Native woody plants for livelihood in Northern-Ethiopia: drivers of diversity and management constraints

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Introduction

The north western highlands of Ethiopia have a long history of intensive land use and deforestation.

Farmers in the area try to meet their biomass demand by growing trees in their farms. Native trees, their role for livelihoods, their niches in and around farms and their management have not been characterised for Northern Ethiopia.

Objectives

- Understand drivers of woody plant diversity in and around farms
- Characterise niches of woody plants in and around farms
- Characterise constraints of and opportunities for growing native trees

Materials and Methods

Survey of HH characteristics with pretested questionnaire
Inventory of woody plants in each of selected HH
Group and focus group discussion to prioritize NWP

interview   measurement

Study area

The study area is situated in the province of North Gondar in Ethiopia (lat. 12°31'2.87"N long. 37°31'24.37"E) Watersheds were selected according to the following criteria:
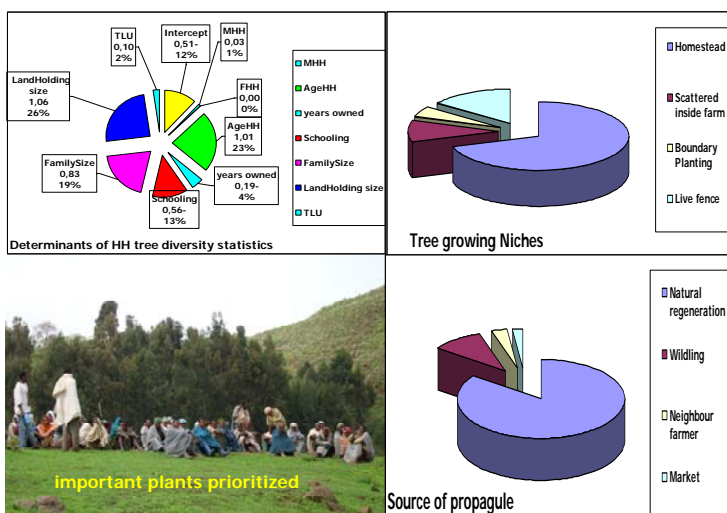Representativeness of much of the agroecology, location from the main road, being priority project area for the district office of agriculture to improve livelihood.

study area

Preliminary Results

➢ 60 NWP identified
➢ 2 – 53% of the variation in diversity observed was explained by wealth, age, gender, educational level of the households, and size of land holding
➢ Major tree growing niches: Homesteads, farms, livefence, and degraded plots
➢ Major purposes of tree growing: fodder, fuel, for sale, shade, soil improvement, beverage, construction, farm implement, compost
➢ Major constraints of tree growing: moisture stress, propagule supply and free grazing

Determinants of HH tree diversity statistics

Tree growing Niches

important plants prioritized

Source of propagule

Recommendations

Needs and solutions leading to improved survival of seedlings were identified. Diversity and abundance of trees on farms might be increased by using household socio-economic characteristics as extension entry points.