Tanzania Development Bailout: A Focus on Improving Agricultural Production

Norman A.S. King
Teofilo Kisanji University,
Mbeya, Tanzania
adamsonnorman@gmail.com

Montanus Cyprian Milanzi
Mzumbe University

Abstract: The aim of this paper was to discuss measures that need to be employed to boost agricultural production in Tanzania. The objective of the study was to assess the perception of agronomist on what do they consider to be barriers for agricultural improvement in Tanzania, and to propose solutions for the ultimate sustainable agriculture in Tanzania. The methodology employed in the study was qualitative approach, where interview was the main data collection instrument used. The design of the study was the case study, where only participants on the regional workshop participated in the trainings were interviewed. The sample was drawn through purposive sampling, where only participants on the training were involved in the study. The total sample was 24 agronomists from seven regions of Iringa, Mbeya, Morogoro, Dodoma, Njombe, Dodoma and Pwani. Results of the study indicate that the leading barriers to the development of horticulture in Tanzania include insufficient market, ignorance of the farmers on the potentials of horticulture, weak government policies in relation to horticulture, incompetent agronomist as they lack practical knowledge, weak commitment of the local government councils, and inability of politicians in articulating potentials of horticulture. In addition, it was learnt that Agronomist have not done much to participate in educating the farmers on the best practices for improving agriculture. It is therefore recommended that, each council should have targets on how many farmers should enjoy best practices per year. In addition, they both agree that agronomist should be assessed by the number of farmers they visit per year and thus the impact caused by their efforts.

Keywords: horticulture, agriculture, farmers, the role of agronomist

1. INTRODUCTION

We all know that agriculture is a back borne of most African countries economy. However, we are yet to cognise the extent to which the land of African countries is utilised for the furtherance of the economy. Plans and strategies are laid down, are sang and rhythm are felt but there seem no one is dancing. Especially among those who engage in dramatising, playing flute, goblet, tumbler and so forth. The cognisance of any music and its heroes is on dancers. In African way of dancing, when the music is at heap, dancers also go fast with steps, jingles, shake of hands, legs and even heads. In policies such as of agriculture, a mere documentation stating where we want to go in broad statements is just a beginning of the journey. Setting plans, and strategies, which narrates when should we be middle economy countries, second world and or first world is good, yet the totality of these phases do not amount into dancing rather tuning the music. In policies, the dancing is implementation of the policies. We must talk of how many acres have been cultivated, who has done it and who does not want to do it and why, and equally taking necessary measures to those who deviate the agreed policies. The pertinence of agriculture in Tanzania is vital since contributes over half of the GDP, and employs about 80% of the Tanzania population (URT, 2001). Agriculture is an important sector for sustaining growth and reducing poverty in developing countries. Because the food and agricultural sector dominates most African economies in terms of contribution to GDP, employment and incomes, its growth and development are essential for the overall process of socioeconomic development in the region (Nkamleu et al. 2003).
In Tanzania, the cognition of the importance of agriculture started since the attainment of independence. We were oriented to agriculture. It is part of our tradition. In emphasizing on the imperativeness of agriculture the government came with the slogan ‘Politics is agriculture’ which is known as Iringa declaration, which sought to ensure that it is the extent to which agriculture is practiced that dictates the dynamics of politics. This includes the stance of politician, the ability to say no or yes when international concerns appeal for backups. It refers to the ability to realize what is beneficial to our people and what it is not. The founder of the Slogan, the ruling part TANU speared through the jubilant mind of Mwalimu Nyerere, meant that the economy of our countries would dictate the politics of the country.

The stronger the economy, stable is the politics. Much as Tanzania had no high technology, the brilliancy of the economy was dependent on our traditional activity-Agriculture. We sailed well. Early 1970s and 1980s, each family was required to have at least one acre of cereal/crops, and one acre of the believed business crops- pyrethrum, Cocoa, Coffee, Tea, Cotton, sisal, and Korosho among many. It was mandatory. Each of us participated in the agricultural production. Some of us were too young in early 1970s, hence were doing the harvesting of any of the crops. We learnt at tender age that agriculture is our strength. Where are we now? If we teach our children to cultivate, the international laws claim to be child labour. Some non-governmental organisations being lead by our people would go front advocating child labour. We concur with the views of Norman(2012), when asserts that the strength of the developed nations is in technology, hence teaching the children at the age of four to seven on how to operationalizing computers is what we expect. He adds that the strength of African countries is in agriculture, we expect such orientation to be availed to children at tender age. They should grow knowing that cultivation of farms is not punishment but their daily bread.

Up to 1990s, nothing seemed wrong as far as agriculture is concerned. We attained a good pace of acreage and more people participated in agriculture. The detainment of people into agriculture was backed by literally three reasons: 1) few secondary schools at advanced level, which meant that few people would join higher education, hence most of them would be at localities where they attained primary education. 2) Strong policy implementation at urban centres, such as no jobs no rooter. The policy, which meant you must prove working, otherwise severe measures would be taken against you. 3) Although in primary education agriculture was not taught as a subject, but we practiced agriculture, hence we had something to do after completion of standard seven.

In recent decades, especially late 1990s, schools do no more practice agriculture. In 2006, we came up with secondary schools per ward, which meant that an increase of about 3000 schools would merge. It was successful. The government went on establishing more higher education institution to tape the grandaunts at form six level, hence universities increased from five to about 29 in year 2012 (URT, 2013). This increase was to some extent conversion of technical schools to universities, which means changed the award given to grandaunts but did little to change the number of enrollees. Equally, to ensure that most people join higher education, the government had to establish an entity that could render loan to students irrespective of their ability or inability-hence Loan Board (URT, 2007). The step was hero. However, the challenge remained that our economy depend on agriculture but agriculture is not mandatory in theory and in practice. Therefore, educated people would not love agriculture. The long period of education to the attainment of their degrees, have not been able to learn or practice agriculture. At the age of 23/24, the age which most people attain first degrees in Tanzania and most African countries, none had ever learnt what is hoe, and how can it be used. Today, people who were born early 1990s are the majority in our society. If the reverse is not applied, 20 years to come we would be having people of age one to 43 who do not know what it means to cultivate- it is wrong, we must change the wheel. In order to come up with what should be done, we need to find the leading measures through the people who are specialist in agriculture. Hence, this study entails to find out the perception of the agronomist (people who are specialist in agriculture) in relation to four questions: 1) what do they perceive to be bottleneck to agricultural improvement in Tanzania? 2) What we should do to attain agricultural development in Tanzania?

2. LITERATURE REVIEW

Agriculture is a corner stone of development of African countries. In this regard, several authors have suggested different measures related to the improvement of agriculture. Schnepf (2004) and
Ommani (2011) assert that agriculture requires energy as an important input to production. It uses energy directly as fuel or electricity to operate machinery and equipment, to heat or cool buildings, and for lighting on the farm, while it indirectly uses the fertilizers and chemicals produced off the farm. Ommani adds that with the start of green revolution, the usage of external inputs in agriculture is likely to increase (Ommani, 2010). Researchers the world over seem to have different concerns on what it takes to improve agricultural production. However, those who advocate for the use of more energy for boosting agricultural production include (Asakereh et al. 2010; Bonner et al. 2011; Farahmandpur, 2008; Gulkis and Clarke, 2010).

What it takes to improve agriculture is in diverse. It includes the knowledge of the farmers in relation to the crop is dealing with. It includes the policies of the country and the extent to which it implements. Drollette (2009) sees a quite important angle, when she associates risk pegged to ranchers and farmers in relation to uncertainties such as drought, fire, frost, market, pests, and inconsistency of price. Drollette defines risk in relation to difficulties ranchers and farmers face as “the possibility of adverse outcomes due to uncertainty and imperfect knowledge in decision making”. Several other measures are employed in different countries. The measures include provision subsidies to farmers. Hosseini-Yekani (2011) found that a provision subsidy is valuable for improving exports of agricultural products in Iran. Ahmed (2013) worked to find the relationship between agricultural income, land size and food insecurity in Pakistan. Hameed (2013) noted the effectiveness of the technology in the production quality of wheat, which can meet export standards and the demands within and outside the country. He found that presently, there is a wide yield gap in wheat that needs to be bridged.

Generally, we do have several international measures and localised measures employed by each country. In Tanzania, for example, several efforts have been put in place to revamp agriculture. In 1999, the government formed the Agricultural Sector Performance and Strategies for Sustainable Growth (URT, 2000). Special Advisory Committee on Agricultural Development, which was formed in 1999: task force of Corporate Report formed in 2000; and recently the introduction of Kilimo kwanza has its value in improving agricultural production (URT, 2001). The document confesses as follows, “Agriculture plays an important role in poverty reduction, particularly in poorer countries such as Tanzania where the majority of people depends on agriculture for their livelihood. Growth in agricultural value added had the largest impact on poverty reduction in Asia in the 1970s and 1980s. However, left alone, agriculture could also become a poverty trap. That is what is happening in many poorer countries in sub-Saharan Africa where the agriculture sector has been left behind. There are no adequate investments in rural infrastructure, agricultural technology, equipment or basic inputs. As a result, agricultural productivity either remains stagnant or increases only at a very slow rate, if at all”.

The gape we notice in all referred studies is the opinion of those believed guru in agriculture –the agronomist on what they perceive to be barriers for agricultural enhancement in Africa, and Tanzania specifically. Hence, this study.

3. MATERIALS AND METHODS

This study was conducted in Morogoro region where the agronomist from 24 districts met for the training. The agronomists were drawn from eight regions namely Mbeya, Iringa, Njombe, Rukwa, Ruvuma, Morogoro, Pwani, and Dodoma. The approach for the study was qualitative. Interviews and open questionnaires were instruments for data collection. It employed a case study design. The sample was drawn through purposive sampling as head of horticulture from the named 24 districts was sampled for interview and saved with an open questionnaire. The analysis of the findings was done through description.

4. FINDINGS

The totality of responses has indicated several factors that are perceived to hinder the development of horticulture in Tanzania. The leading factors however, are insufficient market for the horticultural products-flowers, vegetables and fruits. The second factor, which received second weight in ranking, was ignorance of the farmers in relation to the importance of horticulture in bringing forth development. Unfavourable horticultural conditions such as drought, poor soil, and absence of water were ranked fourth. It was followed by weak technology used in production of horticulture. High technology required in production of the horticultural products,
especially on the management of diseases and quality was ranked sixth. Number seven and eight factor were lack of packaging knowledge, and absence of knowledge related to proper farming. A weak government policy was ranked tenth. Other factors include irresponsiveness of local government in emphasising on the horticultural production, and also incompetent horticultural officers. In addition, the factors that received equal weight but the least in terms of weight are farmers do not perceive horticultural products as business oriented, lack of capital to establish horticultural agriculture, absence of implements, and weak or negative perceptions of political leaders regarding horticulture.

Table 1. The perception of agronomist on barriers to horticultural development

<table>
<thead>
<tr>
<th>S/NO</th>
<th>Item description</th>
<th>Frequency</th>
<th>% for</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Insufficiency of market</td>
<td>18</td>
<td>75.0</td>
</tr>
<tr>
<td>2.</td>
<td>Ignorance among farmers on the prudence of horticulture</td>
<td>12</td>
<td>50.0</td>
</tr>
<tr>
<td>3.</td>
<td>Unfavourable horticultural conditions/drought/poor soil</td>
<td>11</td>
<td>45.8</td>
</tr>
<tr>
<td>4.</td>
<td>High cost related to management of quality and deceases</td>
<td>8</td>
<td>33.3</td>
</tr>
<tr>
<td>5.</td>
<td>Weak technology related to production of horticulture</td>
<td>8</td>
<td>33.3</td>
</tr>
<tr>
<td>6.</td>
<td>Lack of packaging knowledge</td>
<td>6</td>
<td>25.0</td>
</tr>
<tr>
<td>7.</td>
<td>Absence of knowledge related to proper farming</td>
<td>6</td>
<td>25.0</td>
</tr>
<tr>
<td>8.</td>
<td>Weak government policies on formalisation of horticulture</td>
<td>5</td>
<td>20.8</td>
</tr>
<tr>
<td>9.</td>
<td>Absence of research regarding the prudence of horticulture</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td>10.</td>
<td>Absence of competent horticultural officers</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>11.</td>
<td>Irresponsiveness of local government on horticulture</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>12.</td>
<td>Farmers do not perceive horticultural products as business oriented</td>
<td>1</td>
<td>04.1</td>
</tr>
<tr>
<td>13.</td>
<td>Lack of capital</td>
<td>1</td>
<td>0.41</td>
</tr>
<tr>
<td>14.</td>
<td>Absence of implements</td>
<td>1</td>
<td>0.41</td>
</tr>
<tr>
<td>15.</td>
<td>Weak or negative perception of political leaders on the prudence of horticulture</td>
<td>1</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Source: Fieldwork, 2013. Findings indicate that most Agronomist perceive that insufficiency market, ignorance of farmers, unfavourable agricultural conditions, and weak technology in relation to horticulture are the leading barriers to development of agriculture in Tanzania.

5. DISCUSSION OF THE FINDINGS

Agriculture indeed is a back borne of most African countries economy including Tanzania. The findings have revealed some critical concerns regarding the barriers to the development of agriculture in Tanzania.

5.1 Insufficient Markets

The leading criterion is insufficient of market for the product. In our country, it has been naturally that food and crops such as sisal, cotton, coffee, pyrethrum, cocoa, and Cashew nuts were marketed and made mandatory to grow since independence. No time had there been emphasis for the horticultural products. Hence, even those who dared to grow, for example, tomatoes would face challenge of market access. In most case, these tomatoes get rotten, especially in Iringa and Morogoro the two regions, which embark heavily on tomatoes. We notice huge amount of tomatoes being damped on the roads, we equally notice apples in Makete, bananas in Rungwe, Kyela and some parts of Kilimanjaro. Certainly, respondent had these concerns in their minds and much more, which drove them to rank lack of markets for the products to be the leading hindering factor for the development of horticultural products. The respondents seem to relate the rampart tomatoes, bananas, mangoes, and apples manifested in various places of Tanzania due to lack of market. In this regard, they seem to indicate that inability to sell horticultural products is due to lack of market. Indeed yes, in Tanzania we experience bundles of the named crops being left off as if no one is need for them. The influence of the market in production is pertinent. However, marketing ability depends on the available market for the same. One may have good marketing strategies, and the same may face difficulties of marketability- ability to sale, due to the inadequacy of demand. Insufficiency of market was seconded by 75% of respondents.

5.2 Ignorance Amongst Farmers on the Prudence of Horticulture

Farmers in Tanzania are not used to horticulture as crops for business. The orientation of these agricultural products is quiet new. Hence, while the government and the Tanzania Horticulture
Association (TAHA) are preaching on the importance of the products, yet it is a new game to old players. It is believed that with time, through the utilisation of Local government councils, horticulture will be one of the strongest economic ventures in Tanzania. It is important that each local government council establish learning plots for enabling farmers to face realities on what it is, and for what benefits. This factor was seconded by 50% of respondents.

5.3 Unfavourable Agricultural Condition
Respondents seem to associate drought in some few places in Tanzania on one hand and the few irrigation schemes present on the other. Generally, Tanzania experience good rainfall per annum, however, the strength of horticulture is irrigation. This can be associated also with ignorance in the utilisation of rivers. Most farmers do not utilise water available around them, even when such water is available for use. This could be associated much with ignorance. Generically, most of our places are fertile and some with sufficient rains but farmers are not used for irrigation unless education is provided on the same. This factor was seconded by 45.8% of the respondents.

5.4 Ignorance of Farmers on the Importance of Horticulture
The ignorance of farmers on horticulture is traced before, during and early independence. Fruits were introduced by colonies, specifically the Britain and German. Nevertheless, no or little emphasis was made to link with business. After independence, the emphasis was on peasantry farming, and doing some government and administrative issues such as reforming the inherited colonialism government structure by replacing with the one, which would suit the independent nation. Fruits, flowers, and vegetables were not given emphasis that linked with business. Henceforth reasons for ignorance are obvious. This factor was seconded by 33.3% of the total respondents.

5.5 High Cost Related to Management of Quality and Diseases
Horticultural products are quality sensitive, since its market is normally international in nature. Hence, quality must not be on compromise. Hence, pests must be controlled for optimising quality. European market for example, has a tendency of sending its professional agronomist to assess the quality of the products in prospective supply areas. Certainly, the concerns of the respondents had much to do with financing the farmers. This could be done easily if the chain is developed through private sector and the local government that ensures provision of most implements to farmers, which the same would deduct from the farmers after sales. Equally, local government agronomist should indulge into displaying their values and competencies through what farmers achieve. This criterion was seconded by 33.3% of the respondents.

5.6 Lack of Farming and Packaging Knowledge
In general, it is appreciated that farming need special knowledge just like any other field. The two bottlenecks are related in the sense that lack of farming knowledge includes packaging knowledge. It was difficult to combine the two factors, since the respondents treated the factors differently. The perception of the respondents seems to associate the marketability of products with packaging. In addition, the poor knowledge of farming seems to be a barrier also. Knowledge need to be rendered to the farmers on the importance of the same. Currently, the International Institute of Training, Research and Consultancy (IITRC), is providing knowledge to various entrepreneurs on the importance of conforming to international business, which include packaging and quality control. It is imperative that such trainings should be rendered to wide spectrum in the entire country for the transformation of the economy. The two combined factors received 25% of the respondents.

5.7 Weak Government Policies in Relation to Formalisation of Horticulture
The respondents indicated that the government has not placed prudent policies that are worthy to articulate horticulture. Policies seem to be silent on the importance of this business. Hence, it is appealed to the government to place policies that indicates that horticulture is priority rather than what is now, where the strength of horticulture seems to depend upon private sector. It should be mandatory to local government to participate in the farming that generates income to the people. Weak policies certainly suggest for emerging of another barrier, which is lack of research on the importance of horticulture. It can be added that policies are the determinant of the type of
agronomist. Hence, another factor that is perceived to be bottleneck is weak agronomist. This factor attained 20% of the respondents.

5.8 Absence of Research on the Prudence of Horticulture

The respondents indicated that most academicians have indulged in researches that are not problem solving. They further, indicated that there is little or none at all regarding the vitality of horticulture. The results of these researches should reiterate the people on the advantages and disadvantages of this pertinent issue. This certainly requires the government and specifically the ministry for higher education to set aside budgets that are worthy for the researches. As of now, we do not have single funding that entails to support problems solving through researches. Most problems are dealt with pending the appropriateness of the thinking of political leaders. It is crucial that measures taken to solve problems are driven by thorough researches accrued through holistic thinking.

5.9 Weak Agronomist

Officers working in the field of agriculture are perceived to be weak, as they cannot demonstrate competence expected to the farmers. This was proven during the training in Morogoro where this study was conducted. It was observed that most Agronomists could not know what was required for the enhancement of horticulture. They indicated that most of the practices they enjoyed in the universities were not current. Hence, refresher courses are in need to equip the agricultural officers with current and relevant knowledge that can suit the farmers. Jobs in councils should be gauged in accordance to what the officials yield in the villages. This factor attained 12.5% of the respondents.

5.10 Irresponsiveness of Local Government on Horticulture

The development of Tanzania is dependent on the competence vested in the local government. For obvious reasons, competence of any system is dependent on the components forming it. The key components are local government officials, who articulate, transcribe the policies, set up plans, develop strategies that are implementable, set up budgets commensurate to the plans, and solicit funds in accordance with the plans. Hence, the main challenge facing the government is to develop an employment system that is competence based. This factor attained 12.5% of the respondents.

5.11 Weak Understanding of the Politician

Some politicians are perceived to be weak in understanding the pertinence of horticulture. These are policy makers; hence, their ability to transcribing various development ventures such as agriculture is imperative. Certainly, even the absence of policies related to this industry justifies the weaknesses of the politicians. Equally, lack of capital and implements related to horticulture are termed to be other obstacles to the performance of horticulture. However, lack of knowledge on the importance of agriculture can influence negatively the availability of capital and implements. In addition, lack of capital, weak understanding of politician and absence of implements each of these factors received a percentage of respondents (1%).

6. CONCLUSION

The development of Tanzania economy is dependent on how best we utilise the arable land available in our country. For obvious reasons, not all countries are rich in arable land, hence such countries including the entire European union, can depend upon the efficient utilisation of land of countries such as Tanzania. The weakness noted in the study indicates ignorance amongst farmers, political leaders and officials working in the agricultural sector. It indicates the prudence of local government authorities in formulating, planning, budgeting and executing agricultural oriented business. We appeal to the respective ministries, specifically, the ministry of local government and regional administration to make competence based appointments and promotion that translate the abilities of the appointee in providing developmental changes. It is argued that much as agriculture employs nearly 80% of the Tanzanian people, same weight be given in enlightening pupils and students in agricultural practical courses. This should be done through ensuring all courses or specialisations have an attribute of basic agricultural practice. Once this is
done, there would be abundant creation of sustainable jobs, employments, production and finally sustainable development.

**ACKNOWLEDGEMENT**

We would like to appreciate the contribution of Tanzania horticulture Association for supporting the study. In first place, it conducted training to Agronomist of six regions of Tanzania, and equally invited some dignitaries such as District Commissioners for Mbeya, Rungwe, Makete and Kilolo. The seminar was conducted from 19 to 21, November 2013. Each person who filled the questionnaire has in one way or the other helped in making this study possible.

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