



## **Synthesis of Research on Land Use and Land Cover Dynamics in the Ethiopian Highlands**

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Improving the understanding of land use and land cover dynamics can help in projecting future changes in land use and land cover and to more appropriate policy interventions for achieving better land management. Currently available catchment scale studies about land use and land cover change have previously not been synthesized at a larger scale for a more general understanding across the Ethiopian highlands. This review of land use changes attempts to provide an overview of the long term trend of land use and land cover changes in the Ethiopian highlands. The time considered for this review is from 1868-2008 which was divided into two time intervals. The first interval spans the period 1868-1980 and the second 1980-2008. It was found that there has been a substantial decline of shrublands, woodlands and forest cover and drastic expansion of cultivated land in the Ethiopian highlands from the 1860s to the 1980s. The land use and land cover change from 1980s-2000s showed continued decline of shrublands and forest cover, but improvements in vegetation cover in some areas. The expansion of cultivated land continued to very steep slopes and marginal lands. The land use and land cover change in the Ethiopian highlands has affected the basic natural resources, by causing surface runoff, decreased water retention capacity, decreased stream flow, loss of wetland and drying of lakes. Population growth in the densely populated Ethiopian highlands is one of the most critical drivers of the observed land cover dynamics because the livelihood of almost the entire rural population is dependent on agriculture. In the Ethiopian highlands, arable land expansion has reached the upper limit of the extent. Therefore, the livelihood condition of the growing population particularly in rural areas can only be met by increasing land productivity through intensification of agriculture and by diversifying the means of income such as by creating off-farm job opportunities.

**Key Words:** Land degradation; land use change; land cover change; Ethiopian highlands; Ethiopia.