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## Analysis of Land Use Change in the Wild Forest Coffee Systems of Berhan-Kontir and Geba-Dogi in Sheko and Yayu Districts of South-Western Ethiopia

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### Abstract

A formal household survey with samples of 120 respondents each was conducted at Geba-Dogi and Berhan-Kontir montane forest in South-Western Ethiopia to assess the economic value of wild coffee forest populations under a project called Conservation and use of wild Arabica coffee populations in Ethiopia (COCE). The data were analysed using descriptive and econometric techniques. The econometric technique was used to explain a binary attribute of complete conversion of the wild coffee forest plot out of what farmers had ten years ago, and to explain the intensity of land use conversion.

The land use system surrounding both forest zones has been changing such that the area of the forest land with wild coffee populations that are identified to have diverse coffee genetic potential has been decreasing and replaced mainly by a managed form of coffee production. Although institutional factors like increase in coffee price encourages farmers to convert their wild coffee forest land, different household and farm characteristics are associated with farmers' attribute of keeping certain wild coffee forest plots. Most importantly, factors like maize farm size, food shortage, distance from district centre, distance from forest area to residence, settlement history, and the size of improved coffee farm are important.

In such cases where farm land is the only resource on which the households depend for their livelihood, farmers' practice of the conversion of the wild coffee forest land is associated to their demand for additional crop land. Those farmers with a relatively larger cultivated area of maize and coffee have more wild coffee forest plots. Since shortage of farmland is becoming a constraint, as suggested by most farmers, the current intensive change in land use is threatening the wild coffee genetic resource. Measures that improve farm productivity, could lessen the pressure on the forest.

**Keywords:** Household, land use change, wild coffee