

**HOUSEHOLD PERCEPTION ABOUT *PROSOPIS JULIFLORA* AND ITS
EFFECT ON PASTORAL LIVELIHOOD DIVERSIFICATION
STRATEGY: THE CASE OF GEWANE DISTRICT IN AFAR
REGIONAL STATE, ETHIOPIA**

MOHAMMED JEMANEH SEID

Department of Agricultural Economics, School of Graduate Studies
Haramaya University, Ethiopia

ABSTRACT

Pastoralists' livelihood was threatened by *Prosopis* invasion of farm and pastor land in the study area of Afar region. Thus, this research paper aimed to deliver empirical evidence on the links between household perception regarding *Prosopis juliflora*, and pastoral livelihood diversification strategy by conducting a survey on pastoral system of production in Gewane district of Afar regional state, Ethiopia. The subsistence nature of livestock production in the study area suggested that infrastructure, credit access, fertilizers, improved seed variety and sustainable crop processing technologies were beyond the reach of most pastoralists and agro-pastoralists. The consequence was that in order to sustain their livelihood, households combat such challenge by diversification. Hence an increasing amount of land was invaded by *Prosopis* weed resulting in pastor land degradation and a loss of biodiversity. The research design followed a three-stage sampling procedure. A total of 150 respondents were selected randomly based on probability proportional to household size of the 5 kebeles from the district. This study determines in as a first step the pastoralists' perception regarding *Prosopis* to extract the positive side of the species as well as investigates factors that matter perception of the households using multinomial logit model (MLOGIT). In a second step the relation between livelihood diversification strategy and household perception regarding *Prosopis juliflora* as well as pastoral livelihood diversification determinants were empirically analyzed using two step Tobit regression model (IVTOBIT). The results indicate that the household perception vary widely over the sample, showing a significant positive effect on their livelihood diversification. Even if the majority of households prefer to stay on livestock production, some sample households began crop production with increasing returns. A strong positive correlation between the household perception regarding the species and their livelihood diversification strategy as well as complementarities was revealed between crop and livestock production. Accordingly these suggest that the likely perception of household and livelihood diversification is conducive for controlling species invasion, environmental and livelihood sustainability in the study area.

KEYWORDS: Afar pastoralists, Pastoral livelihood, *Prosopis juliflora*, MLOGIT and IVTOBIT