## Pathways into and out of Poverty: A Study of Rural Household Wealth Dynamics in Kenya

Milu Muyanga, Research Fellow, Tegemeo Institute, Egerton University; currently a PhD research student at Michigan State University, East Lansing, Michigan

T.S. Jayne, Professor of International Development, Department of Agriculture, Food and Resource Economics, Michigan State University

William J. Burke, Graduate Research Specialist at Michigan State University, currently a visiting fellow at the Food Security Research Project in Lusaka, Zambia

## **Abstract**

For the past half-century, African governments and development agencies have experimented with a series of alternative approaches for addressing rural poverty, each giving way to a new paradigm as the persistence of poverty created disillusionment with prevailing approaches. These broad strategies included 'growth and trickle down' in the 1960s; basic human needs and stateled integrated rural development in the 1970s; structural adjustment and economic liberalization in the 1980s and 1990s; and, since 2000, a heterodox mix of donor budget support to empower government ownership in the design of participatory poverty reduction strategies, and resurgent interest in agricultural development. However, rural poverty in most of Sub-Saharan Africa appears to be declining only marginally. Yet some smallholder farm households have successfully climbed out of poverty, thus providing an opportunity to learn about the economic pathways that might enable other rural smallholders to do so. Conversely, some households that were once non-poor have now descended into poverty. If researchers and policy makers knew more about the factors associated with these dynamics, it might be possible to replicate these factors more broadly through poverty reduction strategies.

The recent availability of longitudinal survey data provides a new means to analyze the dynamics of household asset accumulation and decumulation. This paper identifies the factors associated with smallholder farm households having ascended out of poverty or descended into poverty. Using a nationwide balanced panel of 1,256 farm households in 22 districts in Kenya interviewed in 1997, 2000, 2004 and 2007, we find that a relatively small fraction of the sample experienced either an appreciable improvement or decline in their relative asset wealth over this 10-year period. Over 70 percent of the sampled farm households are in roughly the same wealth position as they were 10 years earlier, although more households experienced an increase in asset wealth than a decline, which is consistent with Government of Kenya findings of declining national poverty rates over the same general period.

For the 25 percent of households that did experience an appreciable change in asset wealth between 1997 and 2007, we revisited 84 of these households in 2008 with more detailed retrospective "life history" surveys to capture a wider range of factors influencing current household livelihoods. Households successfully accumulating assets and rising out of poverty (i) were more likely to have remained healthy and suffer no unexpected deaths during the decade prior to the start of the initial survey in 1997; (ii) were not adversely affected by mortality that did occur during the panel period; (iii) were consistently headed by a male; (iv) received relatively more land from their parents at the time the household was formed; and (v) parents

who were relatively well-off and educated. Moreover, the ascenders were able to acquire more land, cultivate 70% more land, and increase their use of fertilizer over the 2000-07 period, consistent with the overall agricultural and economy-wide growth in Kenya that occurred during the 2004-2007 period.

Among households reporting a significant decline in asset wealth, roughly half experienced unexpected shocks, such as premature death and chronic illness. These households reported spending 22% of their annual incomes and 47% of their assets on medicines and caregiving. Households with declining asset trajectories were also more likely to have turned from male to female headed due to male mortality, have two or more wives in the household, poorly educated household heads, fathers of household heads who were relatively uneducated, and relatively little land and other assets inherited from parents. Small inheritances among the "descenders" can be traced to a smaller amount of land per number of sons of the household head's father. The descenders also tended to lose land and animal assets over the panel period (in some cases due to disease and need to pay for medical expenses) in sharp contrast to the ascenders. Perhaps surprisingly, the descenders were more likely to use fertilizer, had higher fertilizer application rates per acre cultivated, and were more likely to receive agricultural credit than the ascender households.

Consistently better-off households were more likely to (i) have been male headed; (ii) have members with secondary and/or post-secondary educations; (iii) not be polygamous; (iv) received significantly more land and other assets at the time the household was formed. They were also less affected by mortality in the family. These consistently better-off households owned more land and applied more organic and inorganic fertilizer than either the ascenders or descenders. However, they were no more likely to receive agricultural credit or grow major cash crops than the descenders.

These findings underscore the importance of staying healthy in households' ability to produce agricultural surpluses, accumulate assets, and exit from poverty. Households' agricultural performance and earnings over time is in many cases related to their lagged health status. The study also highlights the role of intergenerational wealth transfers. Poor households are able to transfer little to the next generation, which then makes it very difficult for them to climb out of poverty. Lastly, all three groups as well as the overall nationwide longitudinal sample of smallholder households reported a noteworthy increase in their usage of fertilizer over the 1997-2007 period of input market liberalization. The dramatic increase in fertilizer use during this period is correlated with an improvement in national maize yields and agricultural performance during the 2000-2007 period as well as a modest decline in rural poverty rates.