Crop Production and Livelihood Strategies in a Resettlement Village in Kenya
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Introduction

The field site of our study was Solio village 3, one of seven resettlement villages created in 2007 to relocate approximately ten thousand internally displaced people. The residents had been evicted by the Kenyan Government from their previous homes in the Mount Kenya and Aberdare forests in 1992 due to environmental concerns of overpopulation in the areas, and since then had been living as squatters in the surrounding towns. The village is located 1950 meters above sea level near the town of Naro Moru, on the border of the Rift Valley province and Central Province. The area lies within a rain shadow created by Mount Kenya, and the conditions are semi-arid and regarded as unfavorable to productive small-scale farming (Mutiga and Gitonga, 2009). There is one borehole in the village with four additional water collection points reserved for household use. In Solio village 3 each household has a 0.5 acre plot around their homestead and a 4 acre plot for cultivation. There was no complete list of village inhabitants, and so we had to infer information regarding the demography of the village from our QS results. We estimated the population of the village to be around 1,670 based on the mean household size of 3.8 people and our observation that approximately 85% of 517 plots were inhabited.

Academic opinion regarding resettlement generally concurs that the relocation of a large number of people causes major changes in their livelihood activities and difficulties in adapting to their new environment. The effect on the resettled group is usually less security in their livelihoods and in some instances an increase in poverty levels (Magaramombe 2010; Cobo et al. 2009). Livelihood insecurity does not necessarily have to be a result of unproductive land but shortfalls in other factors influencing livelihood reconstruction. Environmental conditions for growing crops can be sufficiently unfamiliar to require the farmers to adapt new cultivation practices or seek other income related activities (Kinsey and Binswanger, 1993).

It is necessary to develop a better understanding of the shortfalls of past resettlement schemes, and to identify the specific needs of the resettled people. Kinsey and Binswanger (1993) assert that resettlement initiatives generally assume that the resettled people will be willing and/or able to access credit, and argue that an overemphasis on access to credit as a means of successful resettlement is an ineffective approach. Factors such as the natural resources available to the resettled community should receive more attention, a sentiment which is echoed by Thebe (2011). Thebe (2011) argues that many resettlement programmes fail to consider the motivation and skills of resettled people as essential components in establishing sustainable livelihoods;
resettled people have specific needs, knowledge and skills, and they may benefit from support in these realms when reconstructing their livelihood strategy.

Sub-Saharan African farmers’ crop choices are generally dependent on the climate, especially seasons and water availability. Market access and marketability is one of the economic factors that influence their choice of crop, although it may be more important for commercial than subsistence farmers. Subsistence farmers may place higher value on other factors, such as taste. Furthermore, subsistence farmers look towards crops that require less investment and that are more resilient to various constraints such as pests (Greig, 2009). Against this background, we wanted to look into the decision-making processes undergone by farmers in a resettled community when it comes to establishing agricultural based livelihoods. By exploring the motivations behind the decisions the farmers make in response to the constraints they face, we hope to contribute to a wider debate on the needs of resettled communities in reconstructing their livelihoods. This debate may ultimately result in a more comprehensive approach in resettlement programmes.

Methods

We conducted a questionnaire survey (QS) based on random sampling to provide quantitative data on a broad range of aspects pertinent to our study as well as to provide us with a picture of the demography of the village. The QS formed the basis for the selection of our semi-structured interview (SSI) respondents, soil sampling and farm sketches. The SSIs were then carried out to provide qualitative data to supplement the data we had obtained from the QS and to explore particular areas of interest which emerged from our QS. They sought more in-depth answers covering key topics such as the natural factors which affect their choice of crops, the inputs applied by farmers and the additional livelihood activities they were involved in. We conducted SSIs with both ‘typical’ farmers and some who we perceived as interesting because of a particular aspect of their farm, their cultivation practices (inputs or extent) or their additional livelihood strategies. Moreover, we also interviewed a number of key informants from the village, the NGOs that are active in the area and relevant government officials. We did direct observation and informal discussions, visiting the farmers’ fields to observe what crops were grown, what management practices were used, the level of cultivation and the condition of the crops/livestock. We had informal conversations with the farmers to learn more about their constraints and perspectives. We used these direct observation and informal discussions to compare plots in terms of crop production practices as well as to triangulate the results from the SSIs and the QS. Transect walks enabled us to identify the types of crops grown, the current condition of the crops, and the management practices used in the community. We also did a number of Participatory Rural Appraisals (PRAs), including community mapping, farm sketching, time-line, preference ranking, and a seasonal calendar. Finally, we did soil sampling and analysis in order to get an accurate idea about the soil fertility in the village and to triangulate the perception of the farmers regarding the soil quality.

Results and Discussion

There is a diversification of livelihood activities in Village 3, with agriculture perceived as the most important by 57% of the farmers, and only 28% of the farmers considering small-scale businesses and casual labor as the most important. Most farmers keep livestock, but few regard it as their main livelihood activity and/or income source but more as a complementary activity to agriculture and for consumption purposes. Livelihood strategies are related to the background of
the resettled people; the farmers that originated from one part were recognized as hard workers and particularly eager to earn a living from agriculture, while others were more familiar with doing casual labor. Remittances are significant only for a small minority of farmers, whereas NGO support, i.e. relief food from Caritas, makes an important contribution to their livelihoods, making it clear that they cannot always make ends meet themselves, despite their access to land and their farming experience.

Farmers experience food insecurity despite efforts to insure against risks. All farmers cultivate a diversity of crops for their food security besides the staple crops of potatoes, maize, and beans. They are all using their half-acre plot, with more than half of them also cultivating some if not all of their 4-acre plot. Mineral fertilizers are not widely used, primarily because of the price, but free/low cost inputs that are more readily available are applied in most farms, such as crop residues and manure. The crop production systems are rain fed, and only a minority of farmers has the necessary equipment to harvest water. Some irrigate the least drought-resilient crops with water from the borehole, although this is not permitted by the authorities.

Water availability is a very important factor for determining crop choice. The area is frequently exposed to droughts, and there is no available irrigation. For this reason, farmers grow drought tolerant crops, such as beans and sorghum, although they still grow maize that generally does not fare well under the natural conditions of the area and has failed on several occasions. They persevere with maize because it is considered an important part of their traditional diet (ugali is made from maize flour) and because it can be stored. They seemed very determined to continue to experiment with maize cultivation despite the failed harvests. This led us to identify tradition as another relevant factor for their crop choice. Knowledge, both from their previous experience with farming and newly acquired through training, also plays an important role in farmers’ choice of crop production system. They cultivate the drought tolerant crops that they have been introduced to through training and generally consider knowledge received from training important for their decision-making.

Market access, however, was not significant for their choice of crop because few farmers have yet produced enough yields for them to be financially viable to sell. Only a minority of farmers has access to credit which does not make it an important factor per se but interesting nonetheless; most farmers mentioned that access to credit would in fact change their production system, as it would enable them to move into the cultivation of cash crops, such as wheat.

On this basis it becomes evident that there is a range of different factors affecting farmers’ choice of crop production system. Some of these factors may be referred to as apparent factors, as they are more obvious, both to the farmers and to outsiders. Among the apparent factors water seems to affect the farmers’ choice of crop the most. It has even led some farmers to choose other livelihood activities than crop production, such as casual labour, despite having 4 acres of land available for cultivation, simply because agricultural production in this area is very difficult without access to water for irrigation. Credit is another apparent factor, as farmers generally agreed that access to credit would change their production system to cash crops and invest in water harvesting facilities, which evidently would be good for the crops, particularly maize. Although certified maize seeds are relatively costly and a risky investment because of the exposure to drought and frost, they still continue to grow them, which seems to be due to what may be referred to as underlying factors like tradition and knowledge that are not as obvious to the farmers as the just mentioned apparent ones. They continue to grow maize even after its continuous failure, while their knowledge on cultivation practices seems to gradually affect their choices regarding other crops and use of natural pesticides.
There are also a number of supplementary factors, including the usage and access to inputs, land tenure, and marketability that do not affect farmers’ choice of crop production significantly on their own, but nevertheless have some impact on the apparent and underlying factors. For example, the farmers, in spite of their experience with displacement from their previous homes, generally feel secure in their present land tenure, encouraging a willingness to invest in crop production on their newly acquired land. However, they are constrained from doing so by a lack of capital, which access to credit could provide. Similarly, some farmers would like to apply pesticides to increase productivity, but again they do not have the necessary capital. Soil fertility was not considered a problem because farmers believed the soil was fertile. This perception was confirmed by the fact that a few households that did in fact have regular access to water for irrigation enjoyed some very good yields.

Conclusion and Outlook

Agricultural crop production is perceived as the most important livelihood activity in the village, despite being constrained by difficult climatic conditions. By combining agriculture with other activities the farmers have adopted a livelihood diversification strategy, which increases their overall livelihood security, and provides additional financial capital that some farmers choose to invest into agricultural expansion and coping with their water constraints. A lack of capital and water play a major role in influencing farmers’ choice of crop production systems, although tradition and knowledge also contribute significantly. The experience of Solio Village 3 suggests that resettlement programmes would benefit from a better contextual understanding of the specific constraints faced by farmers when reconstructing their agricultural livelihoods and to identify the most relevant forms of support which could assist the farmers in overcoming these constraints. This entails a more comprehensive assessment of the resettlement site’s potential, targeted training support, and government regulated credit schemes to enhance access to capital, which are all important elements of resettlement schemes that would benefit from more exploratory research.

References


