



AgriFoSe2030

Agriculture for Food Security 2030
- Translating science into policy and practice



Taking into account regional agricultural conditions in policy reforms – the case of Tanzania

This brief is based on a desk study aimed to investigate the factors that are responsible for the regional disparity in agricultural performance and food security in Tanzania. It highlights the impact of subsequent regional agricultural policies in the country to support agricultural performance.

Background

Tanzania is defined as a low-income country with roughly 27% of the population currently below the poverty line. The agricultural sector is a major source of employment in Tanzania and contributes to about 29% of foreign exchange earnings, and provides 95% of the food consumed in the country. Given an enabling environment, the agriculture sector has the potential and capacity to effectively contribute to poverty reduction and equitable development in the country. However, the gains from agricultural productivity increases have been uneven across regions in the country. Production of crops and livestock keeping has shown considerable regional differences, where crop productivity is increasing in some regions of the country, and are lagging behind in others. For instance, the southern regions, comprising of Ruvuma, Songwe, Katavi and Mbeya regions have higher maize crop productivity and produce more food compared to all other areas of the country and also slightly higher than the East Africa average maize productivity. On the other hand, the low agricultural productivity in some regions

Key messages

- Food insecurity in some parts of Tanzania is linked to variations in agricultural conditions, for example different weather conditions, poor infrastructure and the absence of buffers for food shortages.
- Increased resource allocation to implement effective extension services and trainings will accelerate adoption of improved agricultural inputs to increase agricultural productivity.
- Efforts to improve infrastructure such as irrigation, roads, and electricity need to be balanced throughout the country to avoid regional differences in food insecurity.
- Strengthening of agricultural marketing institutions will increase marketing awareness among all value chain actors and reduce disconnection between farmers and the market, resulting in better farm profitability.

(such as Pwani, Mtwara and Lindi) contributes to an aggravation of rural poverty and food insecurity in some parts of the country. The disproportion in agricultural production is a subject of deep concern



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because local variation in agricultural production affects price stability, reduces purchasing power of consumers in food deficit regions, and increases vulnerability of low-income households.

Regional agricultural variations and malnutrition

Famine in Tanzania is a seasonal and climate-dependent phenomenon as food shortages, and subsequent acute famines, are generally linked to weather-related circumstances. Regions with seasonal rainfall such as the central zone usually experience food shortages before the start of the rainy season in December. Northern regions with two rainy seasons per year have also been experiencing some periods of food shortage due to extreme drought. Apart from climatic shocks, food insecurity in Tanzania is primarily linked to the absence of buffer stocks for food shortage, low agricultural productivity, and large number of poor households.

As a consequence of food insecurity, and according to the 2015-2016 Tanzania Demographic and Health Survey (TDHS), almost 35% of children under the age of 5 years are stunted or short for their age, a condition reflecting cumulative effect of chronic malnutrition. Stunting prevalence varies by regions. Areas with high food production, but with low family

household incomes experience relatively high stunting rates; such as in the Southern Highlands (44.7%) and South West Highlands (43.1%) compared to other regions like Dar es Salaam (14.6%) with the lowest food production but with higher family household incomes. Similarly, three nutritional status indicators; wasting, stunting and underweight, are highest among children in the poorest households and lowest among children with the highest wealth.

Factors for uneven agricultural development in Tanzania include variability in weather conditions across regions, varying levels in soil fertility, access to irrigation technology and varied infrastructural development across regions. There are, apart from these factors, other determinants which are discussed below.

Varying use of improved agricultural inputs

Fertilizer application and use of improved seeds are critical factors for making crop production a viable undertaking, especially when there is climate variability and depletion of soil nutrients. There is great variation in the use of inorganic fertilizers and improved seed varieties in Tanzania. In southern regions the application of inorganic fertilizers is higher compared to other regions. This is due to

commercial farmers' awareness of the benefits of using fertilizer for higher yields and having enough capital to buy inputs. The high potential areas of the southern and northern highland zones use improved seeds, while farmers in marginalized areas use local varieties due to high prices of improved seeds. To increase yields in dryland areas like central Tanzania, improved seeds need to be applied simultaneously with irrigation and fertilizer, a combination out of reach for most smallholder farmers.

Generally, the variation in the use of improved agricultural inputs may be attributed to lack of income, mistrust of input dealers, poor knowledge and lack of information on which type of improved seed varieties to be used in respective regions or agro-ecological areas. Also, lack of credit prevents access to agricultural inputs for the majority of farmers in the country. Thus, effective extension services, such as farmers' education and farmer field schools, to increase awareness among farmers and improving farmers' access to credit are crucial.

Infrastructure, markets and value chains

Enabling infrastructure for production, transport, storage, processing and marketing of agricultural products is often not integrated, especially not in rural areas. This reduces market access and value addition opportunities for farmers as well as for domestic and foreign private investors interested in Tanzanian agriculture. Tanzania's infrastructure is generally insufficient and of poor quality, hindering access to markets and inputs for smallholder farmers. For instance, Mbeya, Rukwa, Ruvuma, and Iringa regions account for 35-40% of Tanzanian maize production. However, poor road infrastructure makes maize transportation costly. This leads to a barrier for maize to be transported into areas of food insecurity. Furthermore, lack of storage and processing facilities leads to high post-harvest losses, common for example for oranges in the Tanga region and tomatoes and onions in the Singida region.

Smallholders in Tanzania are generally suffering from a lack of agro-processing actors and value chains for creating demand of farm produce, and connecting farmers to markets. Improved integration of value chains by effective exchange of information between value chain actors, provision

of inputs to smallholders by processors, and the organization of farmer groups would increase farm profitability and incentives for more investments in increased productivity.

Economic impact of successive agricultural policy reforms

Whenever food shortages are projected in the country, the Government implements ad hoc policies such as export bans to avert and/or redress the problem. However, the manner in which these policies are applied is problematic, in that market prices prevailing in the foreign markets are often higher than the domestic market. This results in a disincentive effect for farmers and investments in the agriculture sector.

Tanzania has, since its independence in 1961, established a number of policies related to agricultural development. These reforms include market liberalization, removal of state monopolies, withdrawal of the Government from production projects, and increased reliance on the private sector. The main policy objectives have centered around improving productivity to ensure food security and food supply, raising food self-sufficiency, exploiting export potential, and providing stable and sustainable income levels in agriculture.

In the last fifteen years Tanzania has shown a remarkable improvement in crop productivity. The agricultural production has increased and food security in terms of food availability has reached a self-sufficiency level for major food crops. This great achievement is a result of the Agricultural Sector Development Programme, which the Tanzanian Government adopted with support from major donors in 2006. Despite this great success and improvements, large regional differences in agricultural productivity still remain in Tanzania. Reducing these regional gaps in agricultural production and productivity is still an important target for accelerating the growth of economy, maintaining national integration and political stability.

Conclusion and policy recommendations

There is a potential to facilitate a more equitable agriculture development in all of the agricultural regions in the country. Following



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are recommendations to address the issues and problems identified and discussed:

- The Government should increase resource allocation and initiatives equally across all regions. This should include improved infrastructure, such as irrigation schemes, food storage facilities, rural road networks, and reliable energy supply. It would attract more investment in the sector, also increase agro-processing and value chain actors' demand of farm produce; making small-scale farming more profitable in all parts of Tanzania.
- Private value chain actors should be incentivized to connect to farmers in all parts of the country to ensure equitable distribution of profits along the agriculture value chain. Approaches such as contract farming, which includes provision of agricultural inputs and extension services, may help to reduce transaction costs of dealing with smallholders.
- With more focus in low productivity regions, supporting and developing farmers' cooperatives can boost entrepreneurship and competitiveness. By improving extension services and offering capacity building, farmers need to begin using modern technologies for crop and livestock production and management and get better in financial management and basic marketing skills (e.g. market planning, market survey, contracting, and accessing financial services).
- The Government should focus on increasing crop productivity in regions with low crop intensity and productivity but that have high agriculture potential, to provide new direction to the country's agricultural development. The increased productivity will be better aligned with the country's industrialization strategy, that fosters rapid agricultural growth required for investments in agro-processing firms.

This brief was written by Arbogast B. Moshi, Department of Economics and Statistics, The University of Dodoma, Dodoma-Tanzania.

We thank the AgriFoSe2030 programme and the Swedish International Development Agency for the financial support provided.

We thank our partners and researchers involved in the programme for the knowledge and ideas provided.

Review acknowledgement to AgriFoSe2030's Communication and Engagement team.

For more information contact:
Arbogast Moshi at abmoshi@yahoo.com

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