collaborating institutions for implementing project activities.
- 1.4. Establishing medicinal plants field gene bank and developing Intellectual Property Rights (IPR) policy guidelines.
  - 1.3.1. Support establishment of medicinal plant field gene bank and strengthen Traditional Healers Association (THA).
  - 1.3.2. Support ESTC for developing IPR guidelines with participation of THA to share their knowledge on traditional medicine.

#### **2. Studies, Research, and Data Base Development (IDA credit)**

- 2.1. Develop methods to collect, analyze and interpret quantitative data on socio-economic benefits derived from medicinal plants in human & livestock health care at the national level.
- 2.2. Conduct ethno medical survey to explore utilization of medicinal plants and traditional healthcare practices for the prevention of HIV and mitigation of adverse impacts of AIDS.
- 2.3. Conduct research on the propagation and cultivation methods of selected indigenous medicinal plants used for human and livestock diseases.
- 2.4. Photochemical studies including, extraction, standardization, safety and efficacy testing, dosage determination and formulation.
- 2.5. Development of a National Medicinal Plants Database (NMDP).

### **3. *In-situ* Conservation and Sustainable Use of Medicinal Plants in Bale Mountains Area (GEF grant)**

IBC has been leading the implementation of this project component with the collaboration and assistance of OBARD, NH, IDR, and other relevant stakeholders. The detailed activities are:

- 3.1. On-Site Management
  - 3.1.1. An in-depth socio-economic survey and assessment to carry out with the view to (i) identify villagers/users having greatest impact on wild populations of medicinal plants through harvesting and other activities and (ii) identify villagers/farmers for on-farm pilot propagation & cultivation trials of medicinal plants to remove pressure from wild populations.
  - 3.1.2. An in-depth biological survey and assessment of *in-situ* and *ex-situ* conservation, zoning of key areas within the Park
- 3.2. Development and implementation of appropriate management options and guidelines for sustainable harvesting of medicinal plants and their products.
- 3.3. Monitoring to assess:
  - 3.3.1 The preliminary impact of harvesting of medicinal plants in permit areas;
  - 3.3.2 The impact of management interventions & harvesting guidelines in the Park;
  - 3.3.3 Project interventions in protecting threatened/endangered medicinal plant species;
  - 3.3.4 Marketed and threatened/endangered medicinal plant species; and
  - 3.3.5 Marketing and utilization of medicinal plants by THPs in and around the Bale Mountains National Park (BMNP) as well as in other parts of the country.
- 3.4. Piloting of farmer based cultivation trials for a selected number of threatened and indigenous medicinal plant species on the boundaries, in home gardens and in buffer zones of the National Park.
- 3.5. Training of (a) relevant personnel in the conservation and management of medicinal plants in the Park and adjacent forests, and (b) farmers for pilot propagation and cultivation and management.
- 3.6. Public education and mass awareness campaigns on the relevance of conservation and management programs of medicinal plants and their importance in Ethiopia's biodiversity and long term health care needs.

## **EXPECTED OUTPUT**

At the end of the project period the following outputs are expected.

- ❖ Medicinal plants effective for the treatment of 3 major human diseases and 2 major livestock diseases will be confirmed and documented.
- ❖ Assessment of economic benefits derived from use of medicinal plants in human and livestock healthcare on a national level and export potential of medicinal plants will be conducted.
- ❖ Five medicinal plants tested for safety, efficacy, and dosage and formulation, both for human and livestock will be completed.
- ❖ National database will be established building upon the medicinal plants identified for dosage formulation and also from Bale mountains survey.
- ❖ Protected core zones and harvesting zones will be identified in the Bale National park area on the basis of the socio-economic and biological survey results in the area.
- ❖ Guidelines will be developed to promote the sharing of traditional knowledge associated with the use of medicinal plants.
- ❖ Ecosystem based conservation will be implemented in the Bale Mountains National Park Area.

## **PROJECT FUNDING**

The proposed project budget was initially 5.2 million US Dollars of which USD 2.597 million is credit from IDA, USDD 1.802 million a grant from the GEF and USD 0.777 million from the Government of Ethiopia as a matching fund. The Project became effective as of October 2001.

## **PROJECT IMPLEMENTATION ARRANGEMENT**

The project period is four years for credit and five years for grant. A longer implementation period is required for the conservation activities, due to time required to complete biodiversity surveys, develop and implement medicinal plants management guidelines, and determine and monitor sustainable harvesting levels for medicinal plants in BMNP.

A Project Coordination and Monitoring Unit (PCMU) has been set up within IBC for the duration of the Project and the Unit will coordinate activities for the project and ensure compliance with IDA and IBC reporting requirements. The PCMU is headed by a full time Project Coordinator (PC) who is accountable to the General Manager of the IBC. In addition to the PC, the PCMU has an Accounting and Disbursement specialist, a

Procurement specialist, a Monitoring and Evaluation specialist, and administrative staff including a secretary and drivers. The PCMU is assisted by Project Implementation Committee (PIC) drawn from heads of implementing institutions.

The basis for collaboration between IBC and the collaborating institutions/agencies is Memorandum of Understanding (MOU). IBC signed the MOU with the major implementing institutions that clearly identifies research/studies, financing arrangements and sets targets for completion of activities.

## **MONITORING AND EVALUATION**

The project monitoring and evaluation will be regularly undertaken by the following:

- Project Coordinating and Monitoring Unit (PCMU)      Continuous
- Heads of Collaborating Departments/Institutions      Continuous
- Project Implementation Committee (PIC)      Monthly and Quarterly
- World Bank and GEF Mission      Quarterly

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