

Reclaiming the Degraded Land through implementation of Landscape-based Land Restoration and Livelihood Diversification Strategies for (agro) Pastoral Communities of West Guji Zone, Southern Ethiopia

Start date – August 2019; Ending date – Dec 2021

S.N	Main Investigators	Qualification	Specialization	Contact address (e-mail)
1	Abreham Assefa	PhD	Plant Biology & Biodiversity Management	abrishasf@gmail.com
2	Abiyot Legesse	PhD	Sustainable natural resource management	abiyottura@gmail.com
3	Habtamu Temesegen	PhD	Land Resources management	habte023@du.edu.et
4	Achenef Tigabu	PhD	Agronomist	natitigabu.2011@gmail.com
5	Deribe Teshome	PhD	Sociologist	deresocio@gmail.com

Executive summary

Together with the adequate rainfall in the tropical highlands, naturally fertile volcanic materials derived soils are productive for agriculture under careful handling. Nevertheless, the varied country's agro-ecological zones and landscapes from fragile lowlands to high plateaus with a diverse rugged terrain, climatic variability characterized by erratic but erosive rainfall, outdated farming practices, population pressure and limited incentives for farmers inhibit productivity. Notwithstanding exemplary traditional efforts in some localities in Ethiopia, annual crop and animal husbandry are generally exploitative. Thus, together with large-scale agricultural land acquisition and investment, agroecological and topographic setup, mis-management of land uses in Ethiopia have caused continued land use/cover dynamics leading to land and water resources degradation. Restoration efforts were also seems less effective, as they were poorly integrative of various aspects.

Lack of institutional/sectoral, professional as well as information integration has been scrutinized the success of large number of research and development project out puts. Many international and national efforts have been contributing to capitalize infant integration efforts in developing countries. Like many developing nations, Ethiopia is facing several challenges in relation to Integrated River Basin Management (IRBM) activities. This is among the presumed underlying causes which has resulted food insecurity, land and water resources degradation and poor human well-being. Similarly problems related to IRBM are conspicuously observed in eastern escarpment of Abaya-Chamo Sub-Basin (ACSB). In line with this, it is hypothesized that

(a) rapid up- and midstream sub-basin degradation induced wetland deprivation and water quality deterioration are becoming serious problems in the basin since the 1950s which in turn worsen the water and other ecosystem provision and the livelihood of inhabitants by affecting water resource potentials and hydraulic infrastructures, (b) lack of knowledge and detailed database about resource potentials of the sub-basin made integrated and coordinated planning difficult in the basin, and (c) population increase, sector-based water and land resources management and top-down planning approaches are the underlying framework conditions contributing for unsustainable resource utilization observed today in the basin.

In order to investigate the aforementioned issues, the research, right from the proposal development and problem identification to the implementation, will employ and adhere to participatory, inter- and trans-disciplinary approaches. Gender issues will be the particular concern of the research.

Box 1: Summary of research components (Sub-thematic areas) and their respective objectives;

Sub-theme I: Determining the rate of change of forest resources of project area:

Team leader: Abiyot L. and Achenef T.

- ✓ Examine the current forest cover, level of deforestation and forest degradation in these district using Geo-spatial technology;

Sub-theme II: Investigation of nature and extent of dependence on forest for their livelihood and forest resource degradation in the study area;

Team Leaders: Achenef T. and Habtamu T.

- ✓ Assess drivers of deforestation and forest degradation which enables possible mitigation strategies

Sub-theme III: Estimating carbon pool of the forest resources of the area

Team leaders: Abrham A. & Habtamu T.

- ✓ Estimate the amount of carbon loss due to the prevailing forest degradation and deforestation in the area;

Sub-theme IV: Identification of alternative livelihood options and appropriate conservation and management measures:

Team leader: Achenef T.

- ✓ Explore potential resources base of the area and nexus between livelihood of the local people and forest resources of the area;