



Photo: Author

“Our children were born in amaranths”, proclaimed one of the members of the jipe Moyo group in Kerekese village.

Organising for organic agriculture in Tanzania

Petra Bakewell-Stone

Providing children with good, nutritious food, healthcare, clothing and education is at the forefront of the minds of most mothers. The women farmers of Mkuranga district, 40 km south of the capital Dar es Salaam in Tanzania, are no different.

What makes these smallholders different is their ability to mobilise into grassroots organisations in order to overcome the harsh realities of survival in rural Africa. Since 2004, local women have been collaborating on organic vegetable production and processing activities. At least six groups have formed and associated under the umbrella of the organisation *Muungano* (which means “union” in Kiswahili), with the aim of producing organic vegetables for increased food security and incomes.

Traditionally, farmers on these relatively infertile sandy coastal soils have planted rice and cassava, and have been dependent on income from the sale of coconuts, or more recently cashew nuts, to sustain their families. Producing organic cashew nuts is a new opportunity for farmers in Mkuranga. With facilitation from the SIDA-funded Export Promotion on Organic Products from Africa (EPOPA) programme, a large Dar es Salaam-based company, Premier Cashews Industry Ltd. (PCI), has converted

part of its system to be able to process certified organic cashew nuts. PCI has contracts with around 480 farmers in three villages in the district to grow and supply the organic cashew nuts.

Nevertheless, farming households remain highly vulnerable to changes in world market prices for cashews, and the unreliable climate and repeated droughts of recent years also place substantial pressures on limited household resources. The cultivation of organic vegetables has therefore been adopted as a strategy to supplement diets and low incomes, avoiding costly farming inputs. Locally, organic agriculture is understood as a system that promotes the use of natural fertilisers and botanical pesticides and prohibits synthetic compounds that cause environmental pollution. The women were motivated to adopt these principles by the desire to improve agricultural productivity for food security and income generation.

Forming community development groups

The local women’s groups grew out of discussions between leaders of the sub-villages and representatives of supporting institutions such as the EPOPA programme, a government research institute and non-governmental organisations already working in the area. With support from external organisations in the form of training and inputs, the women established and strengthened community development groups, the names of which; “Unity is Strength”, “Solidarity” and “Take heart”, highlight the spirit of their formation. Helping one another financially during difficult periods, such as with school fees and medical expenses, was one of the main motivations for the project.

The women grow fruits such as bananas and papaya, and vegetables including amaranths, sweet potatoes, okra, cassava,

collard and tomatoes. Farming is carried out through a mixture of traditional and novel practices such as mulching and the use of botanical pesticides. An intimate local knowledge of the area's ecological conditions has been merged with new technologies such as sunken beds and contour planting for soil and water conservation.

Applying preparations of papaya and neem leaves, and planting marigold (*Tagetes* sp.) on the borders of the seedbeds, are some of the strategies used to reduce pests such as grasshoppers and caterpillars that attack the vegetables. Sunn hemp (*Crotalaria juncea*) is also being grown as a green manure. Whilst these represent promising beginnings, more research and on-farm experimentation is needed in natural plant protection and integrated nutrient management. At the farm level there are further opportunities for managing pests by making the botanicals more effective (for instance in terms of active ingredients, forms, doses, storability and biocidal effects), using plants such as *Tephrosia vogelii* and pyrethrum to deter pests, and also for improving soil nutrient status and moisture retention with compost.

The reliance on locally-available natural and social resources and the internalisation of organic principles of production have improved overall agroecosystem sustainability in Mkuranga. Organic vegetable production has helped to diversify sources of food and income which is particularly important in an area where relatively good prices for cashews have resulted in neglect of food crops.

Social capital

Cooperation between women around a common goal has created powerful momentum in the drive for community development. In addition to vegetables, the local groups are engaged in many other activities such as producing red palm oil, handicrafts such as grass mat-making and basketry, local chicken-rearing and cassava milling to make flour for baking cakes and doughnuts. Although these activities used to be carried out individually, the formation of groups has meant that production is more organised, which has also increased access to markets.

The key to the success of *Muongano* is social capital, or mutually beneficial collective action amongst the women. The groups are organising their own meetings and field visits, and coordinate amongst themselves in a network. Cooperating in this way, their access to financial capital has also improved. By organising and registering officially, groups can access loans under national development programmes. Furthermore, group formation gives the women a voice, which improves their participation in policy dialogue, price-setting agreements and other decisions that affect their lives. By improving the productivity of food crops, which are generally the domain of women, the transition to organic vegetable production has also helped to address deeper gender relationships.

Since they started, these groups have attracted substantial interest, and would undoubtedly expand in membership and acreage, if it were not for the seasonally limited water supply.

Challenges for expanding organic production

Organic production activities in the area have been encouraged through the transfer of information on organic practices, but also through the provision of farming inputs such as seeds of early-maturing varieties, seedlings, manure, botanical pesticides, hoes, watering cans, a cassava mill and chipping machine. However, while such inputs have been a great support to the farmers, the uncoordinated efforts of external organisations have not been helpful to the development of their farming systems.

The needs of the farmer would be better met if the stakeholders could foster trust through a healthy level of collaboration and communication on matters concerning the farming environment.

So, far, the women's groups have been selling at local markets and directly to local schools. Formal certification of organic production is generally of low priority where production levels are low and most of the produce is marketed locally. However, after a visit by the manager of the national certification body, TanCert, the groups have decided to certify their production as organic. Organic certification is a marketing tool that can bring added benefits such as quality assurance, secure markets and premium prices. Specialist and general stores in Dar es Salaam are increasingly demonstrating their willingness to market fresh and processed organic produce, and large hotels are also emerging as a potential market. The relative proximity to the main national market lends itself well to expansion of trading activities.

Whilst certification could have many advantages, it will not solve all farmers' problems, and there are number of points to be considered before seeking certification. There is a risk that the financial benefits of certified organic production do not reach the farmers themselves unless the internal control system (a system to guarantee compliance to organic standards through collective self-inspection) is developed in a genuinely participatory manner. Training is important to raise awareness amongst the stakeholders of the meaning of certification and to give them an understanding of the entire process of establishing an Internal Control System; its procedures, potentials and limitations.

One of the greatest challenges to exploiting the domestic market for organic products is ensuring consistency of supply. Sustainable growth of organic agriculture is also dependent on the simultaneous development of the local market through campaigns to raise awareness on health and environmental issues as well as the existence of the organic alternative.

Conclusion

Whilst there are many opportunities for improving the sustainability of smallholder livelihoods through organic agriculture, these depend upon adequate human and social capital. The introduction of technologies and establishment of market linkages is of limited assistance without a corresponding expansion of awareness about organic production and trade and new ways of working together.

Organic agriculture that integrates both a production and a community focus gives an opportunity to secure sustainable livelihoods for smallholders in Africa. This can enable them to make more efficient use of available resources within the current institutional context and to build upon existing livelihood strategies. If community organisations, commercial enterprises and other stakeholders were to collaborate on certification procedures, this would bring additional benefits by combining farmer empowerment with production of high quality products for the concerned consumer.

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