

Kilimo Kwanza: A New Start for Agriculture in Tanzania?

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The emotional arguments about agriculture in Tanzania

From almost as long as what today is Tanzania had contacts with international markets there have been arguments about whether agricultural exports should be grown on small farms or large.²

The Germans started buying small quantities of crops from small farmers – but later encouraged settlers to plant coffee, e.g. on the slopes of Kilimanjaro, sisal, quinine, and other crops. Had it not been for the First World War German East Africa would almost certainly have become dominated by settlers. After the War, with the infrastructure largely destroyed and the future uncertain, it was again small farmers who provided most of the exports. Most British settlers preferred to go to South Africa, Rhodesia or Kenya. But Greek farmers took over some of the old German farms, and Germans were eventually allowed back. After World War two there was an influx of settlers, and in the 1950s they too began to organise politically. By Independence in 1961 agricultural exports came both from large farms (sisal, coffee, tea) and from small farms (cotton, coffee, cashewnuts).

One of the worst failures of foreign investment in Africa, the Groundnuts Scheme of 1948-55, demonstrated the perils of a blind faith in mechanised agriculture. It should have been a warning to everyone who followed.³

In the years before and immediately after Independence agricultural production by small farmers rose rapidly – cotton in the Lake Regions, coffee in all the highland areas, cashewnuts in the coastal areas, and (grown by larger but African farmers) tobacco around Tabora. Tea and sugar were grown on plantations, but also by small farmers in out-grower schemes. Small farmers demonstrated that, if the conditions were right, they could carry out complex technical procedures and produce crops of high quality that were tradable, often at premium prices, in international markets.

But the state, and its advisors, and many of the overseas governments providing finance and aid, continued to hark after large scale, mechanised agriculture. Hence the settlement schemes, abandoned in disarray in 1966-7. And much of the advice about how crops should be grown in ujamaa villages. Also large scale irrigation projects, most of which failed or never reached their planned potential. Or, an extreme case, the Basuto Wheat Scheme near Mbulu, given lavish support from Canadian Aid, and ultimately failing due to unreliable rains and fragile soils.

There was ambiguity over how African farmers should be regarded. If they expanded their areas of cultivation and employed wage labour, they risked being branded as

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² I discussed these in my book *Tanzania: A Political Economy*, Oxford, 1982

³ Coulson, pp.50-2; and Frankel, S.H.. "The Kongwa Experiment: Lessons of the East African Groundnuts Scheme" in *The Economic Impact on Underdeveloped Countries*, Harvard, 1953

“kulaks”. Traders who purchased crops were also vilified – and the co-operative movement was presented as an alternative which could guarantee that the full value of crops stayed with the farmers. In reality, as with traders, there were good and bad co-operatives.

These arguments continue today. Thus recent work by Lucia da Corta and Joanita Magongo shows how large African farmers growing cashewnuts in Newala and cotton in Sukumaland can get control of land and turn small farmers into wage labourers, with particular resulting problems for women and children. Rising prices of food have made things worse. When families cannot make a living in the rural areas, children suffer, and there is mass migration to towns and cities.⁴

The soils in the African savannah are often fragile, with risk of erosion. The top soil is often thin. The sun bakes the surface hard, making it difficult to plough. It often needs only light tilling, and crops, once started, grow extremely quickly in the right conditions. But there are many risks and hazards – more diseases and pests than anywhere else in the world, unreliable rains, unseasonable floods.

Small farmers learn to minimise these risks. Otherwise they do not survive. They grow many crops, planting them at different times. They use the soils to best effect. They minimise the inputs they purchase. They plant more than one crop in the same field. These are scientifically sound practices which can give small hand- or oxen-cultivated farms an advantage in terms of yield over large-scale farms where the crops are harvested mechanically.

There is no doubt that small farmers respond to price incentives. When the farm-gate price of a crop rises, then in future years farmers respond by planting more of that crop.⁵ However, there are debates about what happens if there are constraints, either of land or of labour or both. It may be that the farmers plant less of other crops – e.g. more maize less cotton when the price of maize rises relative to that of cotton in Sukumaland.⁶ It may be that land is used more intensively – with shorter periods of fallow for the soils to recover. Or rural residents may take up other opportunities in the informal sector.⁷ There may be ways of making more intensive uses of land sustainable in the long term, but they will mainly involve increased labour and use of fertilizers. The challenges will arise whatever the scale. Small farmers have shown that they can undertake complex practices when the benefits are apparent and the necessary inputs are available.

In China, the average plot size is 0.3ha (less than an acre), there are few large farms, and the country has become one of the most efficient producers of horticultural products in the world.

⁴ Lucia da Corta and Joanita Magongo “Evolution of gender and poverty dynamics in Tanzania” working draft, August 2010 London: Overseas Development Institute

⁵ This is not the same as concluding that they are necessarily efficient. For a theoretical discussion, see Frank Ellis, *Peasant Economics*, Cambridge 1988. The discussion goes back at least as far as Theodore Shultz *Transforming Traditional Agriculture*, Yale University Press, 1964.

⁶ Stefan Dercon “Peasant Supply Response and Macroeconomic Policies: Cotton in Tanzania” *Journal of African Economies* 2,2 pp.157-194 1993

⁷ Kjell Havnevik *Tanzania: The Limits to Development from Above*, Nordiska Africainstitutet, 1993

Small farms can make an important contribution to agricultural surpluses, selling either to traders or to co-operatives, or, on an out-grower basis, to those operating the first stage processing processes (as with tea, sugar, sisal).

The World Bank's Change of Heart

In the 1980s and 1990s agriculture was neglected by both donors and the government. With the world in financial crises, the prices of almost all Tanzania's export crops fell, as did the quantities of key export crops. Structural adjustment meant that infrastructure was neglected. World Bank schemes providing credit for fertilizers and other agricultural inputs were deemed to have failed, and were seen as one of the causes of the country's indebtedness. Economists suggested that agriculture in Tanzania, as in most other parts of Africa, was inefficient – and used the theory of comparative advantage (often incorrectly) to propose that Tanzania should expect to import much of its food. Donors turned away from agriculture, which was seen as a form of welfare – a means of keeping the rural population alive and away from the cities.

The situation was not a total disaster. In the 1990s, as the country came out of the recession, the official GDP figures show agricultural production rising faster than the population. The Household Budget Surveys show that ownership of basic consumer goods was slowly rising, although extreme poverty could be found in both rural and urban areas. But agricultural exports hardly grew: mining, tourism, and eventually manufacturing exports came to contribute more foreign exchange than agriculture.

But now, in 2010, the World Bank agricultural economists Binswanger and Gautam are extremely optimistic about the possibilities for agriculture in Tanzania. This is how they start a recent report:

Tanzania is undoubtedly one of Africa's sleeping giants. It is blessed with ample land and water resources suitable for agriculture ... It has a comparative advantage in the production of both food and export crops. ... International commodity prices have settled at higher levels than before the recent price spike and are expected to continue to rise. And the international trade environment has become more receptive for agricultural exports from the developing world. The first message of this report is, therefore, that it is time for Tanzania to gear up to seize these greatly improved opportunities in regional and global agricultural markets.⁸

A first reaction to this is extreme caution. Agriculture in Tanzania has always been uncertain. Famines have been documented from pre-colonial times, till the present day. We should not forget the images of dead cows, and dried up crops. Or the long frightening waits when it seems that the rains will never come. We should not forget that maize is a risky crop – but easy to grow. So there are cycles – after famines farmers plant drought-resistant sorghums and cassavas but the maize is more

⁸ Hans Binswanger-Mkhize and Madhur Gautam *Towards an Internationally Competitive Tanzanian Agriculture*, World Bank, Dar es Salaam, March 2010. I am much indebted to this paper, which was presented at the REPOA Research Workshop in Dar es Salaam.

profitable and it creeps back. Irrigation may not be a solution – most of the irrigation schemes depend on rain, and dams can run dry. Global warming is disrupting weather patterns – for much of Tanzania it may mean more rainfall overall, but concentrated in heavier and often unseasonal downpours, and periods of drought.

What has led the World Bank to this renewed interest in agriculture, and especially in food crops?

The world is entering a period of food shortages. The long term pressure from population growth and improved living standards have turned some of the world's biggest exporters, notably India and China, into potential importers. There are declining yields in some of the areas that pioneered the green revolutions based on high yielding varieties, plentiful water and chemical inputs. Global warming is taking land out of production (e.g. the extension of the Sahara desert to the South), while causing extreme weather conditions that impact on production (the recent floods in Pakistan, droughts in Australia). Large areas of land (in America, Brazil and the EU) that could have grown food are being used for bio-fuels. There are ever-growing urban populations to feed and increasing demands for meat and dairy products which depend on grain crops as feeds.

As a result of all these market forces, world prices for staple foods are rising, and expected to stay high for a number of years. Speculators have recognised the underlying shortages, and are pushing food prices even higher. In many countries this is having an adverse effect on the standard of living of people who not able to grow food – and there have been riots and towns and cities. It is likely to become increasingly hard to feed the large low-wage or unemployed people in the ever-growing cities of the world.

Tanzania has a floating exchange rate and its prices broadly reflect world prices. The World Bank analysis suggests that at present prices Tanzania should be able to sell rice (where Tanzania is the 3rd largest producer in Africa, and produces a high quality product), maize and cassava on world markets – though the most accessible markets will often be in neighbouring countries. It suggests that the prospects for exports of these foods are better than for the traditional beverages (coffee, tea) and fibres (cotton, sisal) even though in the last few months the prices for these have also risen. It also recognises that there is potential for increased production of horticultural crops and flowers – again by farmers large and small.

The Government Response – Kilimo Kwanza - “Agriculture First”

Kilimo Kwanza – “agriculture first” in kiswahili– adopted in 2009, is a recognition that agriculture can do much more than it has in the recent past, in the right conditions and with the right support.

It did not come out of the blue. Tanzania adopted an Agricultural Sector Development Strategy in 2001, and the Agricultural Sector Investment Programme in 2005 – though in both cases progress in implementation was slow.

The “Implementation Framework” for *Kilimo Kwanza* is built around ten pillars:

1. A national vision
2. A mobilization of financial resources – including a Rural Development Bank
3. Institutional reorganisation - good governance, good co-ordination
4. “Paradigm shift” - production of the right crops
5. Land titles, and use of land “to promote harmonious exploitation”
6. Better incentives, including removal of market barriers
7. Industrialisation – processing (forward linkages), fertilizers, seeds, machinery and tools (backward linkages)
8. Science, technology and human resource development – using an increased % of government income
9. Infrastructure – irrigation, storage, ports, airports, roads, markets, etc
10. Mobilization of all Tanzanians⁹

Of these, the most controversial is the second, because the record of agricultural banks in Africa is poor, especially in regard to loans to small farmers. There is also debate in Tanzania about the issuing of titles to land, since the traditional land tenure system has in many ways served the country well and allowed poorly used land to be redistributed. Titles to land, and the proposals to have separate area for crops and livestock, could underestimate the part played by mixed farming, and be very difficult for pastoralists if they lost their dry-season grazing areas. They could also lead to a growing class of landless labourers who would like to farm but have no access to land and who work for those who have land. But as a whole, if implemented, the proposals of *Kilimo Kwanza* would give a boost to agricultural production.

Many have understood *Kilimo Kwanza* as giving a green light to large scale agriculture. For example, a report published by OECD, asserts that small farms are inefficient, that lack of land titles is holding back production, that the only way ahead is to promote large scale farming.¹⁰ That is a convenient conclusion for those who want to channel money into large farms. It is not a correct summary of *Kilimo Kwanza* as a whole, and not the view of the World Bank report.

The Potential for Production from Small Farms

The big question is how to release the potential of production from small farms. To increase production small farmers need:

1. Access to land
2. Good prices
3. To be paid on time
4. Good roads, especially local roads
5. Good seeds – though mostly they will keep the best from last year, and use those
6. Availability of tools, fertilizers, insecticides etc if they want them
7. Appropriate storage and/or processing facilities
8. Market information – e.g. by mobile phones
9. Not much else !

⁹ Ten Pillars of Kilimo Kwanza: Implementation Framework, August 2009

¹⁰ e.g. Denise Wolter “Tanzania – Why a Potential Food Exporter is Still Importing Food”, OECD, 2010, www.oecd.org/dataoecd/35/33/41302291.pdf

There are plenty of ways in which they can be discouraged:

1. By not being paid – or paid late
2. Middlemen who take a big cut in the price – private or state
3. Unofficial taxes, e.g. at road blocks
4. Non-market restrictions, such as export bans or prohibitions on growing certain crops
5. Any other tax or bureaucracy
6. Lack of reliable seeds or rootstock.

When small farmers make profits, they generally spend them. The profit is recycled and makes possible other economic activities. They invest in better houses, better or more tools and inputs –so increasing agricultural production the following year - school fees, and consumer items or clothes.

Food prices may rise initially, but when production increases they may fall. Those who do not produce their own food, either in cities or in rural areas, will be worse off.¹¹ The Binswanger report argues that, in the long term, and perhaps optimistically, that if the incentives to increase production are maintained, there will both be more food and lower prices. However, if the government intervenes to hold down food prices, it can easily discourage production and make the problem it is trying to solve even worse.

Kilimo (agriculture) or *Maendeleo ya Vijijini* (community development)?

Most of the work in small-scale agriculture in Tanzania is done by women. In the 1980s and 1990s, many women involved in agricultural production became worse off.¹² Fundamentally that was because the prices for both export crops and food crops did not rise as fast as the prices for consumer goods, but there were also new costs, e.g. school fees. There were also in some places shortages of land, failures in marketing and/or processing, and lack of investment in infrastructure.

None of the above is an argument against agriculture or small scale agriculture. It is a commentary on the way the price system internationally and nationally worked at that time. It does not alter the fact that the best, probably the only, way to deal with poverty is to give rural communities more income. There need not be a contradiction between *Kilimo* [agriculture] and *Maendeleo ya Vijijini* [community development] if the increased income from agriculture goes to small-scale producers.

The Role of the State

So what should the state be doing to support small farmers? What are the key messages from and for *Kilimo Kwanza*?

¹¹ This is explored in some detail in Da Corta and Magongo's paper. They are particularly concerned about labourers in rural areas who do not grow their own food.

¹² E.g. Da Corta and Magongo, op.cit. Also Debbie Bryceson *Liberalising Tanzania's Food Trade*, UNRISD, 1993

Here are quick comments on three important aspects: seeds, research and extension.

An American company – Monsanto – is trying to control the whole world market in seeds. This it is doing by trying to get patents for new and some old varieties of seeds, and by promoting some specific GM (genetically modified) crops which require its weedkillers. Traditional varieties have adapted for local climates and risks, and can be further improved through plant breeding programmes, and genetic modification to add improved traits. Most hybrids add an extra complication because they need new seeds each year – seeds have improved traditionally by farmers selecting and keeping the best seeds from their crops. The most important task for the agricultural research stations in Tanzania is to produce improved seeds. The state then needs to ensure that an infrastructure is in place to test those seeds, to multiply them and get them to the farmers.

It is not easy to transfer the results of trials on a research station to conditions in the field. In research trials, it is common for tasks which cost money – such as weeding – to be done perfectly [for example in a trial to test the impact of fertilizer]. As a result, recommendations often do not take account of labour bottlenecks, or local situations, or the many benefits from mixed cropping. Farmers may then choose not to continue with the recommendations from research stations, and often they have good reason.

Extension workers may be unsure if what they are telling the farmers to do is the correct advice. If farmers are found to be rejecting their recommendations, then agronomists and economists should be employed to understand why this is happening.¹³ Maybe more extension workers should themselves be farmers and more should be women.

Conclusions

So what should the state do to support small farmers?

- It should try not to intervene unnecessarily, and to cut out all sorts of waste or non-productive activity
- If it does intervene, it should be to make markets work better
- Undertake agricultural research in close association with active farmers
- Undertake socio-economic research, including monitoring and evaluation of implementation
- Provide advice when new problems arise, e.g. new crops of plant diseases
- Facilitate exports – e.g. by ensuring easy passages at ports or crossing points
- Publish statistics and information¹⁴.

¹³ E.g. a very interesting report at the 2010 REPOA Research Workshop: Salatiel Simon,, M S Theofora and X Nyoni “Improved technologies disseminated by research institutions, the adoption rate and the extent of abandonment”

¹⁴ e.g. the mass of information about poverty in the *Poverty and Human Development Report 2009*, prepared by REPOA (Research on Poverty Alleviation) and published by them and MUKUKUTA, Ministry of Finance and Economic Affairs

Kilimo Kwanza has come at a good time. The need for more production is recognised, and trends in international prices are favourable. However, the challenge for Tanzania is to recognise that the agency for bringing about more production will not be the state. It will be the farmers, and primarily small farmers. If the state gets the fundamentals right, then at this time market forces will deliver the increased outputs.

But, going back to where this paper started, the issues are sensitive and surrounded by emotion. Having rejected the contribution of small farmers for a long time, it is hard to accept it now. Many of those who believe in large scale farming find it hard to accept that small farmers can generate surpluses. Many who have grown up with the idea that only the state can deliver development find it hard to accept that the role of the state should be to provide the conditions for development, not to be directly involved, and to keep its own costs down. There is a potential for increased agricultural production. But to achieve it will involve an almost complete change of mindset.

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