GrowthResearch Programme

Changes to livelihoods in rural Tanzania since the late 1980s

Steve Wiggins

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Key messages:

Understanding of rural incomes in Africa is imperfect. In Tanzania, it is thought that economic growth since 2000 has largely been confined to the urban economy.

However, studies of change in rural villages in recent decades show progress. Farmers have increased their cash crop output, which has stimulated non-farm enterprises and increased the assets of poor households.

Progress is attributed to: higher crop prices and new crops; the provision of more schools, health posts, water systems and electricity; and by better roads.

Straightforward policies and investments can support rural people. The challenge is to stay the course and focus funds on projects that are proven to work.

This brief summarises and sets in context results from DEGRP-funded research project 'Long-term livelihood change in Tanzania'. The project investigated how livelihoods had changed in rural Tanzania from the 1980s and 1990s to the mid-2010s. The research was led by the Dan Brockington, Director of the Sheffield Institute for International Development (SIID) at the University of Sheffield.

The challenges of assessing rural development

If policies and public investment in rural areas are to be designed to best effect, we need to know about opportunities and problems, about processes and changes taking place in rural areas. Yet some aspects of rural development are hard to track. Changes are typically assessed by comparing measures from surveys carried out at different times.

The most quoted facts include the incidence of poverty, estimates of household consumption and occasionally of income, household assets and living conditions such as housing, and measures of education, health and nutrition. Typically, these are reported as averages for the nation, for urban and rural areas, and for regions: rarely are they disaggregated down to the third tier of district level.

Some of these variables are hard to measure, particularly income, consumption and poverty. That is partly because people may not be willing to reveal their true earnings and wealth, and partly because it is often quite hard for a survey respondent to recall exactly what the household earned in the last month or year when different members worked in diverse and informal occupations.

Poverty measures face the additional complication of comparing estimated income or consumption against a poverty line defined with respect to a budget necessary for the household to meet its basic needs. Modest changes in assumptions about the income necessary can make large differences to the shares of the population classified as poor.

A further problem is that output from the main activity that generates rural incomes, agriculture, is often imprecisely measured.

Few low-income countries conduct regular sample surveys and censuses of agriculture: reported statistics typically rely on field officer estimates of areas planted and yields achieved (Carletto et al., 2015). Hence, estimates of farm output and productivity that might corroborate changes to rural living standards are often unreliable.

The Tanzanian context

These problems are particularly acute for rural sub-Saharan Africa. Consequently, observers lacking definitive evidence tend to have different assessments of rural change in the region over the last twenty or so years, when national economies across the region have started to grow again after the economic doldrums that extended from the mid-1970s to the early 1990s.

Some see rural economies and living conditions advancing in line with national growth, but others believe that rural areas have prospered less than the cities have.

This concern applies strongly to Tanzania. Since the mid-1990s the economy has grown rapidly in most years, at rates of 5–7% a year. Even given population growth of more than 3% a year, GDP per person has risen from US\$458 in 1995 to US\$900 in 2017 in constant terms, at a rate in excess of 3% in most years.

This has reduced poverty in Tanzania: the share of the population living on less than US\$1.90 a day [2011 purchasing power parity] fell from 86% in 2000 to 60% in 2007 to 49% in 2011 (World Bank, 2015). Yet some observers believe that few of the economic gains have benefited the majority of the rural population (see Östberg et al., 2018) for a summary.

It is hard, however, to know how well official data capture the full variety of dynamics of variables that determine well-being and poverty. The unreliable agricultural statistics show growth rates of 5–7% a year since the mid-1990s in more than half the years: high rates indeed for agriculture, easily matching

those seen in Asia since the start of the green revolution. Rural poverty has been falling, but quite slowly: from 39.4% of people living below the national poverty line in 2007 to 33.4% in 2011, much more than rates seen in urban areas (World Bank, 2015).

Lacking reliable data, it is no surprise that different writers see changes to rural welfare so very differently. The problem is moreover exacerbated by the regional variations that arise across a very large country: changes in one zone may be very different to those in another, hundreds of kilometres distant, with a very different geography.

Finally, when trying to assess progress, observations at different times may show improvements, and yet levels of poverty and deprivation remain high, making words like 'progress' and 'improvement' seem inappropriate.

Moreover, observers seeing current deprivations may forget just how much worse these were in the past. Indeed, as Monique Borghoff Mulder, one of the researchers in these studies, has described, poverty may be more obvious when progress leaves the exceptions more prominent. Incremental change may be particularly difficult to appreciate for both locals and observing researchers.

The DEGRP research

Aims

With all of this in mind, DEGRP researchers set out to build a more reliable body of evidence on change in rural Tanzania.

The research team aimed to answer the following questions about change in rural Tanzania from the late 1980s to the mid-2010s:

1. What factors enable families and individuals to build assets in agricultural livelihoods?

- 2. What factors enable families and individuals to build assets beyond agriculture?
- 3. What are the drivers of asset-loss and failure to build assets in the agricultural and non-agricultural economies?
- 4. How might asset-loss in families and individuals be mitigated?
- 5. How might paths to asset building be facilitated and spread to others?

Methods

The project involved identifying research carried out in rural Tanzania at the village level during the 1980s and 1990s, where original datasets from household interviews still existed. Researchers then went back to those villages and re-surveyed as many of the original households as could be found. This involved qualitative enquiry, as well as trying to locate as many of the originally surveyed households, to collect quantitative data from them.

16 existing surveys were identified in total, leading to re-surveys in some 30 villages across 12 regions of Tanzania.

A central concern of the research was how to measure changes in rural livelihood and welfare. Conversations with villagers in 17 of the re-surveyed villages established their perceptions of what mattered to them. Two things stood out as commonly expressed markers of welfare. One was the importance of being able to take care of one's own affairs — *uwezo* in Kiswahili — without depending on others. The other was assets: housing, land, livestock, farm and business equipment, and training and education. The two are clearly linked: having assets allows households to

cope with unexpected expenses and thereby to manage life.

In light of these conversations, the studies focused on changes in assets between the original and the subsequent survey. At the same time, focus groups were conducted to explore how wealth and poverty are defined locally, and which households would be seen as poor, wealthy or somewhere in-between. This allowed researchers to understand how households had moved between categories through time.

Findings and analysis

Changes seen

Inevitably for such a large country, the changes registered in each village are diverse in their detail — but much less so at a more general level. In most cases, the villages have become more prosperous in terms of their asset ownership. Many households have been able to improve their living standards, build up assets, and enjoy more *uwezo*. The additional wealth has come primarily from agriculture and has been facilitated by much improved access to markets.

1. Agriculture

In almost all villages, most farmers were earning more: they had taken up growing crops with high returns. In some cases, these displaced traditional cash crops, as applied on the slopes of Mount Meru in the north of Tanzania, where coffee production saw a steep decline (see Box 1).

Farmers had also intensified their operations where land was scarce, by using better seeds, more fertiliser and, in some cases, irrigating lands previously only fed by rain.

¹ A major challenge for such longitudinal studies is that households change through time. Some no longer exist as the parents have died and the children have dispersed, others have left the village. When the same households are found, members are now much older. Care had to be taken to compare households of similar ages, to avoid life cycle changes being mistaken for long-run change.

Where available, previously untilled land was ploughed, aided by the increasing availability of tractors – owned by only a few farmers and business men, but leased to many. Hence either by raising yield per hectare, or by tilling more land, farm output had risen.

As a result, previously unimaginable earnings have been realised in remote areas: for example, in the last four years, US\$20M has been paid to farmers for their sesame in Rukwa District.

Accruing the surpluses necessary to buy the assets recorded has not been easy. Farmers had to scrimp, save and invest proceeds from farming carefully. However, even in challenging environments for agriculture, many families have been able to build up assets from the proceeds of their farming.

Little change was seen to the structure of farming: it remains almost entirely a family affair, on smallholdings where most operations are carried out by the family.

2. The rural non-farm economy

Non-farm activity had flourished in many of the villages. Increased farm production created jobs in supplying inputs, processing output, storage and transport. Higher farm earnings then led to demand for consumer goods and local services including construction, repairs and transport.

Compared to previous findings, village centres are no longer quiet spaces where people could gather at the end of the day, with just the odd shop or two: they have increasingly become small commercial centres with several shops, workshops, and transport from motorbikes to taxis and buses awaiting their travelling customers. This has been aided in part by falling prices of some goods — notably motorbikes which are becoming common even in the remotest areas.

Box 1: Mount Meru: shifting from natural to human capital

The slopes of Mount Meru have long been densely settled, with more than 500 persons per square kilometre. The fertile volcanic soils and twice-yearly reliable rains made the slopes highly productive. When a sample of villages were surveyed in 1996, farming was the main livelihood, with coffee, bananas, milk and maize being the main produce from farms that were typically two to four acres in size.

Twenty years on, profound changes have taken place. The population has continued to grow, and average farm sizes have halved. Much of the coffee has gone owing to falling prices, disease and failing marketing cooperatives. The bushes have been uprooted to make way for potato, carrot, cabbage and other vegetables destined for Arusha and similar cities. Given growing urban demand, these crops now generate much better returns than coffee can.

At the same time, the rural non-farm economy has benefited from increased farm earnings and proximity to Arusha. More rural household have non-farm income and more of it. Parents, seeing that the future lies off the farm, have invested heavily in education. In one village, 61% of children had secondary schooling, and almost one in five (19%) had gone to university, against a national average of just 1%.

Local concepts of wealth have also changed. Before, ownership of land and livestock was key. Today what matters is education, training, skills, social connections and business nous. Rural people still have their very small farms, but they are ever less central to their livelihoods.

This is an extraordinary turn-around. Just as population growth in an already densely settled area was leaving households with tiny plots, farming has ceased to be critical to livelihoods. On Mount Meru's slopes, human capital now trumps natural capital.

In some cases, the shift from farming to other rural activities has been quite dramatic, including in places where farm land is scarce (Box 1).

However, not all villages have seen the local economy grow faster than population: when farming falters, life can become hard, as the experience of Uchira village, Kilimanjaro region shows (Box 2).

3. Public investments and services

Although much of what has improved rural life has come from private initiative, public investments have complemented these efforts. In some cases, road building and improvement have played a crucial role by allowing farmers to access urban markets at much less cost.

Notable in most accounts is much greater provision of public services in the villages: secondary schools to complement the primary schools that already existed, new and expanded health centres, some water projects, and grid electricity.

4. Housing

Of all the assets that were created since the previous surveys, better housing stood out in particular. In the 1990s, most rural dwellings had thatched roofs, now many of these have been replaced by corrugated iron sheets.

Houses have also been expanded, earthen floors have been cemented. Many houses now have electric light: where the grid has not yet arrived, solar panels have become popular.

Box 2: Uchira: little progress since 1996

Not all accounts show progress. Uchira village lies at the south-eastern foot of Mount Kilimanjaro, straddling the main road from Moshi to Dar es Salaam. The village was settled in the 1940s and 1950s by migrants from the slopes of Mount Kilimanjaro and the Pare Mountains, all seeking land to cultivate maize, beans and sunflowers and to raise livestock.

When first surveyed in 1996, Uchira was a bustling village, thriving on its farming and roadside trade despite lacking a reliable water supply, possessing few services and having only an unmade road. In the subsequent 20 years a water supply has been installed, the road paved, and schools and health posts have been upgraded. Nevertheless, for most people life has improved little if at all.

The problem is that the mostly rain-fed farms have had to be sub-divided to cater for an expanded population. But, their production and productivity has not increased to match this rise in numbers of people. Indeed, as farmers try to work the land harder, soil fertility may be falling on some fields. With farming faltering, the local economy otherwise consists of badly-paid jobs such as weaving baskets or crushing stones. Only a few relatively wealthy business people have been able to run bars and operate transport.

For some, and especially older people, getting by means selling land and living off remittances from sons and daughters who have been able to leave for better jobs in Moshi, Dar es Salaam and other cities. However, the lives of women have improved in that they report more influence on household decision-making, the local authority has clamped down on domestic violence, and their daughters are increasingly likely to be in secondary school

Yet if women have gained somewhat, the situation of youth is dire. Most go to secondary school, but the quality of education is poor, and there are few jobs for them afterwards. Young men and boys seem to have become particularly demoralised, dreaming of easy money that eludes them and often spending what little cash they earn on drink.

5. Poverty, inquality and social relations

Most accounts collated as part of the research recorded more prosperity in the villages, based on increased earnings. But was prosperity evenly distributed, and did the poor benefit?

In the first survey, households in several villages had been categorised along a spectrum ranging from destitute to wealthy according to local criteria, with key informants then allocating households to their position along the spectrum. The re-surveys allowed this exercise to be repeated, with transition matrices to show the number of households moving between categories.

It seems that many of the poorest households in the earlier surveys had indeed improved their condition: not necessarily dramatically, but by enough to escape deep poverty. For example, in one village in the remote south-west, since the early 2000s most of the households once considered destitute or very poor have moved upwards, even if only to categories of vulnerable and struggling (Borgerhof Mulder, 2018). Similarly, in Gitting, Manyara, major reductions in the share of households considered poor — who formerly made up over half of households — has led to most households now being clustered in the middle of the spectrum (Brockington et al., 2018)

Some forms of poverty, however, persist. Illness, old age or households splitting through divorce means loss of labour and the ability to work. Affected families may even divest agricultural assets to provide for their old age.

Overall, these studies provide little evidence that countries like Tanzania are experiencing growth that leaves the poor behind, or which actively immiserates them. On the contrary, evidence suggests that households formerly on very low incomes have been able to benefit from change, and suggests some reasons why. One reason is that few households were landless. Indeed, low-income households were more likely to lack labour rather land. Hence when opportunities to

earn more from farming arose, most households could take advantage.

Another clue comes from the casual labour market. In the 1980s and 1990s, working for others — *kibarua* in Kiswahili — was undertaken as a last resort. The work was badly paid and involved an uncomfortable subordination to the employer. Recent re-surveys show things have changed: fewer households sought paid work because their farms and businesses provided better returns, while those who did seek work — in some cases groups of youths — were paid more and could live off their earnings. The rural labour market in some areas may well have tightened.

A final hint comes from occasional evidence pointing to the declining power of gatekeepers. When villages were less well connected to the rest of the country, farmers wanting to sell a surplus often found themselves dealing with a single trader who could dictate terms. More recently, other traders have arrived in village centres, providing competition, resulting in farmers being more likely to receive a price reflecting the urban price less transport costs, with only a small trading margin.

Aspirations and aspirations have changed too. Formerly, lacking either economic opportunity or consumer goods on which to spend any earnings, many men drank. Recently, however, locals reported less drinking, with cash instead spent on home improvements, clothes, secondary school fees, solar panels, motorcycles, televisions and so on (see for example, Östberg et al., 2018).

Jealousy and witchcraft have apparently also declined. In the past, the image of the limited good, where individual progress was thought to be at the cost of someone else, was prevalent, provoking jealousy and even allegations of witchcraft. Much less so today. That said, it remained important for those prospering to be seen to contribute to local society. In Goima and Mirambu, two local merchants, enriched by grain trading, built water dams, brought in

drinking water from a borehole in a neighbouring village to sell at or below cost, and funded the building of a new mosque: all highly visible actions appreciated by the rest of the village.

These studies were not designed to explain such changes in mores and attitudes, but three things were mentioned as possibly changing people's outlooks: new economic opportunities; novel ideas coming back to the villages as people were able to travel (owing in part to better roads); and the influence of immigrants. On migration, some parts of rural Tanzania have seen the arrival of people from other regions, particularly pastoral groups seeking grazing. They have brought knowledge of farm methods, market opportunities and ambition: often locals have watched, listened, and taken up at least some of what they have seen and heard.

6. Women and gender relations

Women in some cases had improved their lives and seemingly gained more power. In Gitting, Manyara, for example, women could now get their maize ground in a mill, instead of having to grind it by hand. Water was now available at standpipes in the village. Clinics were leading to better maternal health. Women had used some of the time saved to engage in better paid work. (Brockington et al., 2018)

Material progress reflected and contributed to changing gender relations. On the slopes of Mount Meru, women welcomed the decline of coffee, because they previously had to tend to coffee bushes, while men alone sold the crop and pocketed the earnings. Women now had more chance to sell new cash crops such as vegetables and bananas, even if men were trying to muscle in and claim these as their own crops.

The growth of the nearby town of Arusha and the local non-farm economy gave women further opportunities to earn. Women were now less constrained by their husbands and other men, even if they were still often unable to make independent decisions in the way men could (Howland et al., 2018).

However, not all social change was seen as positive. As longstanding norms were challenged, elders lost some of their prestige, as well as their ability to regulate social behaviour. Ill-disciplined youth and, in particular, sexual promiscuity was lamented. Some felt that consumerism had weakened social links.

Moreover, local perceptions of change did not entirely correspond to what researchers thought they observed. When people were asked whether life had improved since the original survey, the answers were often quite ambivalent, with as many people claiming that things were the same if not worse, as those saying things had improved. Something similar was reported in the Kagera panel studies in the northwest of Tanzania, where surveys from the early 1990s had been followed by repeated surveys through to 2013. Despite material gains recorded in surveys, many people did not think their lives were better [de Weerdt, 2006].

These perceptions may be explained by physical decline: the persons interviewed were 10, 20 or more years' younger in the past, healthier and more vigorous. Or perhaps it is simply that material advances may not bring commensurate joy or satisfaction: material advances can be rather quickly taken for granted.

Drivers of change

The village accounts repeatedly mentioned the following factors as driving livelihood change:

• Improved roads, more public transport, and easier access to towns

This applied in many cases, with some differences being spectacular. For example, in Mtowisa village, Rukwa, as recently as the early 2000s a trip to market involved an eight-hour walk. By the mid-2010s, a road had been built along which small buses and motorbikes made the journey in an hour or so. Before, only a few essential provisions

were brought into the village; subsequently, commerce with urban centres has flourished.

Easier and cheaper transport contributed to higher real prices for farm output. For most crops, villagers reported that prices were higher than before (even allowing for inflation), that a wider range of crops could be sold, and that they were more likely to have competing buyers for their surpluses. Only in the case of coffee were lower prices mentioned.

More opportunities to start or work in rural non-farm businesses

Increased farm output and earnings made for increased local trade and gave rise to complementary businesses and services, and the jobs these provided.

Increased provision of public services
 In schools, above all new secondary schools, health posts and water supplies.

Some of these factors are related: better access to urban centres meant that traders could now source supplies from formerly remote villages and offer higher prices to farmers. Agricultural growth stimulated non-farm business. Better education, improved health and more convenient water supplies allowed people to fulfil their potential to work.

Behind these factors lie higher order drivers of change. The growth of the rest of the Tanzanian economy seen since the 1990s led to the growth of towns and consequent demand for food and raw materials from rural areas. Macro-economic stability and peace made it possible for traders and other business people to take initiatives.

So too did open trade: traders who went to remote Rukwa to offer attractive prices for sesame to farmers did so on behalf of a national company with overseas offices that was exporting to India. A growing economy has provided tax revenues to allow the state to invest in roads and other infrastructure and to improve rural services.

Reflections and implications

Why do these village studies suggest a more dynamic rural Tanzania than some official statistics imply?

In the first instance, village surveys and national surveys simply measure different things in different ways. We should not expect close correspondence between them. Surveys of rural economic activity to estimate GDP are so problematic that any connection, or indeed difference, between these and the local resurveys may only be coincidence.

Much development research describes problems, before discussing how policy may solve them. These studies, on the other hand, are largely reporting greater economic dynamism in rural Tanzania than commonly imagined, and with it, progress in several dimensions of rural life.

So, what should leaders and policy-makers take away from this research? Two considerations arise:

One is that much of what the government has done since the 1980s has produced welcome results. It seems that a combination of: political stability and peace; macro-economic management that avoids economic shock and allows businesses to invest with reasonable chances of success; investing in physical infrastructure; and providing services and investment in people can greatly help create the conditions for sustained, broad-based economic growth.

This is not to argue that policy has been perfect, that all problems have been avoided and all opportunities have been taken. But it does imply that when the state fulfils most of its fundamental roles without major mishaps, then prosperity can result.

The corollary of this argument is that rural growth and development do not necessarily demand drastic measures. From what can be seen in rural Tanzania, for example, reallocating land to form larger farms does not seem

necessary for agricultural growth. It may be argued that such a reallocation might accelerate growth; but in the absence of much concrete evidence to support that argument, it might be prudent to avoid such wholesale changes.

Interestingly, some people interviewed could still recall their bad experience of the state reallocating land in the 1970s. Not only may drastic action not be necessary, but it also carries the dangers of diverting the focus from more prosaic, but valuable measures. Keeping a gravel road in good order, for example, is a mundane task that will never make the news nor confer prestige on a politician: the danger always exists that road maintenance budgets will be cut, or allowed to atrophy, to create funds for more spectacular public investments.

The other consideration concerns the diversity of experiences that apply across the wide expanses of rural Tanzania, and between the many households and individuals that make up the population. National policies matter, but there will always be many things that need correction geographically and socially.

Geographically, local areas will usually have needs for public investments that are not necessarily recognised nationally, nor allowed for in central ministry budgets. Decentralising authority and budget to local governments to address such needs makes sense.

Similarly, socially, the histories of households and the families within them reveal the importance of idiosyncratic factors, above all the way that ill-health, accidents, disability, addiction, martial breakdown, and violence can devastate people's lives. Rural people have little protection against misfortune other than their assets and savings, plus whatever help they may receive from family and friends.

For the less fortunate, those will not meet their needs. More social protection would help them. Indeed, some village reports commend the Tanzania Social Action Fund (TASAF) that provided pensions to some of the elderly, for

allowing them to cope without losing their assets.

Did the village studies reveal common problems that policy-makers might address? Concerns over the environment featured in some cases; usually those where most of the spare land had been brought under the plough, apparently without cultivating so as to prevent erosion and degradation of soils.

People worried about the loss of forest entailed in the expansion of fields, and about where their children would acquire land now that most of it was taken up. Such problems, however, are not inevitable. Given Tanzania's diversity, some areas have long been densely settled (see Box 2), with intensive use of small plots over decades. Local knowledge of how to farm intensively and sustainably exists: the challenge is to spread this knowledge.

To conclude, villagers expressed their conception of better lives as increasing their *uwezo*, or capabilities and capacity to manage and live their lives. There seems little doubt that many of those interviewed by the researchers had seen such an increase in capacity, even if there is some way to go before they are able to manage as well as they would like.

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