



Smallholder Farmers' aspirations of their 'ideal' farm in Northern Kilombero, Tanzania

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KEY MESSAGES

1. **Qualitative research was conducted in the Northern Kilombero Valley of Tanzania to investigate smallholder farmers' aspirations for the future of their farm.** Opportunities and challenges to achieve their aspirations were also investigated.
2. Nine workshops with smallholder farmers, one workshop with decision-makers at the District level, seventeen interviews with village leaders and Agricultural Extension Officers (AEOs) were conducted, involving a total of 112 participants.
3. Four dominant aspiration narratives emerged from the analysis of data: 1) **land ownership and expansion**, 3) **agricultural livelihood diversification**, and 4) **access to water for irrigation**.
4. **Access to land and water are perceived by smallholders as key for agricultural transformation:**
 - Farmers aspire to own and expand their agricultural land.
 - Some farmers advocate for land redistribution and claim that land is currently owned by a few 'big' farmers who rent it at a price perceived as too high.
 - Access to water, in the form of wells, canals for irrigation or small-scale irrigation schemes, is deemed essential for the success of smallholders' activities.
5. **Agricultural livelihood diversification** – producing a number of subsistence food and cash crop types – **remains key to smallholder aspirations for household income, food security, and livelihood resilience.**
6. **Very few opportunities to achieve their aspirations were stated.** Those mentioned included:
 - a) agricultural inputs (e.g. seeds and fertilisers), however, these were also perceived as problematic, with concern expressed that chemical inputs cause dependence and are dangerous to human health.
 - b) loans, however some described them as 'deadly' because they result in indebtedness.
 - c) irrigation, where it is possible to practice it, to cope with changes in weather.
 - d) trees were considered by a few farmers to help regulate the climate.
7. **Challenges to achieving smallholder farmer aspirations dominated conversations in workshops.** These included: a) limited access to land, b) financial constraints, c) limited access to water, d) elephants and crop damage, e) coexistence with pastoralists, f) the prices obtained for rice and sugarcane, g) pests, h) climate changes, floods and droughts, i) soil infertility, j) poor representation and limited recognition of smallholder farmers' values in decision making.
8. **These challenges interact, affecting smallholders' security – personal security** (human-elephant encounters, theft), **food security** (crop pests and disease, crop damage by elephants, changes in the weather), **and resource security** (particularly land, water due to lack of irrigation, and fuelwood due to restricted access to forests, lack of crop insurance due to high investment risk on the farm. Lack of income prevents smallholders from improving their agricultural activities and unfavourable loans combined with scarce harvests, lead to poor livelihood outcomes.

INTRODUCTION AND BACKGROUND

Tanzania is undergoing rapid agricultural, livelihood, and landscape transformation. Agricultural transformation is considered key to achieve several Sustainable Development Goals (SDGs) promoted at the global level, such as, among others, SDG2 – zero hunger, SDG1 – no poverty and SDG13 –tackling climate change. At the national level, the nature of agricultural transformation set out in the Agricultural Sector Development Plan Phase II and related agricultural growth initiatives e.g. the Southern Agricultural Growth Corridor of Tanzania initiative (SAGCOT) advocate increased productivity while ‘ensur[ing] environmental sustainability through the commercialisation of smallholder agriculture’ (SAGCOT, 2022). However, in this context, and similar others across Africa (Muller-Mahn 2020), smallholder farmers’ aspirations for their future farms and livelihoods have been partially overlooked and their interests under-represented in policy-making.

The Northern Kilombero Valley landscape, positioned within the Kilombero Cluster of SAGCOT and encircled by strictly protected conservation areas of high biodiversity value (Udzungwa National Park, Nyerere National Park, formerly Selous Game Reserve, Magombera Nature Forest Reserve), is currently subject to rapid change triggered by agricultural transformation. Between 1990 and 2016, agricultural land increased by 30% (Johansson & Abdi 2020) and immigration from other areas of the country has augmented the pressure on limited land. The Kilombero Sugar Company – present in the area since the 1960s – is in the process of building an additional factory and about to embark on a phase of production expansion through an outgrower scheme.

This briefing note reports the outcomes of qualitative research conducted in July-August 2021 in the landscape to investigate smallholder farmers’ aspirations for the future of their farm, and perceived opportunities and challenges to achieve their aspirations. There has been limited documentation of smallholder farmer aspirations’ of farms and their recognition and influence on decision making in the landscape. The findings from this research are particularly important to agricultural, forestry and conservation actors who are planning and implementing activities that directly or indirectly impact smallholder farmers’ aspirations and thus livelihood futures in the landscape.

DESCRIPTION OF RESEARCH

The research explored and exposed farmers’ aspiration in relation to agricultural transformation at farm and landscape level in the Northern Kilombero Valley. The research aims to understand how smallholders envisage their ideal farm in the near future (10 to 15 years), and the challenges and opportunities to achieve the transformation to which they aspire.

This research adopted a participatory approach and involved seven villages, namely Sanje, Kidatu, Msolwa Station, Katurukila, Mangula B, Msalise, and Mgudeni and 112 participants. It was based on nine workshops with 38 women and 47 men, 20 of whom were youth (people with less than 35 years) and 65 adults. A workshop with decision makers at the District level and seventeen semi-structured interviews with village leaders and AEOs were added to integrate the findings from smallholders’ workshops. A local artist supported the discussion drawing visual representation of the ideal farm described by each participant.

KEY FINDINGS & RECOMMENDATIONS

The four main narratives of transformation that emerged from smallholders’ description of their ideal farm are: (1) land ownership and (2) expansion, (3) agricultural livelihood diversification, and (4) access to water for irrigation.

Land and access to water for irrigation, mainly in the form of furrows, canals, and small-scale irrigation schemes (narrative 4), are key to agricultural transformation according to smallholders. Land ownership (narrative 1) is valued by smallholders because rental prices are perceived as too high and

farmers investment in renting a plot is not always repaid by mainly rain-fed agricultural activities that are susceptible to climatic changes and variability. Smallholders also envisaged, with some exceptions, cultivating more land (narrative 2) as a means to increase productivity. They lamented their limited access to fertile land. Some farmers simply wished they could continue to cultivate the same crops on bigger plots, whereas others related land expansion / addition of new plots to their ability to diversify agricultural activities (narrative 3). They wanted to have access to more land to add crops such as maize and or/cassava, but also vegetable gardens and tree farms, to increase food security and generate additional income. Fish ponds, bee-keeping and small livestock were also mentioned as part of this diversification strategy. Farmers desired to have trees in their ideal farms, either to mark the border with neighbours or to cultivate in tree farms. The most frequently mentioned species were fruit trees and/or trees useful for construction and firewood, whereas indigenous species, cited less often, were deemed useful for medicine and to attract the rain.

Smallholders perceived the situation of their current farms as very challenging and many of them wished the government to intervene to support them in overcoming the problems they face. They described elephants as a major challenge because of incidents threatening both their personal and livelihood security through crop damage. Some participants also reported a difficult coexistence with pastoralists in the areas around Msolwa Station and Signalali. Moreover, workshop participants wished the government could regulate the price of rice and sugarcane and intervene to protect smallholders' interest in their relationship with the sugarcane company. A lack of money was described as another very important challenge, loans were seen as problematic because they were not tailored to farmers' needs and often resulted in their indebtedness. Smallholders also reported problems with agricultural pests and in accessing inputs. Agricultural inputs were described as expensive and difficult to obtain in a timely manner. Finally, in relation to the challenge of land scarcity, many farmers advocated for its redistribution as they perceived land to be owned by a few 'big' farmers who rented to them at too high price. In addition, many farmers claimed soil fertility was declining and their harvest was also affected by climatic changes.

Some opportunities were identified in irrigation which, when present, led to increased productivity and helped to cope with changes in weather. A few farmers also reported tree planting as an opportunity to 'bring the rain'. Finally, loans that are specifically tailored to agricultural activities were also seen as a potential solution to financial constraints.

POLICY IMPLICATIONS

Smallholders identified the government as the main stakeholder responsible for policy design and implementation that promotes a form of agricultural transformation that recognises their interests and values. Diversification remains to them a key aspiration. A lack of crop diversification can indeed represent a risk for food security, human wellbeing, and biodiversity and increase household vulnerability to climate change. Given the complexities characterising the Northern Kilombero Valley and the interconnections between land and water management, forestry, agriculture, restoration, and conservation, an integrated landscape approach is needed to promote fair implementation of Public Private Partnerships that are transforming the area and to coordinate the many conservation and restoration efforts led by third sector and NGOs.

An inclusive approach to policy design and implementation and in the formation of Public-Private Partnerships is needed to increase the participation of smallholders, whose voices are currently under-represented. Land reforms and access to water are key, according to smallholders, to guarantee that they can benefit from agricultural transformation. Food security might also be undermined by large scale monoculture farming systems such as expansion of sugarcane cultivation if subsistence food production is replaced, and requires careful monitoring. Some of the land has to be secured for staples (maize, cassava and rice), vegetable gardens, tree farms, and other income generating activities that

sustain the aspired diversification strategy of smallholders. Conservation efforts should also take communities' needs into account to counter the effects of crop raiding and other damage, including loss of human life, currently caused by elephants.

FURTHER INFORMATION

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Suggested reference: Lala M., Sallu SM., Moore E., Barnes L., Shirmia D. & Pfeifer M. (2022) Smallholder Farmers' aspirations of their 'ideal' farm in Northern Kilombero, Tanzania. AGRISYS-Tanzania Briefing Note, November 2022.

This work was supported by UK Research and Innovation as part of the Global Challenges Research Fund, Grant Ref: BB/S014586/1



About the Agrisys-Tanzania This was a UKRI-BBSRC funded research project entitled 'What to plant, when and where? Designing integrated forest-agricultural landscapes to enhance multiple livelihood benefits to and from agriculture'. The project was implemented 2019-2022 to investigate the biological and human well-being benefits and trade-offs provided from retaining natural and semi-natural habitats in the Northern Kilombero Valley landscape of Tanzania. The project goal was to better understand the potential of agroforestry as part of an integrated land management strategy that can be used by farmers and agribusiness to improve crop production whilst retaining essential co-benefits.

Implementing Partners: Newcastle University UK, Sokoine University of Agriculture Tanzania, University of Leeds UK, National Museums of Kenya.