

Policy Brief



Agricultural Policy and Poverty Reduction in Tanzania

By Paschal B. Mihyo

Introduction

This book focuses on the role of rural development policy and its contribution to poverty reduction in Tanzania. It has seven chapters starting with an introduction on Ujamaa policy; chapter two on the role of education in creating capacity for innovation among smallholder farmers and chapter three on the introduction of tiller technology in selected districts and challenges that limited its adoption and diffusion. Chapter four analyses three phases of targeted input subsidies to farmers and the success and challenges of this policy in each phase. Chapter five is about the tobacco value chain in Tanzania and the future of this crop in the light of international regulations and competition. Chapter six compares the development and management of cashew value chains in Vietnam with and Tanzania. Chapter seven uses two case studies to indicate conditions that make it possible for state and civil society organizations to work together on poverty alleviation.

Ujamaa and collective production in rural Tanzania (Paschal Mihyo)

Mwalimu Julius Nyerere the founder President of Tanzania, devoted most of his policies and efforts to rural development through the policy of Ujamaa whose objective was the emancipation of the poor from abject poverty and deprivation. He abolished feudal tenure and steered the promulgation of the Arusha Declaration in 1967 as a blue print for socialist state driven development. Its implementation started with villages settlements which were self-directing and voluntary but when the pace of voluntarism became slow force was used to move people into planned villages. The policy failed to achieve optimum results for several reasons. First as people were moved from their traditional habitats, they lost motivation to work. Secondly, the implementation shifted from participatory to coercive approaches which led to resentment. Third while the President was committed to equality and grassroots based participation, his implementers believed in top down prescriptive and bureaucratic approaches. Fourth, the policy was predicated on assumption of communalism and collectivism as inherent features of African systems of production and distribution while those practices were already surpassed by the emergence of commodity production and capitalism even before colonial invasions. Due to these and other factors, Ujamaa policy neither reduced poverty nor did it increase prosperity for the poor or the country as a whole.

Education and Farm Productivity in Rural Tanzania (by Lucas Katera¹)

The chapter contains an empirical investigation of the impact of formal and informal education, access to land and credit on agriculture productivity. The analysis supports the importance of basic education, informal education, access to land and accumulated farming experience in farm productivity. Data on the impact of education on innovation and adoption of technology, shows that having over and up to 6 years of formal schooling, ownership of productive assets and long experience in conservation and farm management, have a significant impact on the adoption of farm innovations,

¹ Dr. Lucas Katera is Senior Researcher and Director of Commissioned Research at REPOA.

farm productivity and rural poverty reduction. The data also show that very few smallholders make investments in productivity drivers such as erosion control and water harvest (10%), planting trees (13%) and the use of extension services (36%) and that the average yield of maize for farmers who adopted erosion control and/or had water harvest facility was 886kg compared to 618kg for those who did not have such a facility on their farms. Those with an average yield of 880kg had also planted trees on their fields compared with 608kg for those who had not. Farmers who had accessed extension services had an average yield of 747kg compared to 586kg for those who did not use extension support.

Table 1: Average Harvest for Each Innovation (kg of maize yield)

| | Yes | No |
|---------------------------------------------|-------|-------|
| Have erosion control/water harvest facility | 886.4 | 617.8 |
| Have planted trees on the field | 880.3 | 608.4 |
| Use of extension services | 747.0 | 586.0 |

The findings also show that both formal and informal education are significant in affecting the adoption of farm innovation and that when farmers are exposed to considerable periods of learning, they diffuse new knowledge and technology and that while access to credit does not influence major decisions on erosion control/water harvest facility and planting trees in the field, it is positively significant in explaining the use of extension services.

The study concludes first that both formal and informal education are significant in affecting the adoption of farm innovation because formal education gives general knowledge of literacy and numeracy which enables a farmer to appreciate the importance of innovations and to be able to adopt such innovations quickly and informal education provides location-specific needs, making innovation easily assimilated by farmers. Secondly that achieving self-sufficiency in food production and the much-desired growth in the agriculture sector of the economy will continue to elude Tanzania if problems of accessing formal education among farming communities are not properly addressed.

Frugal Innovations for Inclusive Development: A case Study on Power Tillers in Tanzania. (by Donald Mmari² and Sylvester Mpanduji³)

The research on frugal innovation was carried out to inquire on the conditions under which frugal innovations can stimulate development in the African context focusing on Tanzania. This case study provides an analysis of the institutional processes underlying their introduction and adoption, and the design features reflecting the suitability of the power tiller innovation in relation to their expected contribution. Two districts were selected from two regions with the highest number of power tillers, namely Mbeya and Morogoro and in each of them districts with a high number of power tillers i.e. Mbarali for Mbeya and Kilombero for Morogoro.

The introduction, diffusion and modification of this technology were characterized by a few challenges. First, choice of technology was based on price rather than quality leading to too many types of tillers

² Dr. Donald Mmari is Senior Researcher and Executive Director of REPOA
³ Engineer Sylvester Mpanduji is Senior Lecturer Sokoine University of Agriculture and Director General of the Small Scale Industrial Development Organization (SIDO)

with spare parts incompatibility. Second, the technology was not designed to operate in the local interface conditions and this led to locally driven re-engineering with problems of adaptation. Third, the tillers were used according to the needs of farmers and not those for which they were designed leading to diffusion challenges. Fourth was the problem of durability as most tillers quickly ran out of service. In spite of these challenges modifications helped farmers to meet their diverse goals as shown in Table below

Table 2: Usage of power tillers in Mbarali and Kilombero districts

| | Activities | Mbarali | | Kilombero | |
|---|----------------|-------------|-----|-------------|----|
| | | Respondents | % | Respondents | % |
| 1 | Farming | 60 | 100 | 7 | 17 |
| 2 | Transportation | 46 | 77 | 31 | 66 |
| 3 | Irrigation | 6 | 10 | 0 | 0 |
| 4 | Threshing | 2 | 3 | 0 | 0 |
| 5 | Grounded | 0 | 0 | 8 | 17 |

Source: Survey data

In addition although results differed from district to district, transport costs were reduced. Furthermore there was increase in agricultural productivity and for most of the users and area of cultivation increased for more than 80% of the farmers interviewed. The study concluded that top down approaches in the introduction of technology to farmers reduce their capacity for choice, adoption, adaptation, diffusion and modification and that power tillers attract young people and have a big potential for reducing rural to urban migration and reduce farmers' reliance of crude technology such as hand tools in agriculture.

The study recommends adoption of the political economy of agrarian transformation approach in planning in order to address the diverse needs of the farmers and package interventions and further research to benchmark systems and processes involved in product designs or re-design that embed characteristics of frugal innovation to make such products functional in the local circumstances, user friendly, and affordable to those at the bottom of the social pyramid in rural society.

The Impact of Agricultural Input Subsidies on Poor Smallholder Farmers: Lessons and Challenges for Implementation of National Agricultural Input Voucher Scheme in Tanzania (By Cornel Jahari⁴)

Agricultural subsidies to smallholder farmers have been a priority of the Tanzanian government since the early sixties and policies to that end have evolved through various initiatives. The research question addressed by this chapter is: To what extent do systems of agricultural production and governance in the distribution, management and utilization of agricultural inputs influence the impact of subsidized inputs on agricultural production and productivity of small holders.

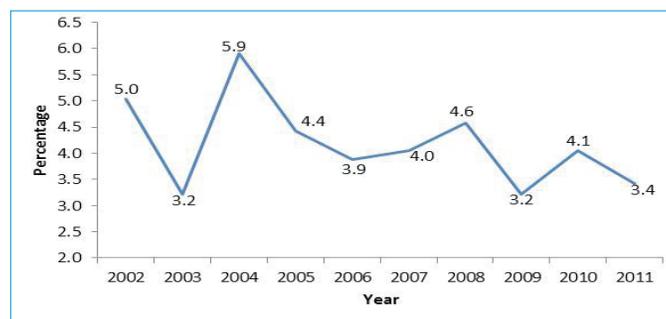
The evidence on the implementation of the National Agricultural Input Voucher Scheme (NAIVS) launched in 2008 targeting the poorest of the poor small holder farmers shows that it has not contributed to significant change in the overall agricultural productivity and outputs.

The growth rate in the broad agricultural sector has shown rather

⁴ Cornel Jahari is Researcher and Field Manager at REPOA

stagnant trend and maintains the same growth trend on an average of 4 per cent as indicated in Figure 1 below.

Figure 1: Average Annual Growth Rates of Agriculture (2001 Prices)



Source: Adopted from National Account (URT 2012)

4.4.4.8 Land productivity

However, although the overall productivity for main food crops in Tanzania has shown a significant rate of growth there was no huge difference before and after the implementation of NAIVS. Furthermore, maize and rice did not show their potential role for food security as compared to some other crops such as sweet potatoes. Nevertheless, the research results overall, the producer subsidy has contributed to the smallholder farmers' yields and income as smallholders who received vouchers and used them to purchase improved seeds and fertilizers produced an average of 7 bags of 100 kilograms of maize per acre and those who did not use the technology harvested an average of 4.4 bags only. Notwithstanding these achievements, the NAIVS program appears to have excluded the poorest of smallholder farmers and although most farmers were aware of the scheme, their level of knowledge about eligibility criteria, participation and time limit was low. Moreover, the process of identification and selection of scheme participants was not very transparent. The study recommends the review of criteria for eligibility to ensure the poorest farmers are captured and remain beneficiaries; to reorganize cooperatives to increase transparency in the distribution of inputs and to increase integration of farmers into markets at national and regional levels.

Analysis of the Competitiveness of the Tobacco Value Chain and Export (By Jamal B. Msami⁵, Moses Tekere⁶ and Calvin Manduna⁷)

The tobacco industry some 1.45 million people and accounts for 29 per cent of Tanzania's export earnings but despite its economic impact it has resulted in massive environmental damage (deforestation) and caused negative health consequences for the growers, smokers and non-smokers. In Tanzania, debates on the future of tobacco have been intense. There are some 2.88 million tobacco users (including 50,000 children), with an estimated 6,800 annual tobacco-related deaths. Some studies found that 32 per cent of cancer deaths in Tanzania were related to tobacco. Anti-smoking activists have called for strengthening of the Tobacco Products (Regulation) Act, 2003.

In terms of good agricultural practices, a key concern has been the

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deforestation and soil-degradation associated with tobacco cultivation as farmers use wood for curing. Deforestation causes soil erosion, loss of soil productivity for food crops, depletion of timber for other uses like construction and cooking. Other problems stem from the use of agro-chemicals in tobacco farming such as pesticides, fumigants, insecticides, fungicides, etc. which is associated with destruction and contamination of ground water sources.

The tobacco sector faces environmental and health challenges, efficiency of the marketing system, and achieving higher yields and productivity. Problems of side-selling have declined but still exist. Poor governance, including corruption, of primary societies and unions remain a challenge. Any inefficiency in the primary societies presents a major bottleneck as they are key actors in organizing credit, inputs and extension services. Production costs in Tanzania are high and declining demand has reduced profitability as buyers also look at lower cost producers in Malawi and Zambia. In 2015/16 only, 16 percent of the government's development budget was disbursed, meaning projects such as mapping of farmland, issuance of title deeds, inputs schemes, construction of warehouses and support for research and extension services were limited.

The study has concluded that Tanzania's tobacco is at the crossroads with shifts taking place that may impact future demand and attitudes towards tobacco and while tobacco is a major foreign currency earner for the country with values of its exports soaring sustaining livelihoods of millions of people, the anti-smoking campaign and FCTC that Tanzania ratified make its long-term future is questionable

It is therefore recommended to the Government take measures that can improve the competitiveness and quality of leaf tobacco and curing processes that can lead to better grades. It is further recommended to invest more in processing infrastructure to create greater value addition and look to alternative growing markets like Asia and the Middle East and at the same develop a clear long-term strategy to guide diversification away from tobacco and strengthen alternative crop value chains.

Contrasting Tales of Value Chains: Tanzania and Vietnam (by Blandina Kilama⁸)

This chapter compares the value cashew chains in Tanzania and Vietnam with the aim of distilling lessons that can be learnt from Vietnam to improve management of the value chain in Tanzania. Vietnam looks at policy holistically and differently from the Tanzanian state and is seeing improvements in production, productivity and the well-being of its citizen whereas Tanzania's position is marked by erratic changes in production, decline in productivity and stagnation in farmers' well-being. Marketing in Tanzania has resulted in low-quality produce and low prices with farmers being locked in a Prisoners' Dilemma that leads to a low-productivity, low-quality equilibrium. In Vietnam, adaptive efficiency has resulted in farmers producing high-quality produce and high prices being offered by processors. This case study of cashew has shown that freedom of choice for farmers in Vietnam provides alternatives and is a credible threat to processors while involvement of the state with the inclusion of a single stakeholder and the exclusion of the others restricts expansion of the entire sector as is the case in Tanzania. Vietnam shows that markets that are strategically supported by the state perform better.

⁸ Dr. Blandina Kilama is a Senior Researcher at REPOA

When looking at the Tanzanian case, it is easy to single out the involvement of the state as an impediment to the expansion of the cashew sector. The Vietnamese government is also heavily involved in the cashew sector and provides new varieties, improved roads, electricity, and research and development, and also regulates standards for processors. A strong state with a strategic industrial policy provides a favourable environment for the private sector to operate in and allows adaptation to new environments in a sustainable manner. In Tanzania, the state allocates resources to minimize the costs of production for only one group, i.e. the farmers in the short term, with limiting multiplier effects. The marketing of cashew and inputs in Tanzania is centralized, with the state playing a leading role. The market for kernels has, however, remained on the free market, while raw cashew, kernels and inputs are all on the free market in Vietnam.

The issue here is not the involvement of the state *per se* but rather the role it plays. When the state operates as a catalyst and involves other stakeholders, backward linkage through vertical integration and economies of scale are encouraged. But when state investment seems to provide incentives that support only some stakeholders, i.e. forward linkage, this limits the benefits to those stakeholders and results in diseconomies of scale for the entire sector. The support system for cashew in Tanzania faces challenges, especially regarding resources and insufficient and aging staff. The inability to create a strong private sector forces the support system to act defensively and provides little to no room for manoeuvre with regard to the provision of inputs.

In Tanzania, spot contracting works through centralized marketing and results in low-quality produce and low prices. This means that hold-up in Tanzania works adversely, with farmers being locked in a Prisoners' Dilemma, which leads to a low-productivity, low-quality equilibrium. In Vietnam, on the other hand, relational contracting has resulted in high-quality produce by farmers and high prices being offered by processors. This means that hold-up there is not only confined to the cashew producer but also applies to the processors who have to confront the threat that farmers may opt out of growing cashew in favour of a competing crop, such as rubber.

The problem of spot contracting is solved by creating trust, which is cemented through reputation. The issue of trust in Vietnam is at a different level. With economies of scale, farmers who already have economic freedom needed to be paid fairly to avoid the collapse of the whole system. At the same time, big processors need to adhere to standards and act as an example for other processors. The government would ultimately find it easier to control a few big processors, but they might have to subcontract part of their work to smaller processors. Trust and reputation matter a great deal in relational contracting.

The author recommends further liberalization of the cashew market; decentralization of input distribution; a robust private sector participation and diversification of agricultural production to reduce farmer dependency on cashew and to increase their bargaining strength.

Successful Collaboration between Government and Civil Society Organizations for Poverty Alleviation in Tanzania: Two Case Studies (By Paschal B. Mihyo)

This examines relations between the state and two civil society organizations namely, the Mtandao wa Vikundi vya Wakulima Tanzania (MVAWITA) a National Network of Small-Scale Farmers' Groups in Tanzania on the Mainland and the Misali Conservation Association (MICA) on Pemba Island in Zanzibar. These two associations have managed to establish effective partnerships through which they have provided platforms for their members to lobby government, share in the benefits of land utilization, make contributions to policy reform and review and generally contribute to poverty reduction. Their success is attributed to their inward-looking policies, their capability to mobilize visible and reliable membership, their grassroots orientation, democratic leadership and organizational structures, linkages with local authorities and departments of government relevant to their needs and activities and their inclusion of policy actors in their decision-making bodies at the top level.

In addition, MICA and MVAWITA share common characteristics that attracted them to government bodies for partnerships. They are producers' associations with the aim of raising the living standards of their members. They are mainly dependent on local funding with development partners supporting them. They are grassroots based with committees at village, ward and district levels. They provide voice to constituencies that matter in local and national decision making and politics and therefore they have a bargaining leverage which cannot be ignored. They are aware of their identity and their limitations. Therefore, they do not perform the roles of political and because of this governments in Tanzania Mainland and Zanzibar do not consider them to be anti-governmental. These are a few attributes that have made these two associations able to enter into effective partnerships with government, deliver on their mission and influence policy. Their experiences are worth following up if other civil society organizations want to have more impact on policy and poverty alleviation. The chapter recommends closer cooperation between government and CSOs; increased funding to CSO by government to reduce their dependence on donor funding; regular consultations between the CSO forum and government and for CSOs to desist from playing the role of political parties.

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