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Community Perception towards the Major Drivers for Deforestation and Land Degradation of Choke Afro-alpine and Sub-afro alpine Ecosystem, Northwest Ethiopia

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Abstract: The Choke Mountains have several endangered and endemic wildlife species and provide important ecosystem services. Despite their environmental importance, the Choke Mountains are found in dangerous conditions. This raised the need for an evaluation of the community's perception of deforestation and its major drivers and suggested possible solutions in the Choke Mountains of northwestern Ethiopia. For this purpose, household surveys, key informant interviews, and focus group discussions were used. A total sample of 102 informants was used for this survey. A purposive sampling technique was applied to select the participants for in-depth interviews and focus group discussions. Both qualitative and quantitative data analyses were used. Computation of descriptive statistics such as mean, percentages, frequency, tables, figures, and graphs was applied to organize, analyze, and interpret the study. This study assessed smallholder agricultural land expansion, Fuel wood collection, population growth; encroachment, free grazing, high demand of construction wood, unplanned resettlement, unemployment, border conflict, lack of a strong forest protecting system, and drought were the serious causes of forest depletion reported by local communities. Loss of land productivity, Soil erosion, soil fertility decline, increasing wind velocity, rising temperature, and frequency of drought were the most perceived impacts of deforestation. Most of the farmers have a holistic understanding of forest cover change. Strengthening forest protection, improving soil and water conservation, enrichment planting, awareness creation, payment for ecosystem services, and zero grazing campaigns were mentioned as possible solutions to the current state of deforestation. Applications of Intervention measures, such as animal fattening, beekeeping, and fruit production can contribute to decreasing the deforestation causes and improve communities' livelihood. In addition, concerted efforts of conservation will ensure that the forests' ecosystems contribute to increased ecosystem services. The major drivers of deforestation should be addressed with government intervention to change dependency on forest resources, income sources of the people, and institutional set-up of the forestry sector. Overall, further reduction in anthropogenic pressure is urgent and crucial for the recovery of the afro-alpine vegetation and the interrelated endangered wildlife in the Choke Mountains.

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