

Full Length Research

Facilitative Role of Government Budgetary Execution on Maize Commercialisation in Mbeya and Songwe regions, Tanzania

David Malima Biswalo¹, Deus Dominic Ngaruko² and Timothy Martin Lyanga³

¹Corresponding author, Cereals and Other Produce Regulatory Authority, Box 9192, Dar es Salaam, Tanzania. Email: dbiswalo@yahoo.com. +255755630407

²Department of Economics, The Open University of Tanzania, Box 23409, Dar es Salaam, Tanzania. Email: ngarukoddp@gmail.com.+255764378575

³Department of Economics, The Open University of Tanzania, Box 23409, Dar es Salaam, Tanzania. Email: lyangatimothy@yahoo.com. +255754311041

Accepted 31 August 2023

Transformation of agriculture to a higher commercialisation level is a key objective of the government of Tanzania. However, official reports show that this objective to date is still elusive in spite implementation of agricultural development initiatives through government budgetary execution (GBE). Agricultural growth and productivity is generally still very low. Thus, this paper assessed how GBE facilitated maize commercialisation in Mbeya and Songwe regions whose maize yields are high compared to the national annual average maize yields. Rostow's theoretical model of economic development stages guided the study. The descriptive survey design was employed whereby a cross-sectional survey was used to collect primary data from 180 respondents in the study area. The mean and standard deviation were used to analyze the data via SPSS software. The main findings indicated that GBE facilitated increased scale of maize production, use of improved maize seeds, mechanization of maize farming, use of financial system and market participation of maize. The study recommended that the government through GBE should strengthen implementation of programmes that aim at enhancing production and productivity, access to mechanization equipment and agricultural credit as well as investing in roads, storage and market infrastructure. All these features are important requisites towards a reaching a higher agricultural commercialisation level.

Keywords: Agricultural Commercialisation, Government Budgetary Execution, Food Crops, Maize.

Citation: Biswalo, D.M., Ngaruko, D.D., Lyanga, T.M. (2023). Facilitative Role of Government Budgetary Execution on Maize Commercialisation in Mbeya and Songwe regions, Tanzania. *Inter. J. Econ. Bus. Manage.* Vol. 11(4), pp. 94- 102, September 2023

INTRODUCTION AND BACKGROUND

Transforming agriculture from predominantly subsistence to commercial agriculture is still amongst the main objectives in the Government of the United Republic of Tanzania (URT, 2017). This objective as contained in the Agricultural Sector Development Programme (ASDP-II) document aims amongst others to raise annual agriculture sector growth and maize yields to 6% and 4 tonnes/ha respectively by 2025. The government effort is driven by the fact that the country is an agrarian based economy that employs around 65% of the population as indicated in Tanzania's National Sample Census on Agriculture for 2019/2020 (NBS, 2021). Hence, the agricultural sector is a key productive sector owing to its

potential to bring broad based economic growth and poverty reduction. The World Bank reiterates this fact by showing how important agricultural transformation is for Tanzania in increasing agricultural productivity and breaking the intergenerational poverty cycle (WB, 2021).

However, performance of agriculture in Tanzania as a whole is still not encouraging as the sector is still characterized by low growth rates and low productivity amongst other performance indicators as shown in Table 1. The low agriculture sector performance also affects the rate and level of agricultural commercialisation (ACOM) in Tanzania (URT, 2017). Scholars Zhou et al. (2013) defined ACOM as an agricultural transformation process in which farmers shift from mainly consumption oriented subsistence production towards market and profit oriented production systems. Hence, several factors have contributed to the low performance in agriculture and subsequently low ACOM but of interest is government budgetary execution (GBE). There are a number of definitions put forward regarding GBE. A good reference is from the United States Department of Commerce (2018) that defined GBE as the process by which the financial resources made available to an agency are directed and controlled towards achieving the purposes and objects for which budgets were approved.

Table 1. Performance of selected agriculture indicators for Tanzania

Indicator	Target	Actual performance
Average annual agriculture growth (%)	6.0	3.4
Use of improved seeds (%)	50	32.5
Fertilizer consumption (kg/ha)	50	19
Use of tractors/draught animals (%)	50	33.3
Commercial banks' domestic lending to agriculture (%)	20	8.5
Area under irrigation (ha)	1,000,000	289,386

Source: (NBS, 2021; MOFP, 2021; URT, 2017)

The GBE process in Tanzania is executed through the medium term expenditure framework (MTEF). The MTEF is a resource management tool which is a prioritized three year integrated performance budget employed by government institutions and agencies to implement strategic plans, programmes and projects (URT, 2005).

Against that backdrop, it has been argued that agriculture in Tanzania and Africa as a whole is being underfinanced via the GBE process leading to poor performance on agricultural growth and productivity. Not only that but also there are discrepancies between budgets passed by parliaments and the ones executed to implement agricultural development initiatives (MALF, 2017; Mogue, 2012). The mismatch between budgets passed by parliaments and the ones executed is a serious problem hindering attainment of agricultural sector development goals and objectives such as attaining higher ACOM levels. In addition, the issue of low financing to agriculture had been noted by heads of African states who came up with the Maputo Declaration of 2003 and which was reiterated by the Malabo Declaration of 2014. The declarations require governments to allocate 10% of their national budget to the agricultural sector.

Reverting to Tanzania, production and productivity of some food crops, especially maize are well above national average contrary to the general poor performance of agricultural productivity associated with amongst other factors low financing through GBE process. High crop productivity or yields are a prerequisite for high ACOM. Hence, as McCaffery and Mutty (1999) asserted that budget execution is managing the budget plan for policy implementation, and since ACOM is a key policy objective in Tanzania, this study aims to investigate how GBE facilitated maize commercialisation (MCOM) in Mbeya and Songwe regions in Tanzania, which have high maize crop yields compared to other regions in Tanzania. In addition, to identify features of maize commercialisation that requires more attention in GBE. The two regions have been chosen as case studies because they possess key features important for the study on ACOM is will be shown in the research methodology section.

LITERATURE REVIEW

Literature regarding how GBE affects and or facilitates ACOM is very scanty. Nonetheless, there is a body of wealth in studies related to budgeting, budget execution, public expenditure and agricultural commercialisation. Hence, the review will first illustrate the importance attached to GBE in attaining national and sectoral development objectives. Second showing how findings and recommendations in ACOM studies have an implication on GBE.

To begin with, a pertinent theory relevant for this study is Rostow's theoretical model of economic development

stages. By applying the said theory, Wharton (1963), Todaro (1989), Pingali and Rosegrant (1995) explained agricultural commercialisation as an agricultural transformation process involving three stages from a low productivity traditional agriculture to a high productivity commercial sector. The first stage is the low-productivity, purely subsistence peasant farming. It is characterized by use of mainly non-traded and household generated inputs with the main production objective being food self-sufficiency. The second stage is the mixed family agriculture or semi-subsistence, where part of the crop is grown for self-consumption and part of it is sold. The third stage is the modern farm exclusively engaged in high productivity and specialized agriculture geared to the commercial market. This stage according to Todaro (1989), and Pingali and Rosegrant (1995) can qualify as commercial agriculture or a fully commercialised agricultural system where inputs are mainly bought and profit maximization is the main objective.

Furthermore, documented characteristics of commercial farmers include owning medium to large size of operations, high use of inputs, focusing on few products and specialized, mechanization and intensification of farming, high financial capital and access to credit, employ modern agricultural and management skills, practice high input and output market participation. Worth noting is that the Tanzania National Agriculture Policy of 2013 (NAP 2013) clearly states that efficient utilization of farm machinery, implements, equipment and agro-processing machines will be promoted. Hence, deriving from these characteristic features, the variables chosen under the current study in the local setting include scale of production, use of improved seeds, mechanization of agriculture, use of financial system, and market participation.

In a study analyzing effect of recurrent expenditure on the growth of the agricultural sector in Tanzania, Sikwese et al. (2022) showed that the recurrent expenditure in agriculture sector have a positive long run relationship effect to the respective sector. They showed that a unit increase in recurrent expenditure increases growth rate of the sector. The authors amongst other factors recommended the government of Tanzania to reinforce financing of the agriculture sector to accelerate growth of the sector. In a study in Nigeria to investigate the link between agricultural budget allocation and economic growth, Oyinbo et al. (2013) showed that there is a positive relationship. They recommend a significant increase in budgetary allocations to agriculture in order to ensure that the agricultural sector plays a pivotal role in the national transformation of Nigeria.

On the other hand, Sechoutdi and Chabossou (2020) were examining the nexus between government agriculture expenditure and agricultural production in Sub Saharan Africa (SSA) using panel data from 33 SSA countries from 2002 to 2018. The authors showed that government agricultural expenditure has a positive and significant relationship with agricultural production both in the short run as well as in the long run. The study recommended that the government should adhere to the Maputo Declaration of 2003 by allocating at least 10% of their budgets to the agriculture sector for increasing production, productivity and contribution to economic growth. Therefore, it is seen from these few studies that GBE is crucial in facilitating various aspects of agricultural transformation including ACOM.

Regarding ACOM, several scholars have shown that effective GBE is essential for ensuring planned development objectives and targets are achieved. In order to ensure the efficient functioning of agricultural markets, Pradhan et al. (2010) recommends governments to consider several investments and interventions in hard infrastructure and soft infrastructure. Hard infrastructure includes roads, collection centers and cold storage; particularly for high value crops. The soft infrastructure includes grades and standards, market information, extension services and contract farming. Several other scholars have recommended on more or less the same. They include Agwu, Anyanwu and Mendie (2012), Mbitsemunda and Karangwa (2017), Hagos and Geta (2016), Morton and Martey (2021), Tafesse et al. (2023), Cazzuffi et al. (2020), and Raj and Hall (2020).

Conversely, Mutabazi, Wiggins, and Mdoe (2013) in a study investigating commercialisation of African smallholder farming; the case of smallholder farmers in Central Tanzania, showed that location in areas with good road network or better road access ensures efficient market linkages and high speed exchange logistics. They thus assert that those market features promote commercialisation process and government should consider investing on them. Also, accessibility to credits by the farmers influences farmer's orientation towards commercialisation. Therefore, from these ACOM studies, it is evident that GBE as a very important factor in ACOM is implied because any public investment is through GBE via the MTEF as is the case in Tanzania.

To sum up with regards to the literature review, the review has guided choice of MCOM variables that are used in the study based on the agricultural transformation stages put forward by Wharton (1963), Todaro (1989), Pingali and Rosegrant (1995). The review has also demonstrated the importance attached to GBE in facilitating ACOM and specifically MCOM as is for this case. Lastly, the review has also shown how GBE is implied in the ACOM studies as an important factor to be considered in attainment agricultural transformation goals, objectives and targets.

METHODOLOGY OF THE STUDY

Research Approach and Design

The researchers used the quantitative research approach or paradigm. The research approach was selected because it allows a broader study, involving more subjects and enabling more generalization of results. The descriptive survey design was employed through which cross-sectional survey was conducted in the study area. According to Kothari (2011), the main characteristic of this design is that the researcher has no control of the variables and can only report what has happened or what is happening. Respondents' views were collected on how GBE facilitated MCOM in the study area.

Data Type and Sources

This study is based on primary and secondary data. The primary data was collected by a survey which covered two of the Southern Highland regions in Tanzania, namely Mbeya and Songwe region. The two regions comprise a total of eleven local government authorities (LGAs) out of which 10 LGAs were covered. Six LGAs were from Mbeya region and four were from Songwe region. Noteworthy, purposive sampling method was employed to select the two regions as well as the sampling frame. Specifically, the two regions were selected because are amongst the big six maize producing regions that contribute highly to the national granary of food. Production of maize was used as a criteria for choosing the two regions because the is a major staple food crop as well as cash crop grown in Tanzania and the chosen areas; and, it has enormous potentials for commercialization owing to its demand in the domestic and foreign markets. Even more significant, from 2010 to 2019 productivity in maize production in Mbeya and Songwe regions were way above the national average: they were 2.22 tons/ha and 2.6 tons/ha, respectively, as compared to the national average which was 1.53 tons/ha. These yields were computed from the Ministry of Agriculture Basic Data Booklet on Crops Sub Sector 2018/2019 for Tanzania Mainland. Also, noteworthy the two regions are well connected to the national road and railway network system and are within the Southern Agricultural Growth Corridor of Tanzania (SAGCOT).The SAGCOT is a public-private partnership that aims to further develop the Tanzania agricultural sector through agribusiness investments in the country's southern corridor.

Due to the nature of the study, purposive sampling was employed to collect primary data from 180 respondents from a sample population of 350 government officials employed in local authority and ward level; whom were responsible for overseeing and implementing approved agricultural plans and budgets in their localities in Mbeya and Songwe regions. The variables under investigation require respondents to possess basic knowledge, expertise and experience regarding overseeing implementation of government budget in the agriculture sector. Specifically, the sample covered District Agriculture, Irrigation and Cooperative Officers (DAICOs) and agricultural extension officers from six Local Government Authorities (LGAs) in Mbeya region and four LGAs in Songwe region. At LGA level, guidance of DAICO officer was purposely used to selected staff residing at DAICO office and those residing at ward level who were deemed informed or were knowledgeable about the key issues of interest in government budget implementation in the regions and Tanzania in general

Data processing and analysis methods

The five point scale and rating scoring system was used to collect, verify and code data from 1 strongly disagree to 5 strongly agree. In order to obtain continuous data for quantitative analysis, the scale for each variable was first converted into scores in order to get total scale scores. Maximum and minimum values or scale scores were computed for each of the 180 respondents with respect to the number of items in a scale. Then the average scale scores were computed from the total scale scores to obtain continuous data for quantitative analysis. This data was subjected to descriptive statistical analysis to calculate the mean, median, mode, standard deviation, and skewness.

The value of the mean for each variable was used to measure the strength of the variable whether it is favourable i.e. supports the propositions in the scales or if it is unfavourable i.e. does not support the propositions in the scale. They were measured by interpreting means (M) by Weak (Wk) and Strong (St) using the Total Scale Scores whereby If $M \leq \text{Mean Score} = \text{Wk}$; $>\text{Mean Score} = \text{St}$. Table 2 below illustrates how the measurement was done.

Table 2: Data processing matrix

Variables	Items	Measurement	Interpretation of means (M) by Weak (Wk) and Strong (St)
Maize commercialisation	14	Scale 14 – 70	If M ≤ 34 Wk; > 34 St
Scale of production	3	Scale 3 – 15	If M ≤ 7 Wk; > 7 St
Use of improved seeds	2	Scale 2 – 10	If M ≤ 4 Wk; > 4 St
Mechanization of agriculture	2	Scale 2 – 10	If M ≤ 4 Wk; > 4 St
Use of financial system	3	Scale 3 – 15	If M ≤ 7 Wk; > 7 St
Market participation	4	Scale 4 – 20	If M ≤ 9 Wk; > 9 St

Source: Researchers' computation

RESULTS

The means for all the maize commercialisation variables as shown in Table 3 on descriptive statistics are strong i.e. they are greater than mean scores. This thus indicates a strong inclination towards agreement that GBE has facilitated scale of production, use of improved seeds, mechanization of agriculture, use of financial systems and market participation. The means thus show GBE has had a positive impact on maize commercialisation in the study area.

Table 3: Descriptive statistics on maize commercialisation variables

Statistics	Scale of production	Use of improved seeds	Mechanization of agriculture	Use of financial system	Market participation
Mean	8.7389	5.2944	6.5389	9.4167	11.8222
Median	8.0000	5.0000	6.0000	9.0000	12.0000
Mode	6.00	4.00	8.00	9.00	8.00
Std. Deviation	2.92048	1.99356	2.04520	2.62748	3.68927
Skewness	.444	.357	.153	.260	.033
Std. Error of Skewness	.181	.181	.181	.181	.181
Minimum	3.00	2.00	2.00	4.00	4.00
Maximum	15.00	10.00	10.00	15.00	20.00
(N = 180)					

Source: Researchers' computation

Conversely, the said means have a positive skewness meaning that the scores are clustered at low values and the standard deviation values are spread out over a large range of values not close to the mean. These results show that the opinion or views of the respondents were highly varied regarding the issues under investigation.

Table 4 further expounds on Table 3 by showing views from respondents regarding how GBE has facilitated MCOM in their localities. Several issues were investigated concerning the MCOM variables. Table 4 covers three out of five MCOM variables that include scale of production, use of improved seeds, and mechanization of agriculture. The mean scores from all the issues investigated were strong as indicated, which means GBE facilitated MCOM.

Table 4: Respondents' views on scale of production, use of improved seeds and mechanization of agriculture

S/N	Maize commercialisation variable	Issues investigated	Interpretation by Means	Strength of the variable
-----	----------------------------------	---------------------	-------------------------	--------------------------

Table 4: continuation

1.	Scale of production	i. GBE has in the past three years facilitated increase in number of medium to large scale farms. i. GBE has in the past three years facilitated large increase in volume of maize produced. i. GBE has in the past three years facilitated large increase in maize yields.	If $M \leq 7$ Wk; >7 St M = 8.7	Strong
2.	Use of improved seeds	i. GBE has in the past three years facilitated increase in use of high yielding varieties (HYV) of maize. i. GBE has in the past three years facilitated adequate supply of high yielding varieties of maize.	If $M \leq 4.0$ Wk; > 4.0 St M = 5.3	Strong
3.	Mechanization of agriculture	i. GBE has in the past three years facilitated increase in supply of agriculture mechanization equipment i. GBE has in the past three years facilitated increase in use of mechanization in maize farming.	If $M \leq 5.0$ Wk; > 5.0 St M = 6.5	Strong

Source: Researchers' computation

If the means from Table 4 are converted to percentage of maximum scores, scale of production is 58.3%, use of improved seeds is 52.9%, and mechanization of agriculture is 65.4% respectively.

Table 5: Respondents' views on use of financial system and market participation

S/N	Maize commercialisation variable	Issues investigated	Interpretation by Means	Strength of the variable
1.	Use of financial system	i. GBE has in the past three years facilitated increase in number of financial institutions providing agricultural credit. i. GBE has in the past three years facilitated increase in value of credit to agribusiness. i. GBE has in the past three years facilitated increase in number of maize farmers accessing credit.	If $M \leq 7.0$ Wk; > 7.0 St M = 9.4	Strong
2.	Market participation	i. GBE has in the past three years facilitated increase in number of agricultural inputs businesses. i. GBE has in the past three years facilitated increase in number of maize farmers purchasing agricultural inputs. i. GBE has in the past three years facilitated increase in number of maize farmers selling produce to the market. i. GBE has in the past three years facilitated large increase in volume of maize sold in the market.	If $M \leq 9.0$ Wk; >9.0 St M = 11.8	Strong

Source: Researchers' computation

Table 5 covers the remaining MCOM variables that include use of financial systems and market participation. Here again the variables were strong meaning that GBE had facilitated MCOM. If the means from Table 5 are converted to percentage of maximum scores, use of financial system is 62.8% and market participation is 59.1% respectively. Therefore, based on results from Tables 3, 4 and 5; a discussion on the implications of the study to the government is presented below.

DISCUSSION

The findings from the study align with findings from studies covered under the literature review. However, the findings contrast with the general assertion that GBE has not been effective in the transformation agriculture from subsistence to commercial agriculture as indicated in poor performance of the agriculture performance indicators ((NBS, 2021; MOFP, 2021; URT, 2017; Mogues, 2012; MALF, 2017). To start with scale of production, the findings show that GBE facilitated increase in medium to large scale farms, increase in volume of maize produced and increase in maize yields. These findings align with findings by Sikwese et al. (2022), Oyinbo et al. (2013), Sechoutdi and Chabossou (2020) that GBE has a positive impact on agriculture sector growth, agricultural production and productivity. The issues investigated under scale production by having a strong mean score shows that they contribute towards increasing rate of agriculture growth via increased production and productivity of the maize crop. This variable ranked fourth in terms of strength. Policy makers and decision makers should take note of this finding.

Regarding use of improved seeds, the findings show that GBE has facilitated increase in use of high yielding varieties (HYV) of maize and their supply. These findings also align with findings by Sikwese et al. (2022), Oyinbo et al. (2013), Sechoutdi and Chabossou (2020) because increasing production and productivity requires amongst other the use of the HYV of maize. Also, adequate supply or access to the HYV of maize. This finding also aligns to the ACOM studies' findings that governments need to invest on factors that promote ACOM. This finding is very important as the use of improved seeds in Tanzania is still very low at 32.5% against the target of 50% (NBS, 2021; URT, 2017). This variable ranked fifth or last in terms of strength. Therefore, this finding adds emphasis on why government needs to enhance use of improved seeds as one of the factors that promote ACOM.

Concerning mechanization of agriculture, the findings show that GBE has facilitated increase in supply of mechanization equipment as well as use of mechanization in maize farming. In order to increase production and productivity and contribute agricultural sector growth, mechanization is a necessity. This fact is evident as contained in the NAP 2013 that emphasizes on promotion of mechanization. Hence, the findings align with findings from Pradhan et al. (2010), Sikwese et al. (2022), Oyinbo et al. (2013), Sechoutdi and Chabossou (2020) that in order to ensure accelerated agricultural growth and the efficient functioning of agricultural markets, governments should consider several investments and interventions in hard infrastructure and soft infrastructure. Mechanization i.e. farm machinery, implements and equipment are part of hard infrastructure. This finding is also very important because the current situation on use of tractors and draught animal power is 33.3% against the target of 50% (NBS, 2021; URT, 2017). However, this variable ranked first in terms of strength and so policy makers and decision makers should take note of this finding.

Coming to the use of financial system, the findings show that GBE has facilitated increase in number of financial institutions providing agricultural credit, increase in value of credit to agribusiness, and increase in number of maize farmers accessing credit. This finding is very important because as it had been seen, commercial banks' domestic lending to agriculture is just a mere 8.5% of all domestic lending (MOFP, 2021). This level of lending is despite agriculture employing around 65% of the total population. No wonder why agriculture sector performance in Tanzania is not encouraging. It is because access to credit enable farmers and other players in the crop value chains to purchase agricultural inputs and machinery as well as hire storage, transport and marketing services, all of which are important for improving ACOM as put forward by findings from Pradhan et al. (2010). Also from Agwu, Anyanwu and Mendie (2012), Mbitsemunda and Karangwa (2017), Hagos and Geta (2016), Morton and Martey (2021), Tafesse et al. (2023), Cazzuffi et al. (2020), and Raj and Hall (2020). Nonetheless, the variable ranked second in terms of strength. Hence, policy makers and decision makers should strongly take note of this finding to contribute towards effective ACOM in Tanzania.

Lastly, on market participation, the findings show that GBE has facilitated increase in number of agricultural inputs businesses, increase in number of maize farmers purchasing agricultural inputs, increase in number of maize farmers selling produce to the market, and large increase in volume of maize sold in the market. Hence, market participation has been facilitated by GBE. This finding aligns to findings by almost all of the authors covered in the literature review. The meaning is that GBE has done relatively well in supporting the government investments and interventions in hard infrastructure and soft infrastructure that promote ACOM as put forward by Pradhan et al. (2010). For instance, increase in number of maize farmers purchasing inputs and maize farmers selling produce to the market can be attributed to access to credit and road and transport infrastructure as discussed by Mutabazi et al. (2013). Other scholars have also discussed other factors supporting ACOM that can also be attributed. Farmers having increased selling produce to the market can also be due rise in production and productivity which could have risen via access to agricultural extension services as discussed by Mbitsemunda and Karangwa (2017). This variable ranked third in terms of strength and so it shows a promising picture with regards to MCOM and ACOM as a whole.

A very interesting feature of the findings is that there is a strong relationship between production and productivity with use of improved seeds as evidenced through the rankings of the variables in terms of strength. Use of HYV of maize

ranked last followed by scale of production. This shows that, as the use of improved seeds was not impressive it also led to not so impressive increase in scale of production. This finding is consistent with maize productivity indicators in Tanzania whereby the national average maize yield is 1.5 tonnes/ha compared to the target of 4 tonnes/ha (URT, 2017; NBS, 2021). Therefore, policy makers and decision makers need to look at these two variables i.e. scale of production and use of improved with a keen eye.

CONCLUSION

The study has demonstrated that GBE can effectively facilitate ACOM contrary to the general assertion that GBE has not been effective in the transformation agriculture from subsistence to commercial agriculture. The GBE has facilitated maize commercialisation in Mbeya and Songwe regions through increased scale of production, use of HYV of maize, mechanization of maize farming, use of financial system and market participation of maize. Mechanization of agriculture ranked first in terms of strength followed by use of financial system, market participation, scale of production and lastly use of HYV of maize. The latter variables being ranked last in terms of strength, shows that the variables are strongly interrelated because they deal with production and productivity of maize. Nevertheless, the findings concerning mechanization of agriculture, use of financial system and market participation indicate a promising picture regarding ACOM based on explanations by Wharton (1963), Todaro (1989), Pingali and Rosegrant (1995). Mbeya and Songwe regions are on the right path of moving from a low productivity traditional agriculture to a high productivity commercial sector as put forward by the scholars. Therefore, to sum up, GBE ought to be given due importance as a key feature in accelerating agricultural transformation in Tanzania as evidenced on how it facilitated commercialisation of maize in the study area.

RECOMMENDATIONS

Based on the conclusions of the study discussed above, the researchers recommend as follows. With a focus on maize, the government through GBE should strengthen implementation of programmes that enhance production and productivity in agriculture because these features are the foremost prerequisites of high level of MCOM as well as ACOM as a whole. The government should review the policy and regulatory environment to enable increased investment and access to mechanization of maize farming as well as the entire agricultural sector. Mechanization is a key factor in increasing production and productivity in agriculture. Likewise, the government should review and enhance implementation of initiatives aimed at increasing financial institutions extending credit to the maize value chain and agriculture as a whole. In addition, the government should enhance implementation of initiatives that create a favourable environment for accessing credit in the maize value chain as well as the whole agricultural sector. The government through GBE should also increase investments on roads, storage and market infrastructure as these have been shown to promote ACOM as evidenced through MCOM in the study area. Finally, the research of this study recommends the following area for further research; how can GBE effectively enhance production and productivity in agriculture. It will be a very critical research area as the variables to be investigated are the first prerequisite factors in the maize and other crops value chain towards ACOM.

ACRONYMS

ACOM	Agricultural Commercialisation
ASDP	Agricultural Sector Development Programme
DAICO	District Agriculture Irrigation Cooperative Office
GBE	Government Budgetary Execution
LGA	Local Government Authority
MALF	Ministry of Agriculture Livestock and Fisheries
MCOM	Maize Commercialisation
MOFP	Ministry of Finance and Planning
MTEF	Medium Term Expenditure Framework
NBS	National Bureau of Statistics
SAGCOT	Southern Agricultural Growth Corridor of Tanzania
URT	United Republic of Tanzania

REFERENCES

- Agwu, N. M., Anyanwu, C. I. & Mendie, E. I. (2012). Socio-economic determinants of commercialization among smallholder farmers in Abia State, Nigeria. *Greener Journal of Agricultural Sciences*. 2(8), 392 – 397.
- Cazzuffi, C., McKay, A., Perge, E. (2020). The impact of agricultural commercialization on household welfare in rural Vietnam. *Food Policy*. Elsevier. Retrieved November 15, 2022 from <https://doi.org/10.1016/j.foodpol.2019.101811>
- Hagos, A. and Geta, E. (2016). Review on smallholders agriculture commercialization in Ethiopia: what are the driving factors to focused on? *Journal of Development and Agricultural Economics*. 8(4) 65 – 76
- Kothari, C. R. (2011). *Research methodology: Methods and techniques*. New Delhi: New Age International Publishers
- Mbitsemunda, J. P. & Karangwa, A. (2017). Analysis of factors influencing market participation of smallholder bean farmers in Nyanza district of Southern province, Rwanda. *Journal of Agricultural Science*. 9(11), 99 – 111.
- McCaffery, J. C. & Mutty, J. E. (1999). The hidden process of budgeting: Execution. *Journal of Public Budgeting*. 11(2), 233 – 257.
- Ministry of Agriculture Livestock and Fisheries (2017). *Agriculture joint sector review for 2014/15 and 2015/16*. Government Document, Dar es Salaam
- Ministry of Finance and Planning (2021). *National Economic Survey for 2020*. Government Document, Dodoma
- Mogues, T. (2012). What determines public expenditure allocations? A review of theories and implications for agricultural public investment. *FAO ESA Working PaperNo. 12-06*
- Morton, G., Martey, E. (2021). Market information and maize commercialization in the savannah and northern regions of Ghana. *Scientific African*. 13(2021) Retrieved June 27, 2023 from <https://doi.org/10.1016/j.sciaf.2021.e00938>
- Mutabazi, K., Wiggins, S. & Mdoe, N. (2013). Commercialisation of african smallholder farming. The case of smallholder farmers in central Tanzania. Retrieved August 7, 2017 from <http://www.future-agriculture.org/press.htm>
- National Bureau of Statistics (2021). *National sample census of agriculture 2019/20 – national report*. Government Document, Dodoma
- Oyinbo, O., Zakari, A., Rekwot, G.R. (2013). Agricultural budgetary allocation and economic growth in Nigeria: implications for agricultural transformation in Nigeria. *The Journal of Sustainable Development*. 10(1), 16 - 27
- Pingali, L.P. & Rosegrant, M.W. (1995). Agricultural commercialization and diversification: process and policies. *Food Policy*. 20(3), 171–185.
- Pradhan, K., Dewina, R. & Minsten, B. (2010). Agricultural commercialization and diversification in Bhutan. *IFPRI (International Food Policy Research Institute)*, Washington, DC, USA
- Raj, K., Hall, R. (2020). The commercialization of smallholder farming – A case study from rural western middle hills of Nepal. *Agriculture 2020*. MDPI. Retrieved December 28, 2022 from <http://dx.doi.org/10.3390/agriculture10050143>
- Sechoutdi, Y.P., Chabossou, F.A. (2020). Is public agricultural expenditure effective on agricultural production in Sub Saharan Africa? *International Journal of Economics, Commerce and Management*. 8(8), 312 – 327
- Sikwese, N.G., Mmasa, J.T., Mwinuka, L. (2022). The effect of recurrent budget expenditure on growth of agricultural sector in Tanzania. *Tanzania Journal of Agricultural Sciences*. 21(1), 138 - 148
- Tafesse, A., Gechere, G., Asale, A., Belay, A., Recha, J., Aynekulu, E., Berhane, Z., Osano, P., Demissie, T., Solomon, D. (2023). Determinants of maize farmers market participation in southern Ethiopia: emphasis on demographic, socioeconomic and institutional factors, *Cogent Food and Agriculture*, 9:1, 2191850 Retrieved June 30, 2023 from <https://doi.org/10.1080/23311932.2023.2191850>
- Todaro, P.M. (1989). *Economic development in the third world*. Longman Group UK Limited. Longman House, Burnt Mill, Harlow, Essex CM20 2JE England
- United Republic of Tanzania (2017). *Agricultural sector development programme phase two (ASDP II)*. Government Programme Document, Dar es Salaam
- Wharton, C.R. (1963). Research on agricultural development in Southeast Asia. *Journal of Farm Economics*, 45(1), 1161 – 1174
- World Bank (2021). Raising the bar, achieving Tanzania's development vision. *Tanzania Economic Update-Issue 15*. World Bank, Washington DC
- Zhou, S., Minde, I. J., & Mtigwe, B. (2013) Smallholder agricultural commercialization for income growth and poverty alleviation in southern Africa: a review. *African Journal of Agricultural Research*. 8(22), 2599 – 2608