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Farmers' indigenous knowledge in managing and using *Jatropha curcas* in Bati district, Oromiya zone, Amhara region, Northeastern Ethiopia

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Statement of the Problem: *Jatropha* tree commonly planted in different parts of Ethiopia is believed to have economic, social and environmental functions in different ecological zones. The tree is mainly planted to serve as a hedge around homestead, protection of gardens from cattle and control of soil erosion; but these were not studied and documented.

Aim: The purpose of this study is to investigate experience of farmers in growing *Jatropha* and how their immense knowledge of *Jatropha* cultivation practices can be captured to improve such practices.

Methodology & Hypothetical Variables: The study used sample household individual interviews, focus group discussion (FGD) of growers and non-growers of *Jatropha*, and Key Informant Interview (KII). The KII includes local community leaders and district higher experts of various offices. Variables considered in the study include, gender, age, household size, level of education, landholding, and access to agricultural services such as extension and credit.

Findings: Farmers have experience in and knowledge of *Jatropha* cultivation and use for a maximum of 36 years. The main uses of the plant mentioned by farmers includes for live fence, soil conservation purpose, as income sources, local medication for human and for pest control. In addition of its uses farmers use the plant seeds for lighting purpose and also the plant accumulated pods and dropped leaves as a good source of fertilizer.

Conclusion: Farmers recognized such positive attribute of the plant as soil fertility improvement, and the intermediate benefit found from the plant thereof. However, for successful *Jatropha* plantation farmers' indigenous knowledge is also playing an indispensable role.

Recommendations: to improve the livelihoods of smallholder farmers, there is a need for introducing an agricultural policy promoting a complete package of incentives that will stimulate optimal exploitation and create awareness of the *Jatropha* plant by government.

Biography

Zufan Nezir studied degree in Rural Development and Agricultural Extension (MSc) and Agricultural Extension (BSc) at Haramay University. She has hands on practical experiences in agricultural extension and rural development field including, participatory planning, formulation, implementation, and follow-up of Rural Development Project in both the government and non government organizations. She has also immense experience of local community, capacity building, food security, civil society strengthens and watershed based project. She has over ten years of work experiences as a plan and program expert, Extension and Training expert, Community Development and Gender officer, saving and Credit officer and Monitoring and Evaluation officer.

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