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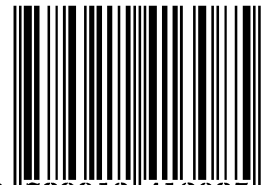
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# **Reflection on Agricultural Development in Tanzania Since Independence: The Success and Challenges**

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## **Abstract**

This paper evaluates agriculture in Tanzania since independence. Specifically, the paper has assessed the success and challenges in agriculture in the mentioned period. The paper has adopted literature survey method to evaluate agricultural development in Tanzania since independence. The study revealed that for about two decades after independence, the growth of agricultural sector remained relatively low. The government has done some efforts to improve agriculture. These initiatives include of the National Agricultural Policy, Agricultural Sector Development Programme, and the Kilimo Kwanza. The Southern Agricultural Growth Corridor of Tanzania (SAGCOT) and Big Result Now constitute part of the initiatives. Despite the major initiatives, agriculture in the country remains dominated by smallholder farmers characterized by family labour. Success stories of agriculture in Tanzania include nationalization of the land which created easier access among the farmers and increase in maize production in early years after independence and development of the training institutions dealing with agriculture. On the other hand in Tanzania agriculture in Tanzania is constrained by shortage of capital among majority of the farmers, climate change due to the dependency on rain cycles, low technological adoption and challenges linked to inadequate policy implementation. The study concludes that despite its overall contribution in the livelihood among the communities in Tanzania agriculture remains constrained with a couple of challenges. This reinforces some measures to improve agricultural productivity. The study recommends on technological improvement that will reduce reliance on climate and upscale small scale agriculture. Secondly, dedication on sustainable irrigation farming is prerequisite to upscale agricultural performance. Likewise, creation of enabling environment particularly among the smallholder farmers including the provision of subsidies is very key for the prosperity of agricultural performance.

**Key words:** agriculture, development, success, challenges

## **1. Introduction**

Agriculture is the most comprehensive word used to denote the practice which involves crop cultivation and domestication of animals to sustain human population with food and other products (Harris and Fuller, 2014). As for this paper, crop husbandry will be the focus. Tanzania has a long history in agricultural practices. Prior to independence, agricultural practices was mainly dominated by peasant form of agriculture (Brycen, 1988).

After independence, the country continue experiencing similar forms of agricultural practices. Around two decades after gaining political independence the status of agriculture remained largely stagnant (Wineman *et al.*, 2020). Despite the aforementioned progress, agriculture is the leading employment sector in Tanzania which accounts for nearly 80 percent of Tanzania labour force. In addition to the said contribution, agriculture contributes to a quarter of the gross domestic production (Benson *et al.*, 2017; Cooksey, 2012). As posited by Limbu and Mashindano (2002) agriculture is the leading engine for Tanzania's economic growth and that is an escapable economic sector for the country's economic life. It is the sector which provides linkages with the other economic sectors in Tanzania such as industries, commerce, health and water sectors.

This means changes in agriculture directly translates positive or negative changes among the communities which are engaging in agriculture. Agricultural development translates into development of the other sectors such as industrial sector which also depends on the raw materials from the agricultural practices. In the opposite, stagnation of agriculture directly undermines prosperity of the other sectors within the cycle. Most of Mwalimu Nyerere's life was dedicated to develop the nation's rural livelihood through a number of policies and measures generally geared towards agricultural development. Nonetheless, he did not live to see its realization (Limbu and Mashindano, 2002). Agricultural intervention reforms in Tanzania since independence can be clustered across different epochs. This paper focuses on three main clusters: early years after independence, the Arusha Declaration epoch and the liberal market economy.

After independence the country continue practicing peasant agriculture with some few large scale commercial farms being controlled by the settlers. These included the sisal and cotton plantations, just to mention a few. The government of Tanzania has done a lot since independence to make sure that agriculture improves and brings positive impact in the country. The first major initiatives can be reflected in terms of the introduction of the Ujamaa Policy. The Policy

emphasized rural development through the abolition of exploitation, implementation the government's control on the means of production, land agriculture being among of them (Kabote, 2022).

The policy was characterized by the transformation of the agrarian structure in Tanzania into Ujamaa villages. Under this structure production would be based on the principles of solidarity, equality and communal work (Palloti and Tornimbeni, 2015). During the villagization epoch, the government introduced and implemented agricultural politics popularly known as "Siasa ni Kilimo". This policy was inaugurated in Iringa Region in 1972, "Kilimo cha Kufa na Kuona" (Live or Die for agriculture) in Moshi (1983) and the irrigation farming as well (Kabote, 2022).

The major agricultural policy initiatives of the 2000s century is the Agricultural Sector Development Programme, which occurred in two phases (ASDP-I and ASDP-II). Other policy initiatives were the introduction of the *Kilimo Kwanza* which was introduced in 2006 to champion the transformation of agriculture from the subsistence to commercial level (Mkonda and He, 2016). The Southern Agricultural Growth Corridor of Tanzania (SAGCOT) for irrigation farming and the Big Result Now which covered agriculture and other socio-economic sectors.

With all the mentioned reforms agriculture has not adequately addressed the country's socio-economic development. As revealed by Mashindano *et al.* (2011) economic growth in Tanzania was not associated with poverty reduction especially in rural areas because agriculture which employs the majority was growing slowly in comparison with the other sector like industries. The main challenges constraining farmers are not adequately implemented to make agriculture more promising and sustain their livelihood. Majority of the farmers revolve under the traditional farming practices with little technological adoption. This paper is the reflection on agricultural development in Tanzania since independence with respect to the success and challenges so far the sector experiences.

The paper informs policy makers, planners and practitioners on policy implementation challenges which partly appears to constitute to low agricultural development in Tanzania. This information is important for the mentioned parties to device interventions on policy implementation geared towards agricultural development. Further, the study contributes to address Sustainable Development Goals especially Number Two. This Goal stress on promotion of sustainable agriculture, eradication of hunger and ensuring food security. This is also closely connected with Goal Number One which emphasises poverty eradication.

## **2. Methodology**

A lot has been documented about agricultural practices in Tanzania. This paper adopted a literature survey methods to evaluate agricultural development so far achieved since independence. The nature of the data was based on vetted literature on agricultural trends and development in Tanzania since independence. Other sources of information were fact and figures reports and agricultural reports from the National Bureau of Statistics the Ministry of Agriculture, Food Security and Cooperatives (MAFC). The rationale for extensive literature survey data in this study was to use this information in triangulating the facts for the relationship between the trend of agricultural development in Tanzania for the period of six decades. The literature survey method its thematic analysis were therefore chosen to provide a broader perspective on the agricultural development in Tanzania which included a national analysis on agriculture in terms of the success and challenges.

## **3. The Success and Challenges of Agriculture in Tanzania**

### **3.1 The Success**

Since independence Tanzania has been recognizing agriculture as the backbone of the country. To date, agriculture remains the leading employer in the Tanzania's labour force leaving aside food provision in the country and outside. This means agriculture is the livelihood strategy of majority of Tanzanians. To foster agricultural development the Government of by then Tanganyika under the Leadership of Mwalimu Nyerere devised some measures to address agricultural development. This measures include the Arusha Declaration in 1967. This was the major initiative to foster the national development. Among the other socio-economic sectors in Tanzania, the declaration placed a particular emphasis in agriculture and rural development. Among the resolution was nationalization of the land as the major means of production. The nationalization initiative abolished inequalities in the access and ownership of the land. In early years after independence maize production increased in response to the increased price of food crops in the World Market (URT, 2008; URT, 2013).

Furthermore, the country has made an important step of establishing agricultural institutions and research centers. These institutions the Sokoine University of Agriculture which is the leading agricultural institution in the country and the colleges. These institutions build capacity in different agricultural areas. The challenge with these institutions dwells on the inability of the majority of farmers to access knowledge offered from these institutions (Mkonda and He, 2016). Recently, some interventions have been introduced by the Government especially

to increase the budget allocated on agricultural sector and financing small holder agricultural projects. However, these interventions may not yield results recently.

## **3.2 The Challenges Constraining Agriculture in Tanzania**

### **3.2.1 Technological Challenges**

Agricultural development since independence has been constrained by a number of challenges. These include poor technology to adopt modern farming. Despite, of the span of time since independence, agriculture is still dominated by scale holder farmers. It is difficult for these farmers to adopt new farming technologies in order to improve and sustain farming practices. The nature of production of these farmers does not translate into surplus which can compete into the market. As a result a good number of the farmers do it in a routine way as a survival strategy rather than a means for life transformation. Although, the country is blessed with a considerable arable land for farming coupled with fresh water in in most parts of the country that can be utilized for irrigation, which in turn may invigorate farmers' productivity. Conversely, the arable land and fresh water is underutilized in most parts of the country. For example, due to technological challenges about 24% of 44 million hectares of the arable land potential for agriculture is harnessed (Mkonda and He, 2016).

Also, the existing irrigation infrastructure in Tanzania is still poor and inappropriate, causing the overall water use efficiency to be very low at an average of 15-20%, and the losses in the systems are enormous, amounting to 80 to 85% (Mwandosya, 2008). Thus, the performance of irrigation farming is low in which about 18 percent of the total irrigable land is under irrigation farming (Limbu and Mashindano, 2002). If adequately implemented, irrigation could form sustainable solution in agricultural development in Tanzania. Likewise, it could translate into poverty reduction among majority of Tanzanians whose livelihood depends on farming. This underscores the need for transformation into sustainable irrigation which will trigger more agricultural production.

### **3.2.2 Climate Change**

Agriculture in Tanzania is largely rainfed as a result of poor technology. Majority of the farmers rely on the annual rain cycles. This makes agriculture in the country largely uncertain depending on rain cycles experienced in the particular time period. For example, Mghase *et al.*, (2009) reported that, 74% of the rice in Tanzania is grown under rain-fed lowland and 20% is under rain-fed upland. Poverty among the farmers limit majority of the farmers to adopt alternative farming practices to sustain farming practices since the impact of climate change

are more pronounced among the poor due to their limited level of adaptation. Due to the dependency on nature, the changing in climate negatively affects agricultural development.

A coup of literature have revealed the negative impact of climate change in agricultural practices and production in Tanzania. For example, Kessy (2021) showed that increasing in incidences of droughts due to declining rainfall has frequently affected most of the poverty-stricken areas in many parts of the southern and northern highland areas, which had promising agricultural production. Climate change coupled with land degradation have triggered significant fluctuations in yields of the major food crops to include maize, rice, sorghum, millet, beans and cassava (Mkonda and He, 2016). These crops determine the nation's food security since they contribute to the national food basket. Due to climate change regions which experience semi-arid condition also experience persistent food shortage. These regions are Singida, Dodoma, Shinyanga and Mwanza (Mkonda and He, 2016). Likewise, evidences across different parts of the country have revealed that in Tanzania climate change impacts have negatively and progressively affected agricultural productivity (Kangalawe, 2017; Kangalawe *et al.*, 2017; Mafie, 2022). Besides affecting agricultural production climate change has seriously jeopardised human and triggered food security (Kessy, 2021).

Although climate change might have triggered some positive changes in some areas, in case of farming practices in Tanzania the impacts have been largely on the negative side since it has triggered impoverishment among the majority of the farmers along with food insecurity. Coupled with poverty which triggers the application poor farming technology, climate change episodes become much more pronounced in constraining farming practices in Tanzania. The possible explanation is that, climate change affects much the poor who rely on seasonal rain cycles. Improvement in farming practices in Tanzania implies adapting to climate change and vice versa.

### **3.2.3 Limited Capital**

Agriculture has been taken up by majority of the farmers as a means of subsistence or as a last resort after failing to get the opportunity to work in a non-agriculture sector elsewhere. Majority of the farmers have limited capital. Due to limited capital majority of farmers are not capable of venturing into commercial agriculture since it requires massive capital for investment (Lyatuu *et al.*, 2015). As a result since they have no alternative rather than continuing with their traditional

farming to sustain day to day living, majority remain featured within the vicious cycle of poverty. To offset their meagre capital the small holder farmers use to sell their labour to some few large scale commercial farmers.

Evidences show that over 60 percent of the farmers in Tanzania use hand hoes while only 12 percent use tractors (URT, 2013). This indicates that, subsistence farming dominates Tanzania's farming practices. Under this form the food is produced by the family and subsequently consumed by the family or community (Lameck, 2016). Thus, it is featured by persistent poverty and associated inability to purchase agricultural inputs. Capital accumulation under subsistence farming is hardly to be attained by the large group of smallholder farmers. Pauw & Thurlow (2011) showed that agricultural growth has been driven by larger-scale farmers who are less likely to be poor; and has been concentrated among crops grown in specific regions of the country. Furthermore, literature reveal that application of advanced farming equipments is also limited. For example, it was shown that the use of Four Weel Tractors (FWT) in the country has been fluctuation where while prior to political independence the use of FWT increased slightly, the period between 1985 to 2005 from 18,500 to 7,200 respectively (Mrema *et al.*, 2020). It is apparent from this evidence that agricultural mechanization in the country is still lagging behind.

#### **3.2.4 Policy Implementation Challenges**

As shown earlier in this paper, the government of Tanzania has adopted a number of policy frameworks to address agricultural development. Despite these initiatives, agricultural problems that would have been addresses by these policies remain in place.

Most of policies are not adequately implemented, instead the documents are just archived in shelves for storage purposes. This means introduction of other new reforms may not bring sustainable impact in agriculture if they are not adequately implemented. In view of the major agricultural challenges, the problem is not having in place new policy frameworks, rather implementation of the policies account to the nations agricultural challenges. For example, the National Agricultural Policy has priotised a number of agricultural issues. Nonetheless, the status of implementation is still lagging behind. The other potential challenges with most policy frameworks in Tanzania can be linked to low stakeholders' involvement.

Most of policies are centrally oriented with little involvement of the other parties such as the local communities and the private sector. As shown in some technical



reports (eg. URT, 2008; URT 2014) agricultural initiatives such as Policy is Agriculture, Life and Death Effort to improve agriculture, Arusha Declaration, Villagization Policy, Food is Life and Modern Agriculture did not result to the expected impact partly due to the little involvement of the local communities. Inadequate implementation of policies is reflected by the number of issues one of them being the dominance of smallholder farmers. This form of farming can hardly translate into economic revolution because the farmers produce something making them earning their daily living.

Importation of some cereal crops such as wheat from Europe and America also constitutes one among the challenges of agricultural performance in particular policy implementation. Despite the endowment of vast track of arable land suitable for various food and cash crops Tanzania imports tons of wheat which would otherwise being produced within the country. This exhibits a potential challenge in agriculture and overall food production in Tanzania. It is apparent from the reflection on policy framework that the existing policies have not offered sustainable solution on agricultural challenges in the country.

#### **4. Conclusions and Recommendations**

A number of initiatives have been adopted in Tanzania since independence to foster agricultural development. Mwalimu Nyerere devoted much through the provision of the road map towards agricultural development. Despite, its overall contribution to the livelihood of majority of Tanzanians a number of challenges impede agricultural development in Tanzania. Limited capital among the majority who are smallholder farmers, climate change, technological problems and policy implementation challenges constitute these challenges. This leads to the conclusion that more focus on agricultural development is prerequisite. Furthermore, the study has revealed that policy implementation challenges constitute to agricultural setback. This reinforces that policy implementation strategies are prerequisite to foster agricultural development. The study has also revealed underperformance of irrigation farming in the country. This undermines efforts towards agricultural improvement, food security and subsequently poverty reduction.

The study recommends to the government through the Ministry of Agriculture to facilitate technological improvement that will improve agricultural productivity and reduce farmers' dependence on the nature. Second, the government should dedicate much efforts on expanding irrigation farming including modernizing it to offer sustainable farming. Thirdly, the Ministry of Agriculture should create of

enabling environment including the provision of timely and easily accessible to subsidies among the smallholder farmers in Tanzania in order to improve and sustain farming practices. The paper has revealed that policy implementation is impeding agricultural development. This leads to the recommendation to the government through the Ministry of Agriculture to device mechanism for policy implementation to foster agricultural development.

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