



Assessment of Rainwater Management Practices and Land Use Land Cover Changes in The Meja Watershed, Jeldu District, Oromia, Ethiopia

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Abstract: Poor rainwater management (RWM) practices and resultant problems of land degradation and low water productivity are severe problems in the rural highlands of Ethiopia. The current study was undertaken at Meja watershed, which is located in the Jeldu district of Oromia region. The study investigated rainwater management practices and associated socio-economic and biophysical conditions in the watershed. The existing RWM interventions, their extent, and the nature of changes in land use and land cover (LULC) conditions were mapped and evaluated. Results indicated that with few exceptions of RWM practices potentially practiced, there were mainly poor and inefficient rainwater management practices in the watershed under the study. Results also indicated that over the three decades between 1990 and 2010 there was an increase in the extent of cultivated land and large expansion in eucalyptus plantation at the expense of natural forest and grazing lands. The overall effect leads to inadequacy of water for household consumption, livestock and for intensifying agricultural production via small scale irrigation systems. Deforestation and poor resource management resulted in soil degradation, reduction of hydrological regimes and water productivities in the watershed.

Key words: *land use, cover change; Rainwater; management; productivity; watershed*

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