

## **Land Tenure Security, Land Holdings and Migration in rural Ethiopia**

Property rights to land that are secure and easily transferable has been identified as one of the key elements for rural development and poverty reduction in developing countries. However, in many developing countries these rights are established by contingent use of the land, in which security of access to land requires evidence of productive use by the occupant himself /herself (De Janvry, et al., 2015).

In Ethiopia, like in other developing countries, eligibility and access to land was contingent on physical presence on land, which prevents migration of rural landholders (Rahmato, 2003). However, migration of household members is considered as an attractive pathway out of poverty for many rural households in developing countries. For such households' labor is their main asset and access to distant labor markets through migration can increase the earning potential of its member (Harris, 1970). In addition, by allocating labor to areas where income risks are not correlated with agricultural income risks, migration can help rural households to reduce income risk (Azam and Gubert, 2006). Despite these potential benefits, households could be reluctant to send out migrants because of the inherent tenure insecurity. For example, letting others use the land or leaving it idle implies a substantial risk of loss of rights. This can be inefficient for the household as it imposes conditions on the amount of labor used on the land to keep production at an accepted standard of use, ignoring the return of labor in off-farm activities (De Janvry, et al., 2015).

Land title certification programs that remove constraints on land use and increase security have been widely advocated by national governments and international development agencies (Heath, 1990). Ethiopia is one of those countries that implemented land certification program. The Ethiopian land title certification program targets at issuing land use certificates for all farmers in the rural area. The land title certificate gives landholders the right to bequest their land to family member or other farmer in the region, to transfer their land right to other farmers as a gift, and to rent out their entire plot for up to 25 years.

The current land tenure system of Ethiopia makes for an ideal case to study the effect of improved land tenure security on land concentration and rural-urban migration. First, land rights enjoyed by cultivators have been characterized by inherent tenure insecurity. Second, rural-urban migration is very low in the country. Third, the country has implemented land titling certification program targeted at improving tenure security. Even though all lands are formally owned by the state, the new land certification program gave landholders the right to

rent out their entire land for up to 25 years. These make an appropriate case to study households' response to tenure security in relation to land concentration and rural-urban migration.

In this paper, we examine the impact of land tenure security on land concentration and rural-urban migration. We propose that land tenure security through the issuance of land title certificates can result in large scale adjustments to labor and land allocations. Using the Ethiopian large-scale land certification program from 2002 to 2007 as a quasi-experiment, we employ the standard difference-in-difference analysis on a panel of household-level data that describe economic and migration conditions. In the analysis, the non-uniform timing of certification is used to exploit the variation between treatment and control groups. The main threat to our identification strategy is time-trending unobservable that vary differently between early and later certified households. Our result of the identification test indicates that changes in migration over time prior to the land titling certification program were uncorrelated to the distribution of certification.

Estimated results from binary treatment models indicates that land title certification program led to increased migration of household member out of rural areas. This result is consistent with a variety of robustness checks. We also find that the opening of rental market influences migration decision of households. The result indicates that renting out land lead to increased migration of household member. Rental markets are the main channel through which land title certification affect migration of household member in rural Ethiopia. In addition, we find that land titling certification led to an increase in the size of land holdings of households.

Our result adds new empirical evidence on the important channels through which improved property rights affect economic outcomes. There are many case studies that show the role of land registration and certification program in ensuring tenure security (Deininger et al., 2011; Holden et al., 2009). The land certification program's effect has been assessed in relation to investment (Besley, 1995; Deininger et al., 2011; Holden et al., 2009), agricultural productivity (Beazbih et al., 2011; Deininger et al., 2011) and land market performance (Beazbih et al., 2011; Holden et al., 2009). To the best of our knowledge this is the first study that examines the effect of the program on land concentration and rural-urban migration in the Ethiopia. The study also sheds light on the effect of the program on household's labor allocation decision.