

6.1. Bioscience Research

Eastern part of Ethiopia is rich in plant, microbe and animal diversity. Biodiversity provides ecosystem services, and forms an integral part of the rural economy, providing subsistence, goods and medicines. However, research on biodiversity, particularly from the point of view of their ecology and conservation status; use to the local people and potentials for pharmaceuticals and industrial purposes; responses to abiotic and biotic stresses are lacking. As a result, biodiversity is being lost together with indigenous knowledge of people around them. The biosciences research sub-theme, therefore, set out a research priority to study 'Plant, Microbial and Animal Biodiversity' from the following specific project components stand point.

- Wildlife ecology, species diversity, genetic characterization and their interaction with humans and domestic animals in Eastern Ethiopia;
- Eco-epidemiology and transmission of parasites among human, domestic and wild animals in Eastern Ethiopia.;
- Microbial biodiversity (genetic, functional, etc. diversity);
- Ecological and ethno-botany of vegetations of different ecosystems of eastern Ethiopia;
- Phytochemical and bioactivity studies of ethno-medicinal plants, antioxidant properties;
- Evaluation of non-food plants for bio-fuel potential;
- Impact of climate change on plant performance;
- Marker assisted genetic diversity study of plants of economic importance;
- Human genetic variation from the perspective of health and demographic history.