Update Project: April 2021

1. Indigenous tree species seedling raising and distribution

Indigenous trees referred to as native trees or plants that are plants aboriginal to a given area in geologic time. The indigenous plant species habitually survive longer than non-indigenous species and do not need much care because they are hardier and more disease resistant. Moreover, planting indigenous trees is of great value to the surrounding, the soil and also helps in the preservation of such tree especially the ones that are threatened due to deforestation. Indigenous tress includes plants that developed or existed for many years in an area. Indigenous tree has great value and beneficial when planted which we have highlighted such as:

- Low cost of maintenance
- Beauty
- Healthy place for people
- Improve climate condition
- Water conservation
- Wildlife habitat

In collaboration with Jimma Botanic Garden the project has raised over 15,000 indigenous tree and shrub species seedling composed of eight species (Table 1). These species are selected for dual purposes: (1) restoration of degraded areas in the project area, and (2) conserving the species. The raised species are always top quality, fully rooted, and fits for degraded land restoration.

Table 1: lists of indigenous tree and shrub species raised and distributed to the community

Scientific Name	**Family**	**Habit**
Acacia abyssinica Hochst ex Benth.	Fabaceae	Tree
Bersema abyssinica Fresen.	Melianthaceae	Tree
Cordia africana L.	Boraginaceae	Tree
Ekebergia capensis Sparrm.	Meliaceae	Tree
Entada abyssinica Steud. ex A. Rich.	Fabaceae	Tree
Millettia ferruginea (Hochst.) Bak.	Fabaceae	Tree
Albiza grandibracteata Taub.	Fabaceae	Tree
Dodonaea angustifolia L f.	Sapindaceae	Shrub

The Rufford Foundation project covers all costs related to nursery operations while the botanic garden provides nursery site, seed and nursery management responsibility. The nursery site consistently delivers quality bare root and container stock, and extremely healthy seedlings.

- **Seedling production**

We have produced over 15000 seedlings comprised of eight different indigenous species that are used for a variety of purposes.

- **Seedling distributions**

The objective of this activity was to distribute seedlings to different sites to be planted for restoring degraded land (i.e., riverbanks) within the project catchment area. The raised seedlings were freely distributed to local community members specifically farmers around the project area-catchment areas of Boye wetland. We managed to distribute the entire tree seedlings in time before seasons suitable for seedling planting.

2. Community based environment management action Planning

Community based environmental action planning (CBEAP) is a stripped down and simple participatory approach that has been used successfully over several years, in a variety of forms, to introduce a greater degree of participation in environmental planning. CBEAP is a proven and practical way to introduce greater accountability and community ownership into ongoing institutional processes, such as development planning, and to build capacity for creating and implementing development project. This project has used CBEAP guide designed for practitioners who are involved in environmental planning at community level and who want to do things better. The concept of CBEAP is borrows from IUCN's experiences in participatory environmental work in the eastern Africa region. The IUCN guide provides a quick and hands-on toolkit that is easy to use, and which can help introduce simple but effective tools for participation within institutions that aim to become more accountable. CBEAP approach empowers local communities to undertake conservation and development initiatives that fit with their unique culture and systems.

Based on the IUCN CEAP guideline, the training has organised into five chapters: (1) brief background to CEAP, its evolution and benefits of engaging in participatory approaches, (2) lists the key principles and values of CEAP, (3) Describes the CEAP process in details by outlining the key steps to follow and provides a list of complimentary tools that can be used to support the process, (4) captured some of

the key lessons, (5) describes some of the key challenges encountered in CEAP process, and (6) developed Community based environmental action planning (CBEAP).

The training workshop was held at the Jimma University College of Agriculture Veterinary Medicine Ethiopia from Friday 15th to Saturday 16thJanuary2021.

Attendance

The invited institutions, which are listed below are mainly from research and data gathering institutes, apart from some exceptions belonging to water management or regulating bodies. Because of Covid-19 protocol, the number of participants kept small (Table 2).

Table 2: Lists of training workshop participants

No	Name
1	Mrs. ZernabaGidi
2	Mrs. Meskerem Kebede
3	Mr. GutemaHayder
4	Mr. Keder A/Mecha
5	Mr. Feati Moggaa
6	Dr. Woyesa Garedew
7	Mr. Munawar Hasen
8	Mr. Dereje Bekele
9	Dr. Tariku Mekonnen
10	Dr. Tibebu Alemu

Opening
The overall goal of the training workshop was to introduce participants the existing condition on wetland biodiversity and challenges of conserving wetland ecosystem in Ethiopia.

The training included the following topics:

- Urbanisation and nature conservation: the case of an emerging Ethiopian town of Jimma.
- Nature conservation and flagship species for CBCAP.
- Training on community-based conservation action planning (CBCAP).

Vice Dean of College of Agriculture and Veterinary Medicine, Dr Weyessa Garedew thanked Mr Abebayehu for organising the workshops and in his speech Dr Weyessa noted that natural resource conservation particularly wetland degradation is a critical issue in Ethiopia. Finally, he wished all participants a good and successful training workshop.

Afterwards Mr Abebayehu introduced the main activities and objectives of the workshop and the workshop was hosted by the Rufford Foundation and Jimma University.

Training workshop sessions

Section 1: Status of nature in Jimma Town setting: From where to where?
Mr Abebayehu introduced the participants of the workshop into the topic of past, present and future status of nature in Jimma town area by showing the results of his research output. Some highlights of his presentation were:

- Land use change and its influence on ecological process, ecosystem service, biodiversity and landscape patterns.
- Urbanisation and its effect on nature.
- The use of geospatial technology for nature conservation.
- In his presentation he also addressed the effects of land use change in the past 35 years and future changes and expected effects on natural resources.
- Ecological impacts of spatial urban expansion and related problem on natural habitats in Jimma town.
- Finally, he addressed conservation priority areas selection and the values of conservation.

Discussion on first presentation:
In your presentation you state that Boye suitable area for conservation, but the currently the area is highly degraded so how this site is suitable for future conservation?
Answer: - Yes, the area is currently degraded, in association with urbanisation but the wetland is best site for future conservation following restoration.

Section 2: Flagship Species and Nature Conservation
The third presenter was Dr Tariku whose presentation was focused on nature conservation, and he forwarded one question why we conserve nature? How we conserve the nature? The participant responds to the question, they stated that the

main reason that we conserve nature is associated with its value, for future generation and wildlife has the right to live, Dr Tariku in his presentation stressed the ecosystem and economic values of wetland, main challenges of wetland degradation in Ethiopia, challenges of wetland conservation, common flagship species in the Boye wetland and their conservation status. He further noted that wattled crane is one of flagship species to conserve Boye wetland.

The participant stated that the presence of flagship species is really essential for conserving the whole ecosystem and biodiversity through drawing community's attention towards the need to conserve them. They have tried to list lists of flagship species for Boye wetland where the Rufford project has been implemented.

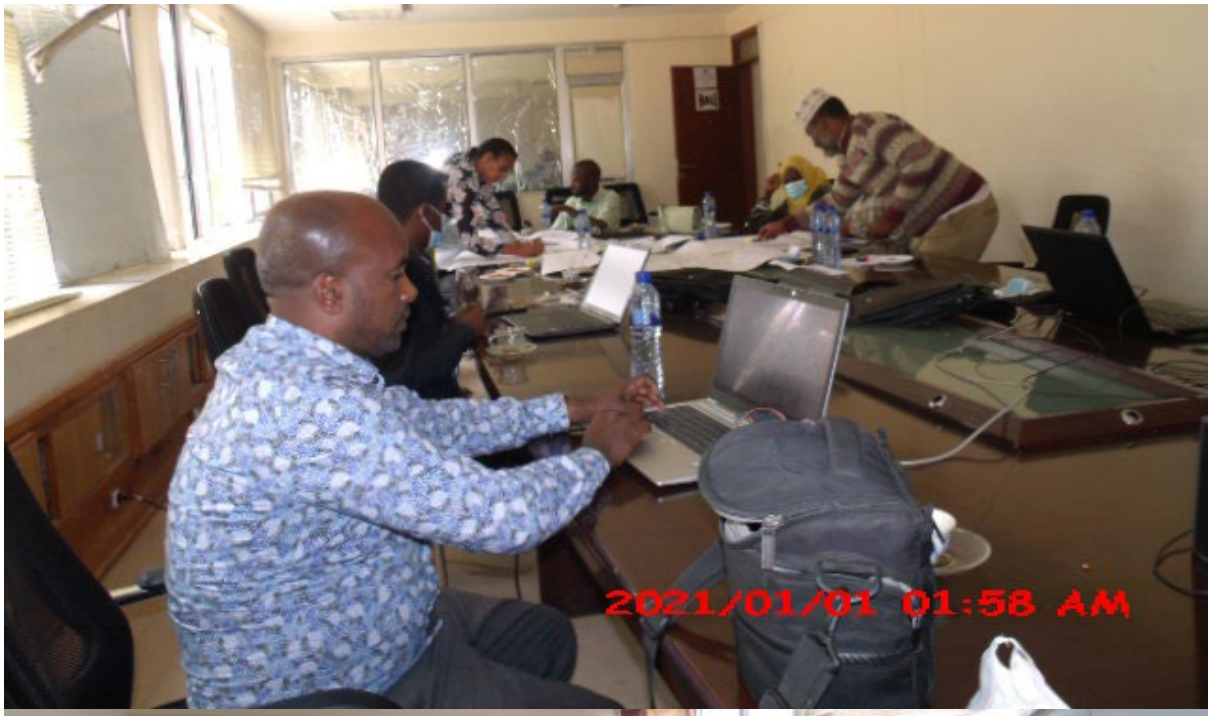
Section 3: Training on CEAP based on IUCN manual

The second section was on Community Environment Action Planning (CEAP) adopted from IUCN (2011)[1]. The section was delivered by Mr. Dereje Bekele[2]. The main focus includes:

- Core components of CEAP.
- Establishing CEAPs in an important contribution towards enhanced environmental management.
- Key principles of CEAP.
- Over views CEAP in line with UN sustainable development goals.
- Instructions for use before CEAP.
- Present situation map and its components.
- Visioning maps (5-10 years).
- Opportunities and problems in the landscape.
- Resource use and stakeholder's analysis.
- Developing action plans.

[1] IUCN (2011). Community Environmental Action Planning: A Guide for Practitioners. Nairobi, Kenya: IUCN ESARO office. iv + 16pp.

[2] Assistant Professor of Protected area and conflict management, Jimma University



Presentation on wetland management planning by participates

The training workshop participant has wetland conservation action planning that involve assessment and outline the concerns of Boye wetland and designing

strategic interventions to address concerns through planning. The participant mentioned the proposed action plan helps the community and other stakeholders to monitor and improve its commitment to minimising adverse impact on the wetland, interventions measures and fulfill responsibilities. The primary interventions proposed were:

- Boye wetlands has to be zoned and classified according to the levels of ecological, utilitarian, national and local significance with clearly defined ownership through legal reforms and managed sustainably on the basis of appropriate management mechanisms.
- Wetland management has to be integrated into land use plans in Jimma town besides restoration.
- Establish wetland management committees.

Participant's final word on the workshop

As a closing remark the participant invited to forward their feedback, accordingly the entire participant agreed that the workshop is very interesting and enjoyable particularly for those involved in the Awity River (one of the rivers which is source of water for Boye wetland) development and for those who are working on environmental protection sectors. Finally, the participant agrees to work with experts at JUCAVM and they recommended continuity of such practical type of workshop in the future. Finally, participant wishes to see the implementation of proposed interventions.

3. Research article

Research article on impacts has sent to internationally peer reviewed journal. Full article will be shed to Rufford once the article is published by journal.