



UNITED REPUBLIC OF TANZANIA  
**PRIME MINISTER'S OFFICE**

**Public Expenditure Review on Agricultural Sector  
2017/18 – 2019/20**

FINAL REPORT, DECEMBER 2021



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## Acronyms and abbreviations

AgPER	Agriculture Public Expenditure Review
ASA	Agriculture Seeds Agency
ASDP	Agriculture Sector Development Programme
ASLM	Agriculture Sector Lead Ministries
ASTI	Agriculture Science and Technology Indicators
AU	African Union
BoT	Bank of Tanzania
CAGR	Cumulative Average Growth rate
CAADP	Comprehensive Africa Agriculture Development Programme
COFOG	Classification of the Functions of Government
CSA	Climate-Smart Agriculture
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GEA	Government Expenditure on Agriculture
GFS	Government Financial Statistics
GoT	Government of Tanzania
IFAD	International Fund for Agricultural Development
IPSAS	International Public Sector Accounting Standards
JSR	Joint Sector Review
LGA	Local Government Authorities
MAFAP	Monitoring and Analysing of Food and Agricultural Policies
MIT	The Ministry of Industries and Trade
MLF	The Ministry of Livestock and Fisheries
MLHHSD	Ministry of Lands, Housing and Human Settlement Development
MNRT	The Ministry of Natural Resources and Tourism
MoA	The Ministry of Agriculture
MoFP	The Ministry of Finance and Planning
MoW	The Ministry of Water
MTEF	Medium Term Expenditure Framework
NBS	National Bureau of Statistics
NFRA	National Food Reserve Agency

PEA	Public Expenditure on Agriculture
PER	Public Expenditure Review
PO-RALG	President's Office, Regional Administration and Local Government
SPEED	Statistics of Public Expenditure for Economic Development
TAFICO	Tanzania Fishing Corporation
TAFSIP	Tanzania Agriculture and Food Security Investment Plan
TARURA	Tanzania Rural and Urban Roads Agency
TASAF	Tanzania Social Action Fund
ToR	Terms of Reference
TZS	Tanzanian shilling
URT	United Republic of Tanzania

## Executive Summary

1. This report uses various definitions of the agricultural sector to present a public expenditure review from 2017/18 to 2019/20.

This report presents the Public Expenditure Review (PER) of Tanzania's agricultural sector (including crops, livestock, forestry, and fishery) over 2017/18-2019/20. Data was collected from both government (central and local levels) and donor sources, classified and analysed from July to October 2021 to identify the trends and composition of agricultural spending, and assess its alignment with stated policy priorities.

This PER follows the methodology and framework of FAO-MAFAP for monitoring and analysing food and agricultural policies (FAO, 2015). Different definitions of agriculture are used in the report, with additional coverages for various users. Public expenditure is thus analysed: (i) for the core sector, following the COFOG+ definition; (ii) for an enlarged definition of the sector, including agriculture-specific expenditures (COFOG+) and agriculture-supportive expenditures (including rural roads, rural energy etc.) (FAO-MAFAP methodology); (iii) for Agricultural Sector Development Programme Phase II (ASDP II), the primary agriculture policy framework in Tanzania.

2. Agricultural expenditures increased but remained at about a fifth of the CAADP target over the period

The overall level of allocations to agriculture (COFOG+) increased in absolute and relative terms over the period. In nominal terms, spending on agriculture (as defined by COFOG+) increased from TZS 585 billion in 2015/16 to TZS 846 billion in 2017/18 and TZS 970 billion in 2019/20 in nominal terms. Over the period, 75% of the budget was channelled through the central and 25% through the local levels.

Agricultural spending is meagre than the CAADP target of committing 10% of the national budget to the agricultural sector. Agriculture allocation (COFOG+) represented 2.7% of national budget in FY 2017/18 (up from 2.6% in 2015/16), 2.6% in 2018/19 and 2.9% in 2019/20. Over the period 2005/06 to 2015/16, budget allocation to agriculture fluctuated between 1.4% and 4.5% of the national budget. It is also small compared with the agricultural GDP (3.8% over the period).

3. The funding gap represents a large half of the budget, but execution levels are high.



**A significant budget level was unfunded:** the funding gaps reached 47% in 2017/18, 35% in 2018/19 and 46% in 2019/20 at the central level, with an average of 43% over the period. However, they were much higher on the development allocations (63%).

**Central ministries and institutions reported high execution rates,** except for the Irrigation Commission (73%) and the Ministry of Agriculture (92%).

**The same trends are found at the ASDP II level.** While the approved budget was TZS 445.5 billion (2018/19) and TZS 489.7 billion (2019/20), the total released funds were TZS 243.8 billion (2018/19) and TZS 288.8 billion (2019/20). The average funding gap was 43%. However, the rate was 99.1% and 72.8% on the execution side in the first and second years.

**Project earmarking and off-budget financing modality have remained the dominant form of funding activities,** contrary to the spirit of the ASDP II programming document. More effective coordination through collaborative planning, monitoring and evaluation would attract more resources and facilitate alignment with sector objectives.

#### 4. Foreign aid likely represents between a quarter and a third of public agricultural expenditures.

**Access to accurate and harmonized data on off-budget expenditures is a challenge.** The ASDP II National Coordination Unit (NCU), created in 2019, increasingly coordinates data collection on foreign aid to the sector. However, gathering information for off-budget activities over the 2017/18-2019/20 period proved challenging, and the data collected is likely incomplete, with quality concerns.

**Findings suggest that off-budget foreign aid covers a significant part of resources, about one-third of public agricultural spending.** The data collected shows that off-budget financing has been increasing from TZS 192.5 billion in 2017/18 (23% of agricultural allocation), TZS 250.2 billion in 2018/19 (30%) and TZS 349.1 billion in 2019/20 (36%). A couple of large projects drive these trends, and they mask the fact that significant donors have reduced their commitments over the period.

**ASDP II gets support from the development partners, and after two years, it amounts to 15% of the expected contribution over five years.** ASDP II's original budget includes TZS 7,368.7 billion from donors over 2017-2028. Contribution currently amounts to 15% of expected funding, with a particular lag on the "Sustainable Water and Land Use Management" component of ASDP II. Early

analysis conducted in the PER points out a need for improved geographical targeting of projects to enhance impact.

5. Public agricultural spending remains focused on recurrent budget, while development budget remains limited.

**Public spending increasingly focused on the recurrent budget instead of the development budget.** The shares of agriculture (COFOG+) recurrent budget were 56% in FY 2017/18, 58% in 2018/19 and 56% in 2019/20. The development budget represented 44% in FY 2017/18, 42% in 2018/19 and 44% in 2019/20. In addition, over the period, the development budget allocation planned by the local level (LGAs) collapsed from TZS 47.1 billion in FY 2017/18 to TZS 6.4 billion in FY 2019/20.

**The cooperatives sub-sector does not have a development budget.** The review period shows that the cooperatives sub-sector, as represented by the Tanzania Cooperatives Development Commission (TCDC), did not include any development expenditures in its MTEFs. This means TCDC has no projects to implement in the cooperatives sub-sector.

6. Public spending in agriculture targets public goods, with a significant focus on infrastructure.

**Analysis of budget composition shows that most spending supports institutions and general support.** Over the period, institutions (administration costs) received 21.1% of the agricultural budget, public support of 57.7% and agents (transfers to producers and consumers) 21.2%. The latter's share has been decreased significantly in the absence of a national subsidy program. However, its share has been increasing over the period under review because of allocations to state-owned enterprises (ASA for seed and TAFICO for fisheries).

**General support for agriculture (COFOG+) is primarily targeted for infrastructure, marketing, and storage.** Allocation to infrastructure increased from TZS 50.7 billion to TZS 68 billion over the three years. It included off-farm irrigation (72.1%), feeder roads (1.7%) and a whole range of other infrastructures (26.3%) such as charcoal dams, animal dips, drying platforms, and livestock health facilities.

**While Tanzania provides low support to its agricultural sector (COFOG +), it invests significantly in its supportive environment through additional rural infrastructure.** The analysis of public allocation to agriculture in its broader sense (FAO-MAFAP definition), including rural energy, rural roads, water supply and sanitation, reaches

TZS 2.028 trillion in 2017/18, 1.842 trillion in 2018/19 and 1.941 trillion in 2019/20. This level of resource allocation into agricultural support is on average twice as much as what was spent on the sector itself.

## 7. Expenditures are low on agricultural research and climate change adaptation

**Agricultural research represented less than 5% of agricultural expenditures.** On average, over the period, expenditures on agricultural research only reached 15% of the “Khartoum Target” for research in Africa (which commits to allocate 1% of agricultural GDP to research).

**Data was specifically collected to analyse investments that could contribute to climate-smart agriculture, which turned out to be very low.** More budgeted activities target agroforestry (53.4%), conservation agriculture (19.2%), knowledge and capacity building (17.4%), pasture management (5.8%) and grazing management (3.6%). Together, they represent about 1.1% of all agricultural spending (COFOG+).

## 8. Policy Recommendations

The agricultural public expenditures review for 2017/18-2019/20 leads to the following recommendations:

- **Turn agriculture into a growth engine by prioritizing investments in the sector, particularly investments in development expenditure.**

Agricultural growth in Tanzania requires long-term structural investments, facilitating inclusive growth catering to over 75% of the population. This would need development expenditures to exceed recurrent ones in terms of sectoral allocation. The downward trend of development expenditures at the local level mainly concerns the sector's mid to long-term transformation, potentially reversing progress made through past investments. While an overall increase in public spending is necessary for Tanzania's agricultural sector, fiscal space remains scarce. Therefore, agricultural spending is of utmost importance to provide as much value for money as possible. Further analysis is thus recommended to assess the effectiveness of public expenditure in critical strategic areas for Tanzania's agricultural growth.

- **Focus spending on high-return areas and commodities**

Improving the targeting of spending over space will help increase value for money. There is a need to assess the criteria for the spatial distribution of funds between regions and agro-ecological zones. For instance, investments in irrigation for both large-scale and small-scale farms could be targeted in specific areas and crops beyond paddy rice, such as cotton and tea. Targeting could also be improved on commodities that support sector growth, ensure food security and resilience to climate change.

- **Invest for the future: boost agricultural research and extension services and gear up climate change adaptation**

Expenditures on research and extensions services have been shown to have the highest returns on investments to boost productivity. A change of strategy to foster innovation at all levels in Tanzanian agriculture and food value chains would boost growth and foster value and job creation. Future development will also closely depend on the capacity of the whole sector to adapt to climate change, expected to hit hard the country and undermine agricultural productivity in the mid to long term. In the upcoming decade, significant investments are needed for Tanzania to meet this challenge.

- **Improve on and off-budget reporting to inform decisions better**

Data collection proved to be challenging for off-budget and the local levels. Understanding how much money is allocated to the sector at the local level is core

to improving returns of public funding and improving targeting. There is a need to develop and harmonize the systems and databases that capture agricultural sector data to provide efficient and effective means to build evidence-based guidance for the sector.

- **Improve funding coordination to support government priorities and ASDP II**

For Tanzania to meet its ambitious development goals and transform its agricultural sector into a growth engine, all partners must pull in the same direction. Strengthening coordination mechanisms and ensuring complementarities between on and off-budget projects implemented at the district level with District Agricultural Development plans (DADPs) will thus be critical. Revitalising a basket fund to support ASDP II could be highly relevant to the strategies to do so.

- **Decide on the consistency of using a specific PER methodology**

Past PERs were based on high-level analysis using functional form data on the Government expenditures. This year, PER was based on FAO-MAFAP methodology with a detailed breakdown into four levels of analysis. There are other methodologies to undertake PER in the agricultural sector; hence, the decision is required to select and apply methodology consistently to benefit from comparative indicators. An alternative approach is to develop the country's own PER methodology to respond to local needs.

- **Develop mechanism on data gathering for PER and sector usage**

Tanzania has conducted PER on the agricultural sector over several years; however, data collection has been a challenge and time-consuming. It is recommended that a data gathering mechanism and archiving database be developed to enable lite PER to be conducted every year and in-depth PER to be worked every three years.

- **Set a realistic target for sector allocation with a marginal increase each year.**

Many African countries found it challenging to allocate resources up to 10% of their national budget to the agricultural sector. Therefore, it is recommended that strategic decisions be made to step up allocation with a realistic target of 5% in a five-year timeframe. This means the target to step up the budget to 3.3%, 3.7%, 4.3%, 4.6%, and 5% can be achieved in the next five years.

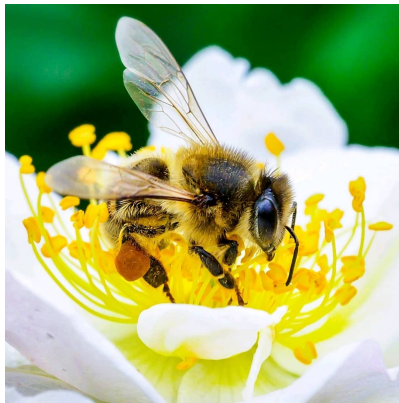
- **Carry out further studies to support PER results**

Further analysis is thus recommended to assess the effectiveness of public expenditure in critical strategic areas for Tanzania's agricultural growth. The additional studies proposed include agricultural public expenditure impact assessment, support for farming mechanisation, and agro-processing.



# 1 BACKGROUND AND CONTEXT

## 1.1 Introduction



This is a report of the public expenditure review on the agricultural sector in Tanzania. The report was prepared by the Joint Agricultural Sector Review (JSR) Technical Team with the support of two consultants, Selemani Omari (Lead Consultant) and Dr Hussein Nassoro (Assistant Consultant). The two consultants were commissioned by FAO UN, through the Monitoring and Analyzing Food and Agricultural Policies programme (MAFAP), to support the JSR Technical Team in Tanzania to undertake the assignment for the fiscal years 2017/18–2019/20. The World Bank Group provided additional support, both financial and technical, towards the completion of this exercise. The Government tasked the Joint Agricultural Sector Review (JSR) with two components of the assignment, i.e., Agricultural Sector Review (ASR) and Public Expenditure Review on Agricultural Sector (PER). This report is for the second component of the assignment, i.e., Public Expenditure Review on Agricultural Sector, simply been referred to in this report as PER.

Almost 20 years from the Maputo Declaration (2003), many African countries struggle to meet the commitment of 10% of national budget allocation to food and agriculture (FAO, 2021). Most reviewed literature pointed out that investments in the agriculture sector have a significant impact on the nations' economies compared to other sectors in terms of economic growth, employment, rural livelihood, food security, and poverty reduction. However, the level and quality of investment are critical; hence, the need for PERs to provide evidence-based information to decision-makers. The Public Expenditure Review analyses public spending data from government and donor sources to assess the alignment between expenditure patterns within the agriculture sector and stated policy priorities. This study follows the last agriculture PER, conducted in 2017 and

covered two fiscal years, 2014/15 and 2015/16. This current PER study covers a three-year budgetary period from 2017/18 to 2019/20.

## 1.2 Study aim

The African countries who are members of the African Union (AU) implement the Comprehensive Africa Agriculture Development Programme (CAADP) through its various interventions and projects that include National Agriculture Investment Plans (NAIPs). In the case of Tanzania, it is the "Tanzania Agriculture and Food Security Investment Plan" (TAFSIP, 2011). TAFSIP was ten years (2011–2021) plan implemented under the Agriculture Sector Development Programme (ASDP). The AU, through CAADP, has opted for specific monitoring mechanism approaches to the programmes and projects on agriculture in Africa, which are Agriculture Sector Review (ASR) and Public Expenditure Review on Agriculture (PER). Therefore, ASR and PER are part of the monitoring mechanism as approved by the leaders and heads of African countries under the Maputo Declaration (2003) and reiterated in Malabo Declaration (2014).

Therefore, the AU has supported the implementation of a monitoring mechanism to track agriculture public expenditure in Africa and help African states uphold their commitments to the declarations. The importance of monitoring agricultural expenditures also falls in line with the willingness of donors and partner countries to enhance aid effectiveness by improving accountability and overall public financial management practices. Tanzania has been conducting agriculture PER and ASR for several years, with a large amount of data and experience available in the past. The key aim of PER has never changed, that of contributing to improved policies, implementation performance, and impact on agricultural expenditures (World Bank, 2011). PER has two dimensions that of level and composition of the public spending. An analysis of coherence will complement key dimensions with policy objectives, execution rate, timeliness, efficiency, and returns on expenditures to further assess public expenditures' quality.

ASR and PER are both crucial tasks to inform, among other issues, the progress on implementation of the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihood under CAADP. PER

and ASR will contribute to Tanzania's submission to the Third Biennial Review Report on implementing the Malabo Declaration (Biennial Review 2022).

### 1.3 Agriculture Sector



The backbone to the African Union (AU) efforts to achieve economic integration and development in Africa is the New Economic Partnership for Africa's Development (NEPAD), adopted in 2001. The NEPAD program aims at promoting development in a variety of fields, including Agriculture and Food Security. The Comprehensive Africa Agriculture Development Programme (CAADP) was adopted in 2003 through Maputo Declaration and reiterated in 2014 through Malabo Declaration.

The Malabo Summit reconfirmed that agriculture should remain high on the continent's development agenda and is a critical policy initiative for Africa's economic growth and poverty reduction. Among the vital commitment resolved in Malabo Summit are the following: uphold early commitment to allocate at least 10% of public expenditure to agriculture, and to ensure its efficiency and effectiveness; ensure that the agriculture growth and transformation process is inclusive and contributes at least 50% to the overall poverty reduction target; and ensure that by 2025, at least 30% of farm, pastoral, and fisher households are resilient to climate and weather-related risks.

As in many African countries, Tanzania's agricultural sector has been a priority since independence in 1961. There have been political statements and declarations on the agriculture sector, including the famous Iringa Declaration 1974, "**Siasa ni Kilimo**", literally means "politics is agriculture". The agricultural sector is a backbone of the Tanzanian economy with significant contributions in economic facets such as 61.5% of total employment, 30% of total foreign currency earnings from exports, 65% of industrial sector raw materials, and food and nutrition security.

Tanzania is implementing the second Agriculture Sector Development Programme (ASDP II) as an economical vehicle for the sector's development. The duration of ASDP II is ten years (2017-2028). The main objective of ASDP II is to transform the agriculture sector (crops, livestock, and fisheries) towards higher productivity,

commercialisation level, and increase smallholder farmer income for improved livelihood, and guarantee food and nutrition security.

## 1.4 Report structure

The remaining part of this PER report is presented in the sections described briefly below:

- **Section 2:** This section presents the scope and methodology to undertake the PER assignment. The section highlights the area of the assignment, as stipulated in terms of reference (ToR), together with the methods adopted by the consultants and JSR Technical Team and data sources.
- **Section 3:** This section depicts the public agriculture expenditure level regarding the amount of money allocated and spent in the agricultural sector. Also, it provides indicators to assess the level of expenditures relative to the national resources, such as GDP and total spending.
- **Section 4:** This section reflects the quality of public expenditures in agriculture, that is, composition. Composition answers the question: "where is money spent in agriculture?". It provides a breakdown of components of expenditures into critical areas to assess the quality of investments.
- **Section 5:** This section provides information on other aspects of the quality of public expenditures that include funding gaps, execution rates, returns on investments, climate-smart agriculture, and rural development support.
- **Section 6:** This section provides public expenditures analysis on the ASDP II program, highlighting its programming structure, resources allocations, and program execution over two years.
- **Section 7:** This section provides a summary and recommendations based on issues that emerged from the PER. The summary is presented as key findings and recommendations focused on policy issues.

## 2 METHODOLOGICAL APPROACHES

### 2.1 General approach



Tanzania has been conducting agricultural sector PER and ASR over several years with a large amount of data and experience available in the past. The key aim of PER has never changed, that of contributing to the improved policies and implementation performance and impact on agricultural expenditures (World Bank, 2011). PER has two dimensions that of level and composition.

Qualitative attributes of public expenditures complement those key dimensions. The features include analysis of coherence with policy objectives, execution rate, timeliness, efficiency, returns on expenditures to assess the quality of public expenditures further. The general methodology has been a participatory mechanism of the Government, development partners, and stakeholders with the support of the technical team known as the Joint Agricultural Sector Review Technical Team.

### 2.2 Methodology

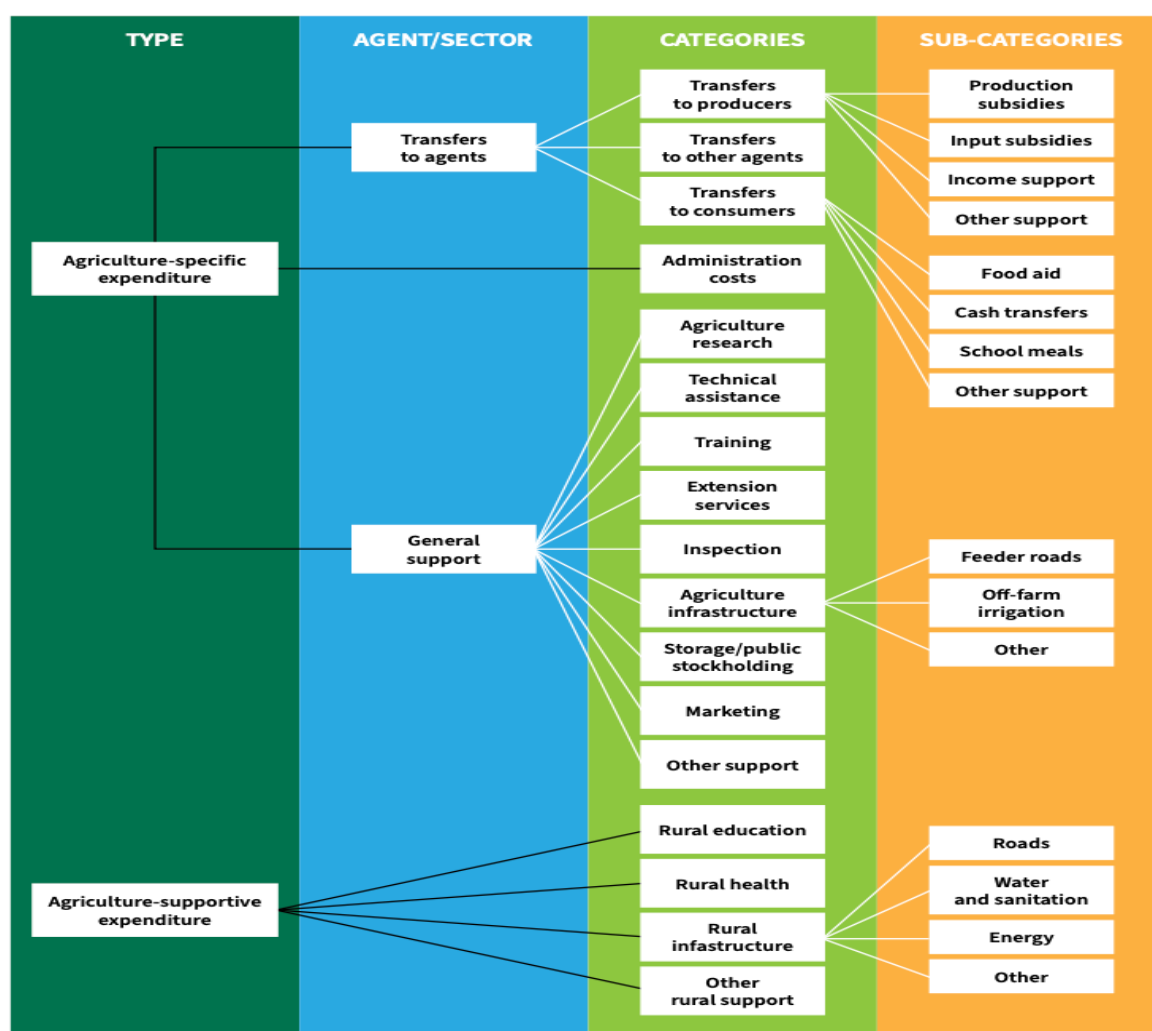
#### 2.2.1 *Description*

There are several methodologies that monitor and analyse agricultural expenditure, which can be used for public expenditure reviews (PERs). Examples of these methodologies include AgPER, ASTI, BOOST, IDS/CRS, GEA, FAO-MAFAP, and SPEED (FAO, 2015). One common theme of all the methods is the presentation of the expenditures data by different dimensions. In this PER, the terms of the reference are clear that an outline framework shall be FAO-MAFAP methodology, which will also incorporate data presentation as per the dimension of COFOG+ and ASDP II. MAFAP public expenditure on agriculture monitoring and analysis methodology forms part of the broader MAFAP methodology for monitoring and analyzing food and agricultural policies (FAO, 2015). It was



adapted from the OECD PSE methodology. The FAO-MAFAP methodology follows the four-level analytical approach to classification, whereby the first level is either expenditure is **agriculture-specific expenditures** or **agriculture-supportive expenditures**. These two types of expenditures are broken down into three other groups: agent/sector, categories, and sub-categories (see **Figure 2.1** below). These classifications can further be integrated with different dimensions such as the source of fund, distribution, and sub-sectors and others to produce numerous indicators and metrics to measure agriculture performance in technical efficiency (TE) and allocation efficiency (AE).

Figure 2.1: FAO-MAFAP methodology framework



Source: MAFAP, 2015.

## 2.2.2 *Pros and Cons*

**Table 2.1** below summarises the pros and cons of the FAO-MAFAP methodology in undertaking public expenditure review on the agricultural sector in Tanzania:

**Table 2.1: Pros and Cons of FAO-MAFAP Methodology**

Pros	Cons
<ul style="list-style-type: none"><li>• Provide a detailed breakdown of the public expenditures into four levels of analysis beyond functional form.</li></ul>	<ul style="list-style-type: none"><li>• The methodology is used for the first time in the country; hence, no comparison for many indicators presented in this report. Training is required by the technical team prior to undertaking the assignment.</li></ul>
<ul style="list-style-type: none"><li>• There is a guideline to support the analysis and classification of expenditures.</li></ul>	<ul style="list-style-type: none"><li>• There is no breakdown of the institutional category (administration costs); hence tricky to understand institutional set-up and overheads.</li></ul>
<ul style="list-style-type: none"><li>• Used by many countries in Africa, with the support of FAO UN; hence comparative analysis can be made among countries.</li></ul>	<ul style="list-style-type: none"><li>• There is no breakdown of categories "agricultural marketing", agricultural research", "extension services", and "transfer to other agents".</li></ul>

### 2.2.3 Classification Assumptions

Despite the existence of FAO-MAFAP classification guidelines, mapping and classification require certain assumptions on expenditures incurred by agricultural institutions with data in aggregate form. **Table 2.1** below summarises the classification assumptions made in this report.

Table 2.1: Pros and Cons of FAO-MAFAP Methodology

Institution	Split Rate	Components
Agricultural Inputs Trust	50%	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Farm Support</li> </ul>
Agricultural Seed Agency	33%	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Farm Support</li> <li>• Marketing</li> </ul>
LGAs (Personal Emoluments)	50%	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Extension Services</li> </ul>
National Food Reserve Agency	33%	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Farm Support</li> <li>• Marketing</li> </ul>
Agricultural Boards	25%	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Inspection</li> <li>• Marketing</li> <li>• Training</li> </ul>
Rufiji Basin Development Authority	25%	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Irrigation</li> <li>• Farm Support</li> <li>• Land Management</li> </ul>
Tanzania Official Seed Certification Institute	33%	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Marketing</li> <li>• Inspection</li> </ul>

Institution	Split Rate	Components
Tanzania Smallholders Tea Development Agency	50%	<ul style="list-style-type: none"> <li>Administration</li> <li>Farm Support</li> </ul>

## 2.3 Data Used

The data used in this PER was fetched from both secondary and primary data sources. Therefore, the availability and quality of data depend on the goodness of the methodology and quality of data collection systems used by implementing institutions. PER is about data analysis; therefore, any PER methodology is only as good as the quality of the underlying data available. Carrying out detailed classification and mapping, access to detailed data on both budgeted and actual expenditures is important (FAO, 2021). One major factor preventing better evidence-based policy support to governments is the limited coverage of highly detailed public expenditure data. In some countries, the focus of thorough data maintenance is on budget, while actual expenditures are highly aggregated and difficult for composition analysis. Models and tools that are developed to provide evidence-based information to policy-makers are data-demanding and require not only estimates of total spending on agriculture but also a detailed breakdown of these expenditures.

### 2.3.1 Consolidated data

On its official website, the Ministry of Finance and Planning (MoFP) ([www.mof.go.tz](http://www.mof.go.tz)) uploads several valuable revenue and expenditures data. The team extracted data for the three fiscal years 2017/18–2019/20 from the audited consolidated financial statements (URT, 2019-2021). The trends show both revenue and expenditure items were positively growing for the period of PER, though at different growth rates. The data extracted from the audited consolidated financial statements are on a cash basis, as the Government also presents the same year's results on an accrual basis as per International Public Sector Accounting Standards (IPSAS). This aggregate national data for the public expenditure shown in the audited consolidated financial statements are compared with data collected in PER.

### **2.3.2**      *Socioeconomic data*

In terms of the socioeconomic data, there are several published reports reviewed that contain relevant data and information for this PER, that include Monthly Economic Review (BoT, 2021b), Quarterly Economic Reviews (BoT, 2021a) and various statistical data from the National Bureau of Statistics such as population projections (NBS, 2018); Households Budget Surveys (NBS, 2019); and national statistic figures (NBS, 2020). The PER consulting team used the latest published reports from these institutions between June and October 2021.

### **2.3.3**      *Budget and actual data*

The detailed agricultural activities data were extracted from the medium-term expenditures framework (MTEF) books of the agricultural sector institutions in Tanzania (Refer to **Appendix B**). These institutions include the Agriculture Sector Lead Ministries (ASLMs) and non ASLMs, together with independent institutions with agricultural components in their budgets for FYs 2017/18 to 2019/20. The institutions are from both the central and local levels. Data were collected from 15 central agencies, 26 Regional Secretariats (RSs) and 184 Local Government Authorities (LGAs). Each of 184 LGA has two agricultural sector departments: Agriculture, Irrigation and Cooperatives Department; and Livestock and Fisheries Department.

The Regional Secretariats operate as central agencies, while LGAs are local agencies. The detailed budget data provided information on the mapping and classification as per the methodology outlined in this report. However, the MTEF books have limitations in giving actual expenditures of the same activities. Therefore, a summary template was prepared and completed to obtain the institutions' released funds and actual spending. The template was developed to capture aggregated expenditures on personal emoluments (PE), other charges (OC) and development expenditures (DEV) from each agricultural agency.



## 3 LEVEL OF PUBLIC EXPENDITURES

The level of public expenditure is a phenomenon that refers to spending related



to agriculture that was budgeted and spent by public institutions. Public funds are budgeted and spent to deliver specific outcomes to the public that include households, firms, and communities. PER analyses the allocation and management of public expenditures to determine if the desired strategic budgetary results of the Government are being achieved. It is an integral part of outputs and outcome-based budgeting. The

first assessment of the PER process is a determination of how much has been allocated and spent during a specific period. The question of how much is vital to assess the public expenditures by comparing the levels in the agricultural sector versus other economic and social sectors. Also, classes provide a framework to measure the relative importance of the agriculture sector to the total national allocations and gross domestic product (GDP) of the country.

### 3.1 Total Expenditures

#### 3.1.2 Summary of Allocations

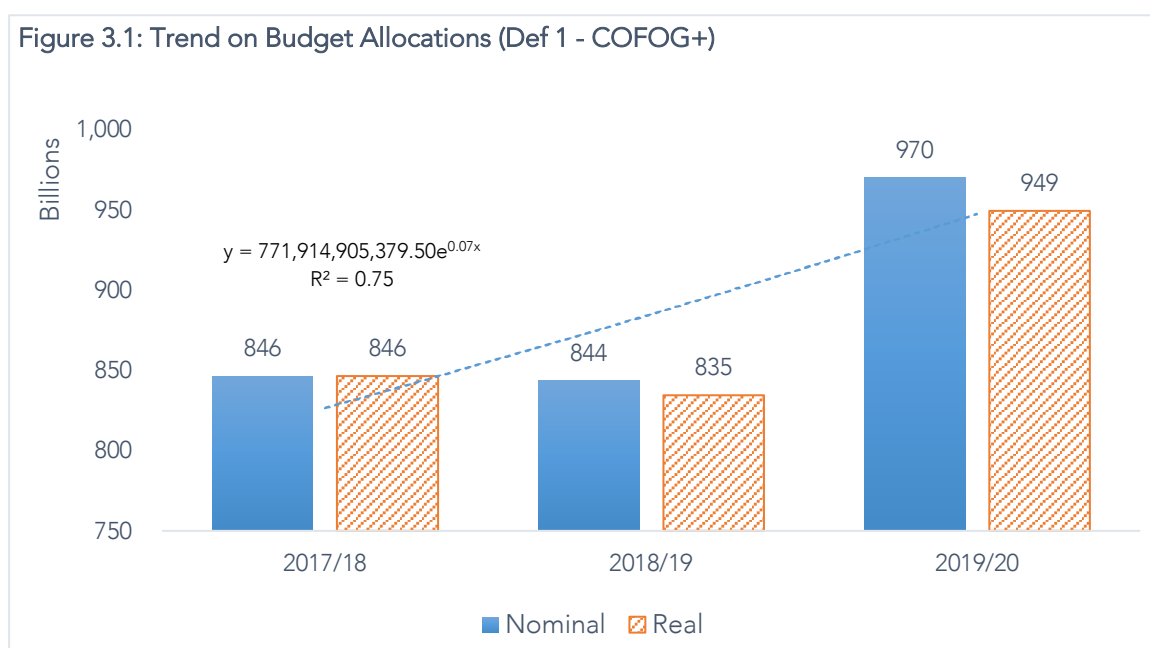
**Table 3.1** below summarises the total agricultural budget allocations in nominal terms, based on four different definitions as described above. The total budget allocations range between TZS 846.4 billion and TZS 2,290.8 billion.

Table 3.1: Total Allocations Summary (TZS billion)			
	2017/18	2018/19	2019/20
Definition 1 (COFOG+)	846.4	843.7	970.4
Definition 2 (COFOG+ and Off-Budget)	1,038.9	1,094.0	1,319.6

Table 3.1: Total Allocations Summary (TZS billion)			
	2017/18	2018/19	2019/20
Definition 3 (MAFAP)	2,028.9	1,842.4	1,941.7
Definition 4 (MAFAP and Off-Budget)	2,221.5	2,092.7	2,290.8

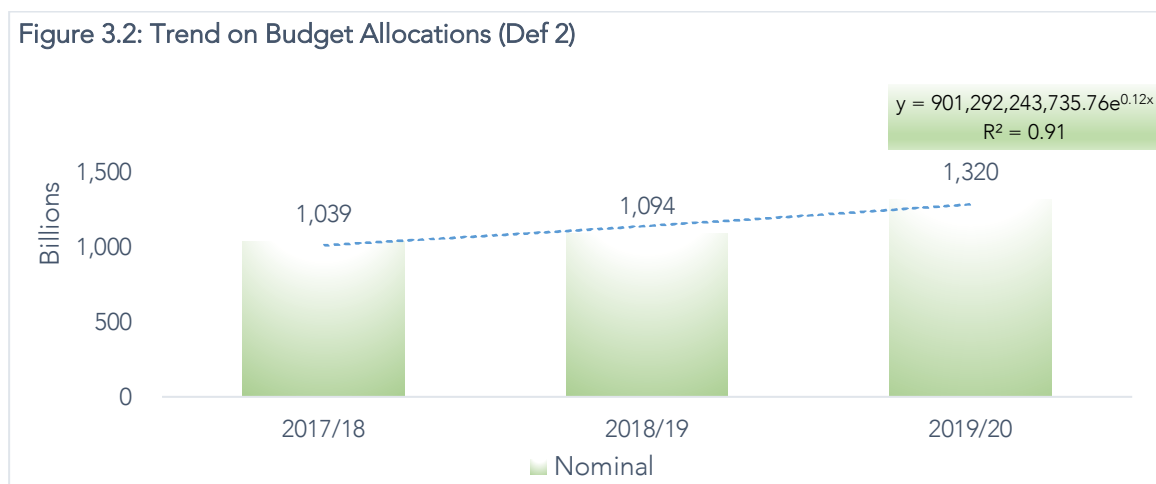
### 3.1.2 Trends on Budget Allocations

Based on the first definition of the agricultural sector (COFOG+), the trend on budget allocations on nominal terms shows a slight growth of 7% per annum<sup>1</sup>, between 2017/18 and 2019/20 (see **Figure 3.1**). Reflecting on real terms, the budget allocations growth CAGR was 6% per annum. The conversion of the nominal terms into real terms values was based on GDP deflator inflation of 1.6% (2018), 1.1% (2019) and 1.1% (2020) as reported by the MoFP (June 2021).



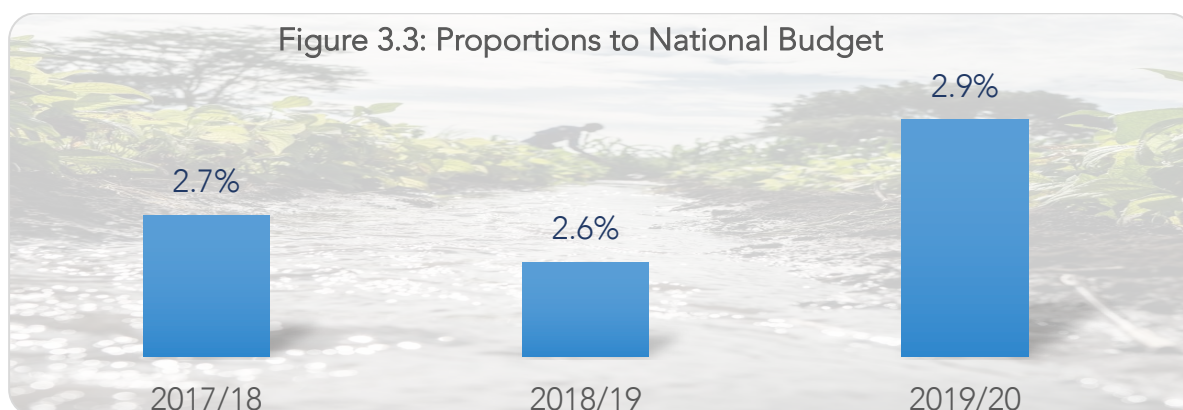
<sup>1</sup> Growth measured by exponential cumulative average growth rate (CAGR)

Figure 3.2 below shows the trend on budget allocation based on the second definition (COFOG+ and off-budget allocations). The trend shows budget allocation growth CAGR at 12% per annum, an increase that was contributed by off-budget included in determining total budget allocation as per second definition (COFOG+ and off-budget).



### 3.2 Proportions to Allocations

The first metric to measure the adequacy of resources allocation to the agricultural sector is the proportion of the resources from the national budget in a period. Figure 3.3 shows the trend in ratios of agriculture sector resources allocation (budget) to national total resources allocation for the three years. The level of funding was 2.7% in FY 2017/18, 2.6% in FY 2018/19 and 2.9% FY 2019/20 based on the first definition (COFOG+). **Between 2005/06 to 2015/16, the allocation to the agricultural sector in Tanzania ranged between 1.4% and 4.5% of the national budget. As a share of the national budget, the sector budget increased from 2.6% in 2015/16 to 2.9% in 2019/20.** The agricultural sector's increased resource allocation significantly came from forestry management and transfers to public agencies. The current level of resources allocation is below 25% of the targeted CAADP rate of 10% of the national budget.



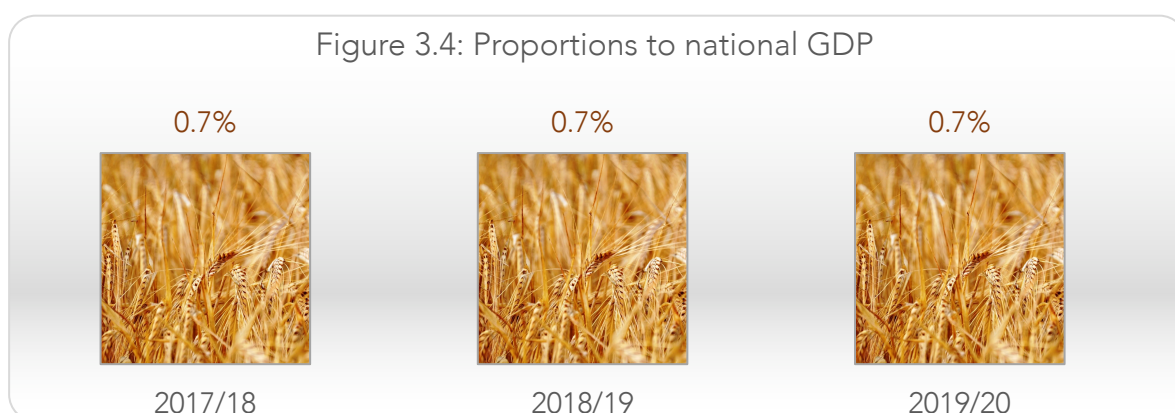
Source: Data from MoFP, calculations by consultant

### 3.3 Proportions to GDP

Other measures in assessing the level of agricultural sector allocation of the country are proportions of its budget share relative to the national GDP and its agricultural sector GDP. These two measures are highlighted in sub-sections 3.3.1 and 3.3.2 below based on the first definition (COFOG+).

#### 3.3.1 *Relative to National GDP*

Figure 3.4 shows the trend in proportions of agriculture sector resources allocation (budget) to the national gross domestic product (GDP). Relative to the national GDP, agricultural sector budget allocation was 0.7% of the national GDP in all three years, i.e., FYs 2017/18 to 2019/20.



Source: Data from MoFP, calculations by consultant

### 3.3.2 Relative to Agriculture GDP

Figure 3.5 shows the trend in proportions of agriculture sector resources allocation (budget) to the agriculture sector GDP for the three years. Relative to the agricultural sector GDP, the resources allocation to the sector range between 3.6% and 3.9%. The trend is fluctuating, been 3.8% in FY 2017/18, 3.6% in FY 2018/19 and 3.9% in FY 2019/20.

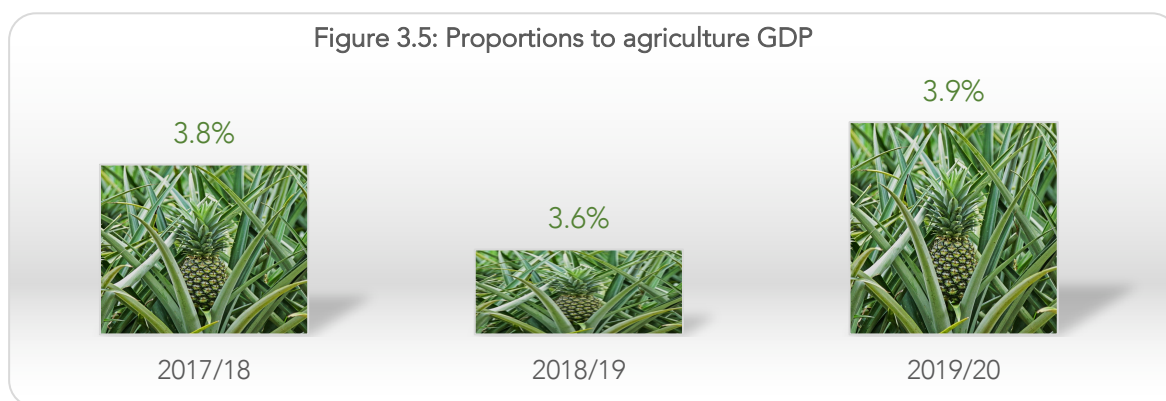
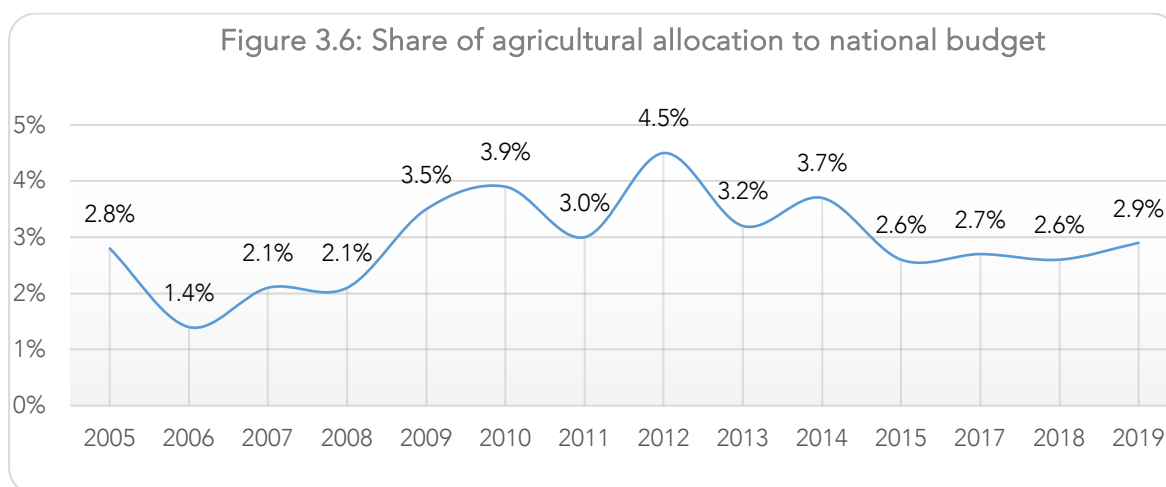


Figure 3.6 below shows the trend of the agricultural sector share to the national budget over 14 years. The highest achieved allocation was 4.5% in FY 2012/13, and the lowest was 1.4% in FY 2006/07. The current PER period has among the lowest share of budget allocations being below the simple average of 3.0% over the 11 years (2005-2015).



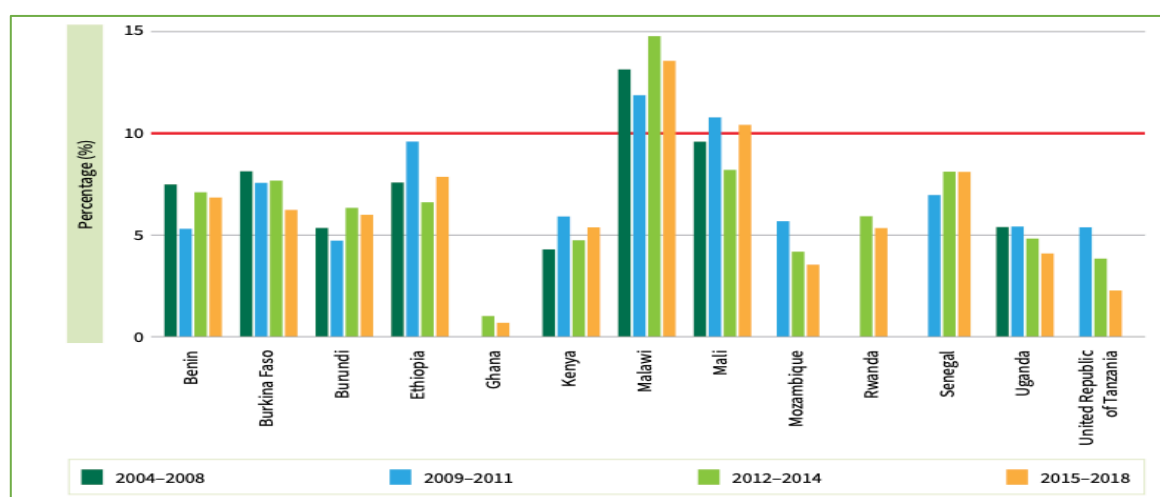
Source: Data from 2017 and current PER reports

### 3.4 Concluding Remark

The agriculture orientation index (AOI), as reported by UNCTAD (2016), is a measure to show the extent to which government expenditures on agriculture reflect or not the importance of agriculture in the overall economy. The AOI, which is used to track Sustainable Development Goal, SDG indicator 2.a.1, measures the government contribution to the agriculture sector compared to the sector's contribution to GDP. The calculated Tanzanian AOIs were 0.14 (2017/18), 0.14 (2018/19) and 0.16 (2019/20), which were above the Sub-Saharan African countries with an average AOI of 0.13 (FAO, 2021). The target is to have an AOI measure above 1.0.

The importance of investing in the food and agricultural sector as an engine for economic growth, employment creation and poverty reduction are widely covered in extensive studies (Wangusi and Muturi, 2015; Sers and Mughal, 2018; FAO, 2015; Temu et al., 2016; Ayoub and Mivumbi, 2019). It should be noted that between 2005 and 2020, Tanzania has not achieved CAADP 10% target. **Figure 3.7** shows the allocation of selected African countries based on the share of the agricultural sector allocation to the national budget between 2004 and 2018. None of the countries reached 10%, except Malawi and Mali.

Figure 3.7: Agricultural sector share allocation, nominal terms 2004-2018



Source: Adapted from FAO (2021).

## 4 COMPOSITIONS OF PUBLIC EXPENDITURES

Section 3 focused on how much was spent on the agriculture sector. This section



details the composition of public agricultural expenditures. Various economic studies have shown that not all public expenditures into the agricultural sector contribute positively to the growth and provides returns relative to the quantities of resources invested. However, understanding where money is spent is as critical, as the quality of public agricultural expenditures matters nearly as much as its quantity. Therefore, assessment of the

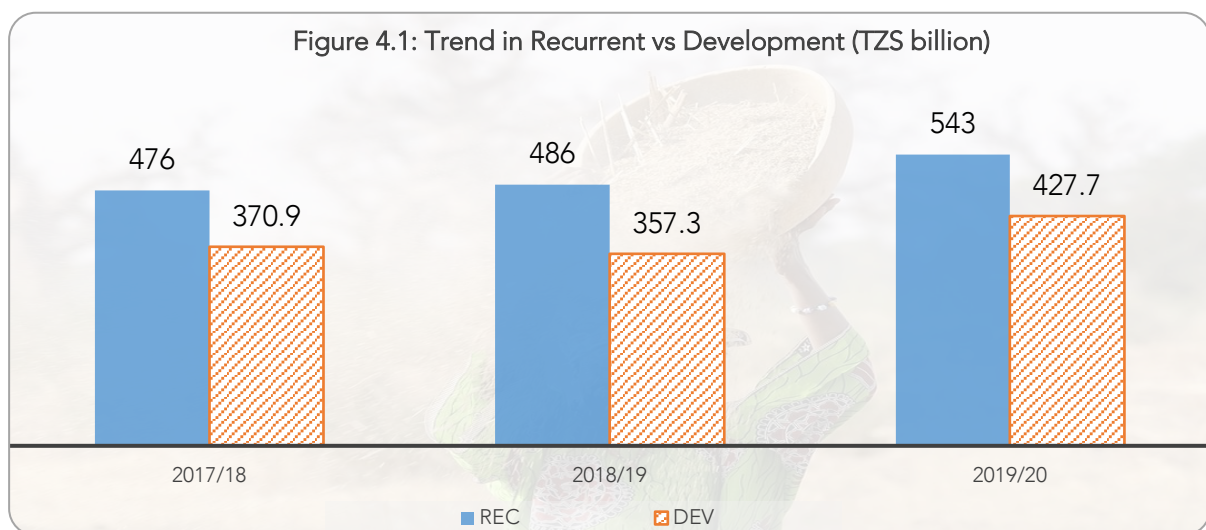
composition of the agriculture sector expenditures is of paramount importance to the PER to provide evidence-based information to support the policy-makers in directing the resources into more productive areas of the agricultural investment in the country.

During the analysis of expenditure data, one wants to present data structured by different dimensions. Therefore, the PER data compilation must be detailed. In this PER, the detailed data were obtained for the budget, i.e., resources allocation in which composition analysis can be done. Through composition analysis, performance indicators were derived and presented to reveal more insights into the sector resources allocation, alignment with policies and efficiency in implementation. The compositions dimension presented in this report is not exhaustive but provides a general picture of the sector resources allocation based on mapping and classification methodology adopted.



## 4.1 Budget Type Analysis

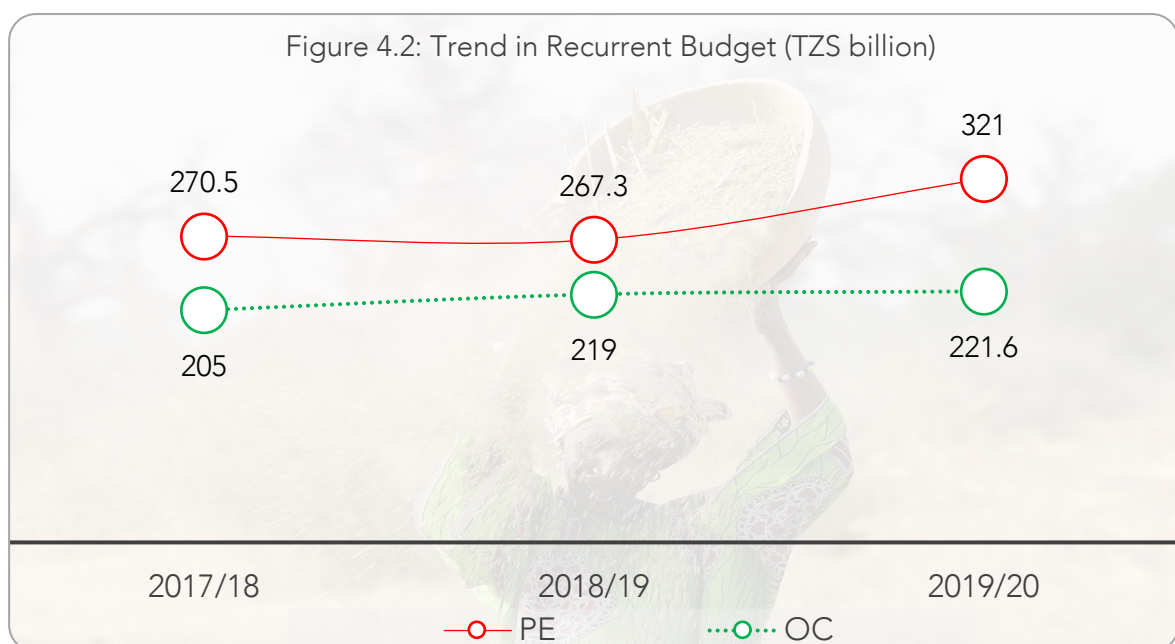
The budget in Tanzania is structured under two components of recurrent expenditures (REC) and development expenditures (DEV), which means projects and programmes. Based on the first definition (COFOG+), **Figure 4.1** shows the trend of the two budget items, recurrent vs development, during the review period. The share of the recurrent budget was 57%, while the development budget was 43%, the average of three years, i.e., 2017-2020. The patterns of resources allocation among the three budget types revealed no significant changes among the two kinds of budget. For all three years, the development budget allocations were below the level of the recurrent budget. **Growth and development in the agricultural sector require long-term investments, whereby development expenditures exceed the recurrent, especially during the initial stage of transformation in the country.**





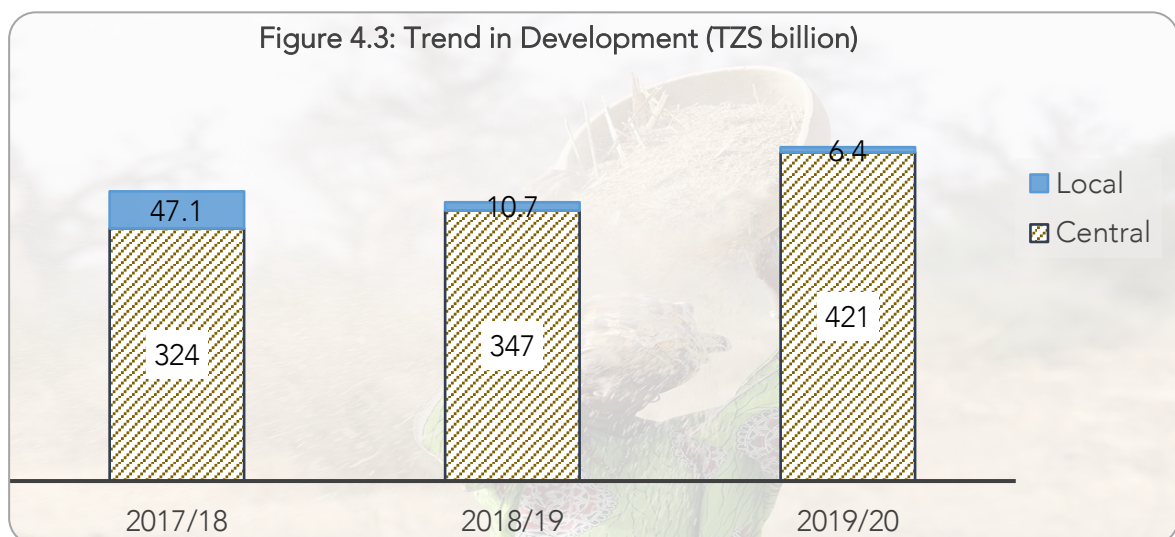
#### 4.1.1 Recurrent Expenditures

The recurrent budget comprises two items, personal emoluments (PEs) and other charges or operating costs (OCs). Recurrent budget composition shows higher personal emoluments (PEs) than the other charges (OCs) for the three years. PEs was an average of 57% of the total recurrent budget compared with the 43% average of OCs. The shares of OCs relative to the entire agricultural budget allocations were 24%, 26% and 23% for FYs 2017/18 to 2019/20, respectively. **Long-term investments require more operating costs than personal emoluments; hence, more allocation should increase the OCs. It should be noted OCs also include capital expenditures and other operating costs of the agricultural agencies, including services delivery cost, extension services, agricultural research and others.**



#### 4.1.2 Development Expenditures

Total development budget allocations were TZS 370.9 billion in FY 2017/18, decline to TZS 357.3 billion in FY 2018/19 and grew to TZS 427.7 billion in FY 2019/20. The three year-period has exponential annual growth (CAGR) of about 7% per annum. The composition of the development budget allocations shows that a portion of the development budget allocation as planned by the local level (LGAs) declined significantly from TZS 47.1 billion in FY 2017/18 to TZS 6.4 billion in FY 2019/20. During the FY 2017/18, several LGAs planned for development activities with a sign to be financed through ASDP II funds. **However, in later years the number of activities declined as per total resource allocations shown in Figure 4.3 below.** It is essential to consider the system that is used for data collection in the agricultural sector should also incorporate the planned and executed activities together with the level of resources allocated.

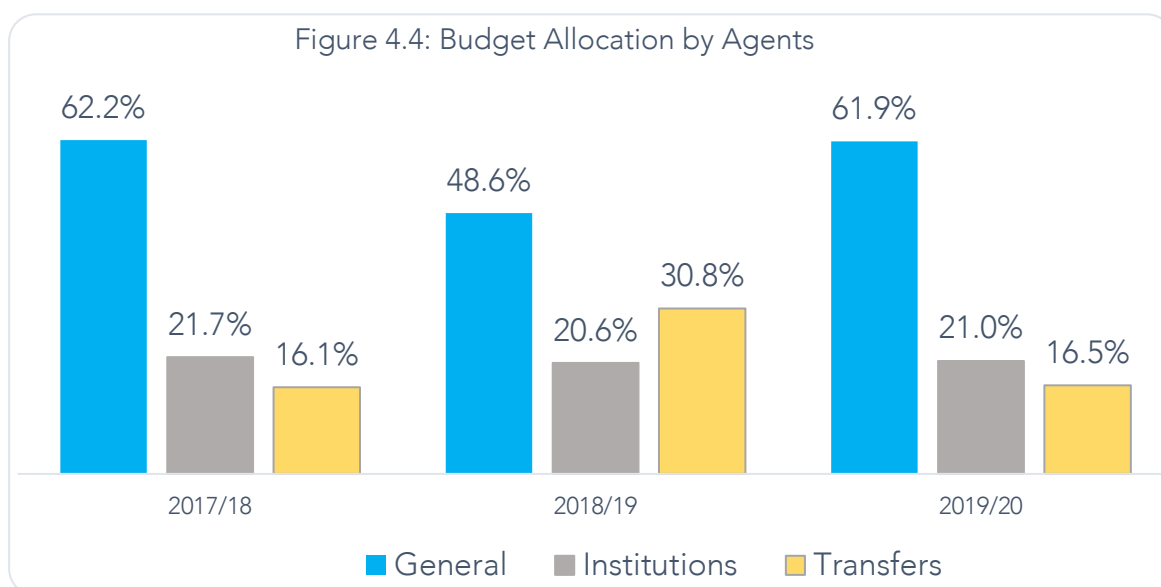


## 4.2 Categories Analysis

### 4.2.1 Categories Classification

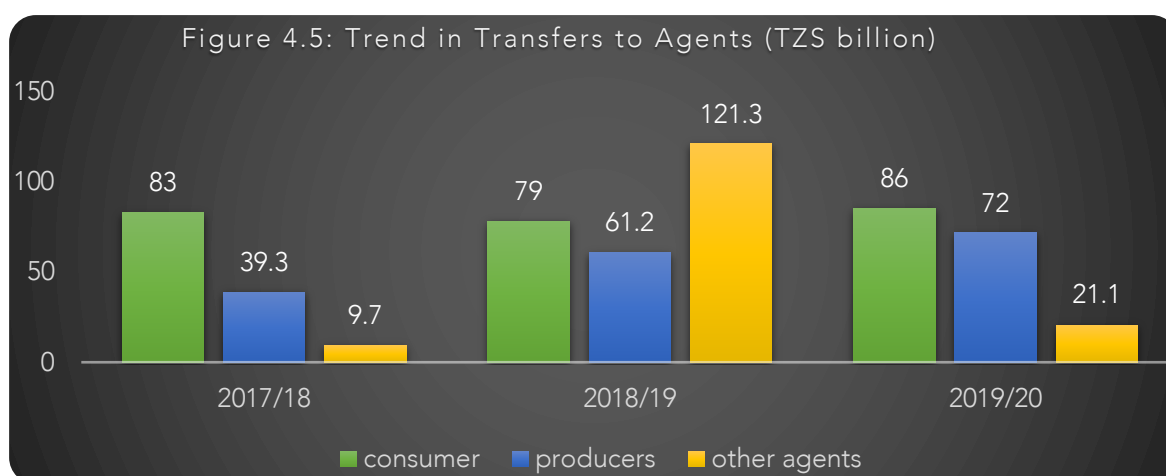
Based on the FAO-MAFAP methodology, the agricultural-specific expenditures are broken down into agents (who spent the money), categories (main expenditure items) and sub-categories (detailed items). At the agent level, there are three spending units, which are **transfers to agents** (private goods), **institutions** and **general support** (public goods). The analysis shows that over the three years, significant resources allocation in the agricultural sector were on institutions (administration costs) and general support (public goods and services).

The total budget allocations for three years were general support (57.7%), institutions (21.1%) and transfers to agents (21.2%). Budget allocations year-to-year are shown in **Figure 4.4** below, with no significant change in patterns among the three agents. Budget allocations on transfers to agents were small proportions to the other two but increased from FY 2018/19.



### Transfers to Agents

Transfers to agents are allocations towards private goods and services broken down into three main items, **transfers to producers** (farmers), **transfers to other agents** and **transfers to consumers** (trends shown in **Figure 4.5**). Expenditures on private goods consist mainly of transfers to agricultural producers (variable input subsidies, capital subsidies and other on-farm services) and consumers of food (food aid, cash transfers and school meals programmes). The former should support farmers and increase food production; the latter has the objective of improving people's access to food. Expenditures targeting other agents of the food and agricultural system, such as processors, traders or inputs suppliers, remain limited. For three years, transfers to agents were allocated 21.2% of the total allocations to the agricultural sector activities. The significant budgets that were mapped into transfers to agents, in this case, producers (farm support), include public institutions, the Agricultural Seeds Agency (ASA), the Tanzania Fishing Corporation (TAFICO), NFRA and others. TAFICO has been allocated significant resources to procure fishing boats in FYs 2018/19 and 2019/20 using national funds. However, it was reported later that the revival of TAFICO (collapsed in the 1990s) would be undertaken with support from the International Fund for Agricultural Development (IFAD)<sup>2</sup>.

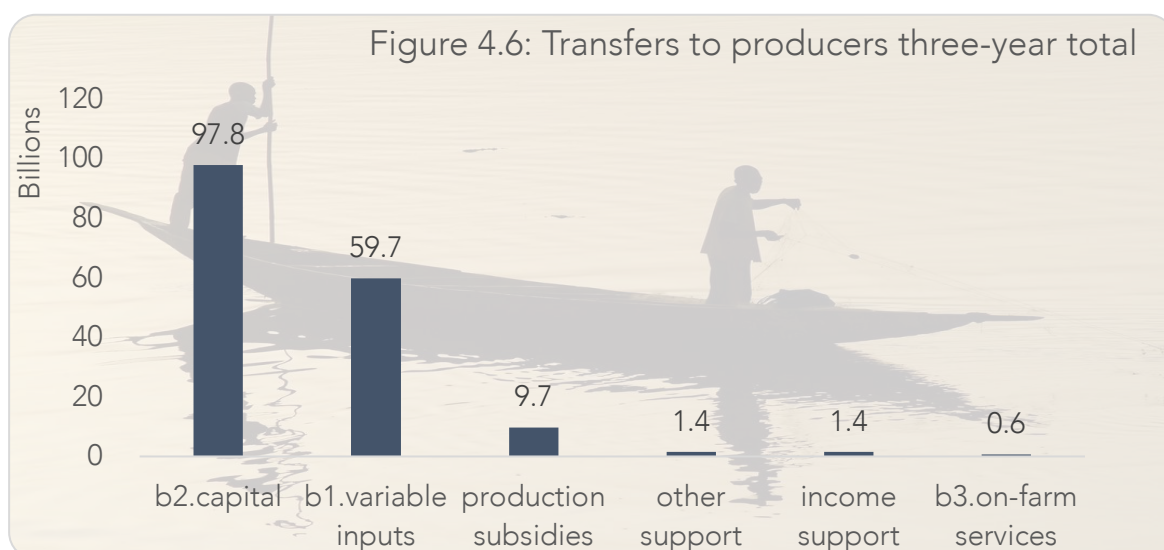


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<sup>2</sup> Daily News, 2 March 2021

The composition of transfers to agents showed that transfers to other agents (public institutions) accounted for about 24.8%, transfers to consumers 44.3% and transfers to producers 30.9%. Transfers to producers include all public money allocated to farmers as inputs, including raw materials, purchase of machines and support in farming and other production processes.

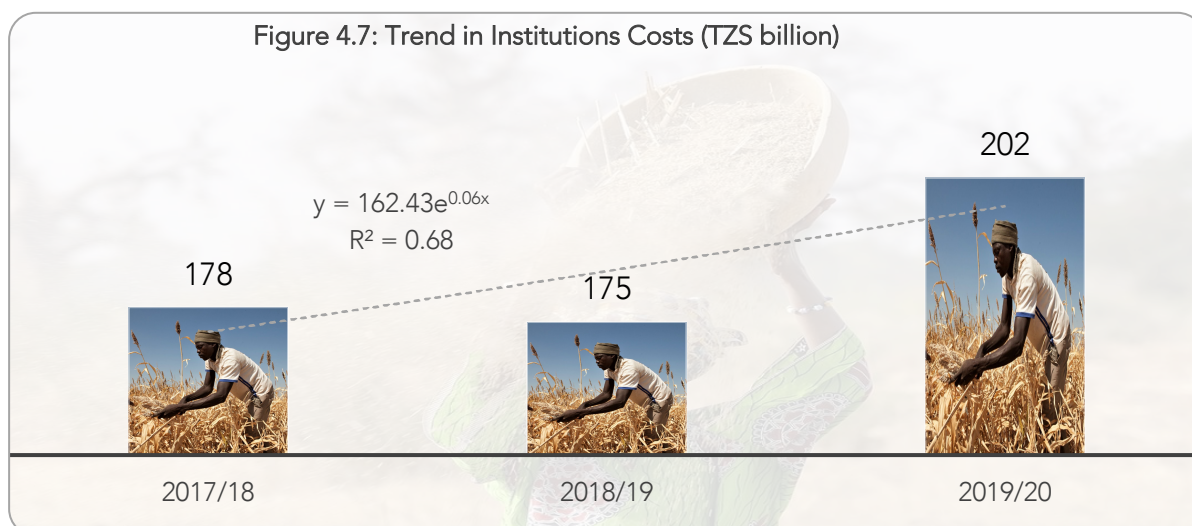
Transfers to farmers were mainly subsidies or support on farming inputs such as seeds, chemicals, purchase of capital items, farm infrastructures and others (see **Figure 4.6** below). It should be noted that there is no sector-wide subsidy program; hence, transfers are based on individual activities of LGAs and ministries. Transfers to producers also missed data on “cash transfers to farmers” in rural areas through Tanzania Social Action Fund (TASAF).



### Institutional Costs

The category of institutions under agent classification has only one subcategory, i.e., administration costs. Public agriculture expenditure on administrative costs captures mostly running costs of ministries and costs associated with departments that can be seen as an 'internal' investment (legal department, human resources, audit, etc.). Sometimes when discernible, running costs of decentralized offices are considered an administrative cost. During the review period, the allocations to institutions (administration costs) were TZS 555.3 billion, equivalent to 21.1% of total budget allocations to the sector. The administration costs include both personal emoluments (PEs), other charges (OCs) and development expenditures (DEV) that were allocated through activities that intend to build the internal operational capacity of these agencies.

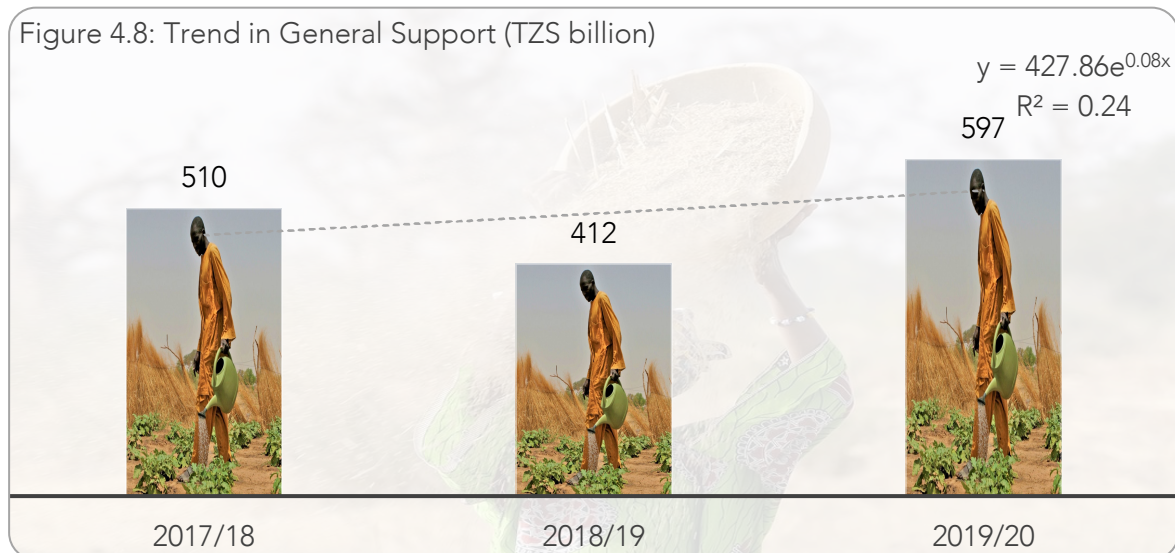
**Figure 4.7** below shows the trend of institutions' costs during the review period, i.e., FYs 2017/18 to 2019/20. The budget allocations to the institutions showed growth by a CAGR of 6% per annum. On the year-to-year, institutions' costs accounted for 21.7% in FY 2017/18, 20.6% in FY 2018/19 and 21% in FY 2019/20. Relative to two other agent categories, institutions have consistent allocations in all three years.



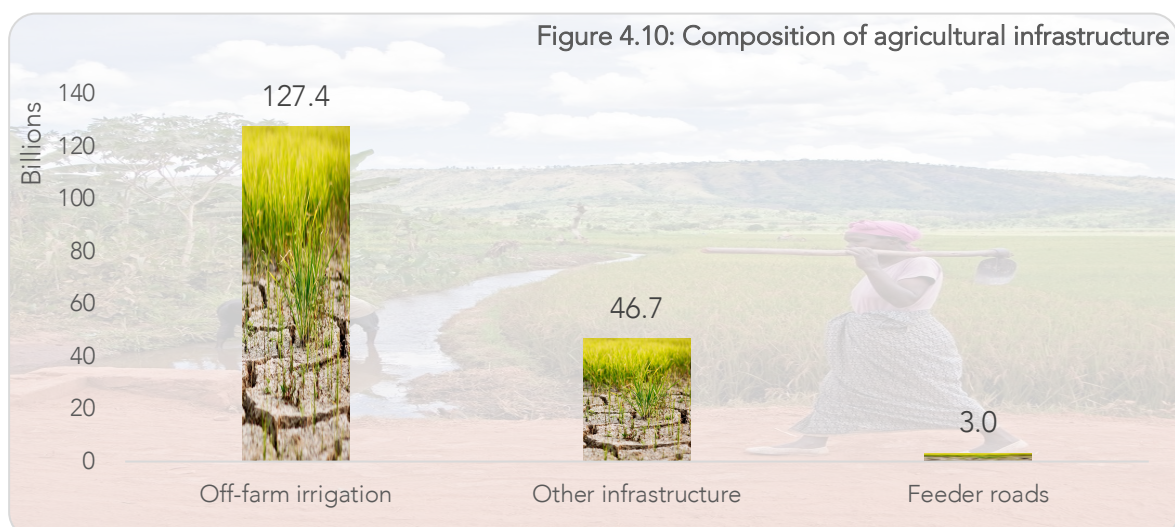
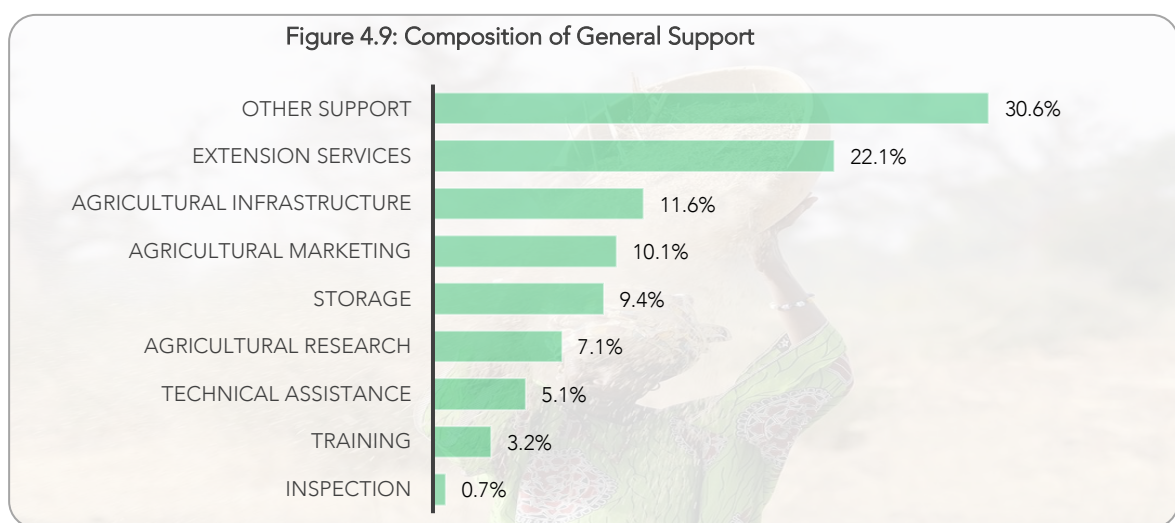


### General Support

General support expenditures benefit the sector rather than a specific agent, for example, through agricultural infrastructure, extension services, research or marketing. Since such public goods have relatively high returns in terms of productivity and poverty reduction, they generate more sustainable and broad-based impacts. The category of general support includes all activities and resources that were allocated towards public goods by the public expenditures in the agricultural sector. This category has several sub-categories underneath and includes core functions of the public agencies in the sector. The general support category has several sub-categories, which provide a breakdown of expenditures into specific agricultural activities under public goods expenditure. During the review period of three years, general support had a budget allocation of TZS 1,519.8 billion, which was equivalent to 57.7% of the total funding to the agricultural sector. However, the trend from FY 2017/18 to FY 2019/20 was not consistent, as shown in **Figure 4.8** below. During this period, the allocations to General Support had a growth CAGR of 8% per annum.



The top five sub-categories of general support, as shown in **Figure 4.9**, include other support (30.6%), extension services (22.1%), agricultural infrastructure (11.6%), agricultural marketing (10.1%), and storage (9.4%). Other general support categories, including agricultural research, technical assistance, training, and inspection, have a small share of budget allocations. **Figure 4.10** show the composition of the agricultural infrastructures for the total three-year period. The allocation to the general support is skewed by significant allocation to the Tanzania Forest Services Agency (TFSA) on forestry management.





## 4.2.2 Economic Classification

Budget lines allocation is also known as economic classification, in which resources allocated to the agricultural sector activities are identified and mapped to economic codes based on the Government Financial Statistics (GFS) codes. There are about nine categories of economic classification on the GFS used by the Government of Tanzania. Recently, there was a change in categories and grouping as the financial management system was upgraded by the Ministry of Finance and Planning.

Overall, over the review period, grant to public institutions was allocated a large share of agricultural resources in the budget at 34.7%, followed by compensation to employees at 26.7%, goods and services at 16.2%, and capital expenditures 10.1% (see **Figure 4.11**). However, the data collected showed that 10.3% of the total allocated resources in the agricultural sector were not classified by GFS. This is mainly because data from the Regional Secretariats (RSs) and Local Government Authorities (LGAs) were provided at the activities level without breakdown to budget lines. **Table 4.1** below shows the breakdown of the economic classification by sub-sectors.

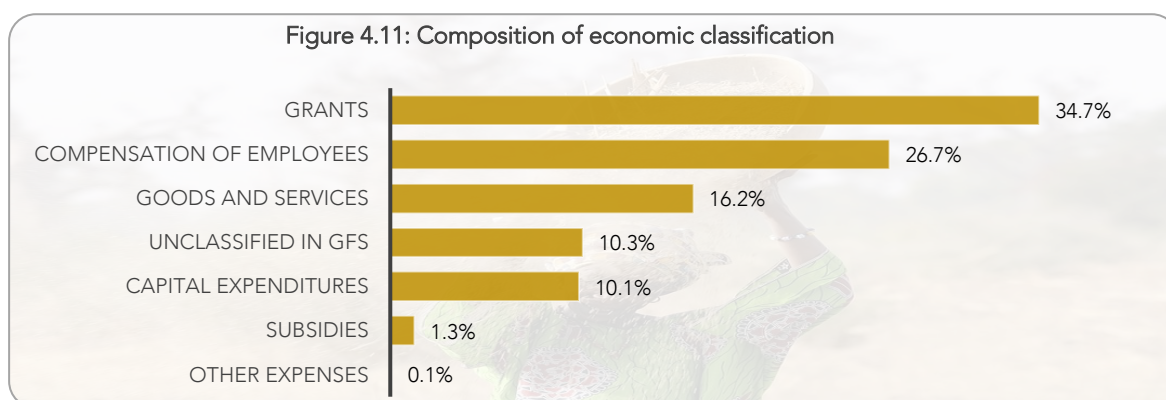
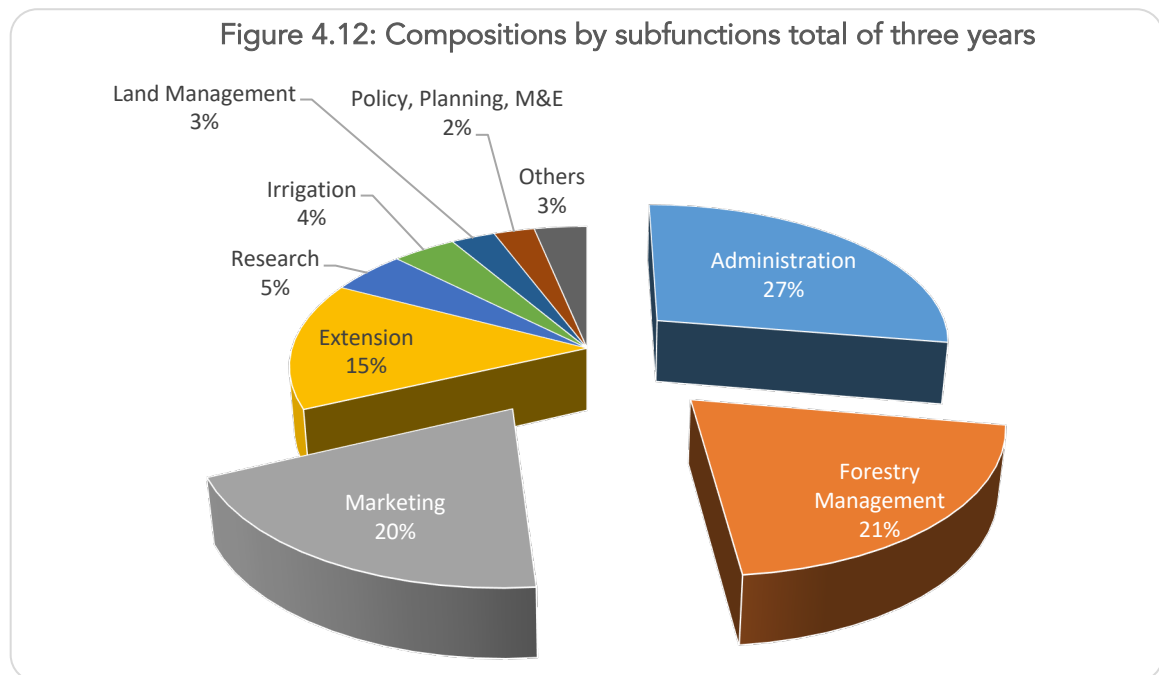


Table 4.1: Economic classification by sub-sectors

Economic Classification	Cooperatives	Crops	Cross-cutting	Fisheries	Forestry	Livestock
Compensation of Employees	65.7%	35.9%	7.6%	20.6%	0.1%	61.3%
Goods and Services	13.2%	23.5%	22.3%	12.9%	4.7%	7.6%
Unclassified in GFS	1.4%	15.1%	0.5%	7.4%	1.4%	25.2%
Capital Expenditure	0.9%	14.3%	1.4%	58.0%	0.0%	3.1%
Grants	18.8%	11.2%	59.6%	1.0%	93.8%	2.8%
Other Expenses	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%
Subsidies	0.0%	0.0%	8.2%	0.0%	0.0%	0.0%
<b>Grand Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

### 4.2.3 Sub-functions Classification

Based on the agricultural sector definition by COFOG+, the agricultural activities were mapped into sub-functions of the Government, as shown in **Figure 4.12**. Besides the common sub-functions, some additional sub-functions were added into the mapping and classification process, and these include **communication**, **inspection**, **statistics** and **training**.



The resources allocation analysis showed that the majority of the resources were allocated into the “**Administration**” subfunction that ranged between 25% and 29%, with an average of 27%. However, this has resulted in a skewed picture because most of the agricultural implementing agencies (ministries, commissions, regional secretariats and local authorities) provided their data in the high-level aggregate. For example, personal emoluments (PEs) mainly were aggregated into Administration Department rather than supplied in detailed subfunction departments. Despite aggregation of data, other subfunction emerged as receiving a considerable resources allocation over three years were forestry management (21%), marketing (20%), extension services (14%), agricultural research (5%), irrigation (4%), land management (3%), and policy, planning and M&E (2%). The trend in allocations over the three years is provided in **Table 4.2** below.

Table 4.2: Trends in allocations by agricultural subfunctions

Sub-function	2017	2018	2019
Administration	25.7%	28.8%	24.7%
Marketing	22.4%	17.5%	16.8%
Forestry Management	17.3%	21.5%	20.8%
Extension	15.6%	11.1%	15.2%
Research	5.0%	3.8%	4.9%
Irrigation	4.0%	2.8%	4.6%
Land management	3.4%	3.0%	1.6%
Farm support	1.9%	4.2%	6.4%
Training	1.9%	2.2%	1.2%
Policy, Planning & M&E	1.6%	3.2%	2.4%
Inspection	0.5%	0.7%	0.4%
Communication	0.3%	0.3%	0.5%
Regulations, Licensing	0.2%	0.5%	0.3%
Statistics	0.1%	0.4%	0.1%
Grand Total	100.0%	100.0%	100.0%

### 4.2.3 Commodities Allocation

Tanzania has several agricultural commodities that are produced in various parts of the country at different levels of effectiveness and efficiency. Some commodities were selected as critical for economic growth and poverty reduction. Besides these criteria, by applying criteria of possibility for commercialization, availability for technology for improving productivity and profitability, and possibility for scaling up and scaling out, the list of commodities that make up the priority list narrows down to a few. The ASDP II mapped these priority commodities by their production agro-ecological zones. There are six agro-ecological zones with a split of priority commodities into three categories of crops; livestock and fish; and cash crops. There is a clear link with the targeted number of households for the production of these commodities in each agro-ecological zone. PER results (Figure 4.13) showed that single commodities with significant resources allocation by activities were rice (24.5%), fish (13.4%), maize (9.4%), cashew (9.2%), oilseeds (7.3%), coffee (5.9%), horticulture (5.2%), tea (4.6%), and dairy products (4.1%).

Figure 4.13: Allocations based on commodities

Commodities	Allocation	% Allocation	chart
rice	12,976,059,096	24.5%	
fish	7,085,628,361	13.4%	
maize	4,986,344,240	9.4%	
cashew	4,864,691,159	9.2%	
oil seeds	3,859,031,398	7.3%	
coffee	3,151,220,713	5.9%	
horticulture	2,737,689,965	5.2%	
tea	2,444,370,178	4.6%	
dairy	2,164,882,754	4.1%	
cassava	1,362,971,142	2.6%	
poultry	1,340,150,506	2.5%	
cotton	1,072,912,423	2.0%	
tobacco	900,578,380	1.7%	
hides & skins	883,649,782	1.7%	
potatoes	876,205,740	1.7%	
sorghum	448,337,942	0.8%	
sisal	409,676,000	0.8%	
pyrethrum	359,058,400	0.7%	
banana	332,806,274	0.6%	
sugarcane	179,670,000	0.3%	
pulses	173,443,036	0.3%	
beef	142,909,537	0.3%	
sea weed	109,491,023	0.2%	
cocoa	108,588,500	0.2%	

### 4.3 Sub-sectors Analysis

Balance in public expenditures allocation among the agricultural subsectors is critical to ensure sustainable development and growth in the sector. The development and growth in the agricultural sector have a positive impact on the economy in general through a provision in food security, nutrition, foreign earnings on exports, employment, industrial raw materials and poverty alleviation to the rural population. This sub-section of the report provides public expenditures analysis by sub-sectors: crops, livestock, forestry (include beekeeping), fisheries, cooperatives, and cross-cutting. It should be noted that several activities were provided in aggregate and cut across more than one sub-sector; hence, skewing the presentation of the analysis results. For example, at local levels (LGAs), the data for compensation of employees, i.e., personal emoluments (PEs,) were provided at the departmental level, where each department has more than one sub-sector. Each LGA has two agricultural departments, namely, the Agriculture, Irrigation and Cooperative Department (AICD) and Livestock and Fisheries Department (LFD).

#### 4.3.1 Sub-sectors Indicators

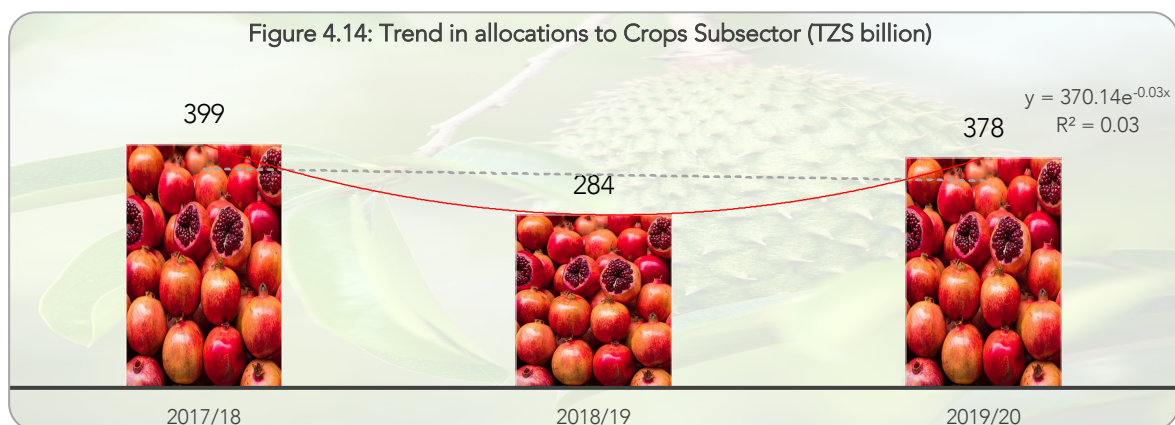
The analysis of the agricultural activities after the mapping showed that the majority of resources were allocated to crops, followed by forestry, cross-cutting, livestock, and fisheries. Cooperatives had the smallest share of resources allocation than the other sub-sectors (see Table 4.3).

Table 4.3: Indicators of budget allocations to the sub-sectors

Subsector	2017	2018	2019	Grand Total
Crops	48.7%	33.5%	39.1%	40.3%
Forestry	18.9%	23.3%	22.7%	21.7%
Cross-cutting	13.9%	17.8%	16.0%	15.9%
Livestock	15.2%	15.5%	13.9%	14.8%
Fisheries	2.5%	9.1%	7.6%	6.5%
Cooperatives	0.9%	0.7%	0.7%	0.8%
<b>Grand Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

### 4.3.2 Crop Sub-sector

The allocation to Crops sub-sector is mainly contributed by the Ministry of Agriculture (Vote 043) and 184 LGAs (Agriculture, Irrigations and Cooperatives Departments) at the local level. Two institutions are part of the MoA though they have their separate budget votes. These are the National Irrigation Commission (Vote 005) and the Cooperatives Development Commission (Vote 024). However, for the PER analysis, the data for Cooperatives Commission were separated from the crops sub-sector and identified as “Cooperatives sub-sector”. **Crops subsector received the largest share of agriculture sector budget allocations between FYs 2017/18 and 2019/20, with TZS 1.061 trillion equivalent to 40% of the sector budget.** However, the trend shows fluctuating patterns with a decrease in 2018/19 and a slight increase in 2019/20. The overall budget allocation for the crops sub-sector declines with an average CAGR of -3% per annum on nominal terms.

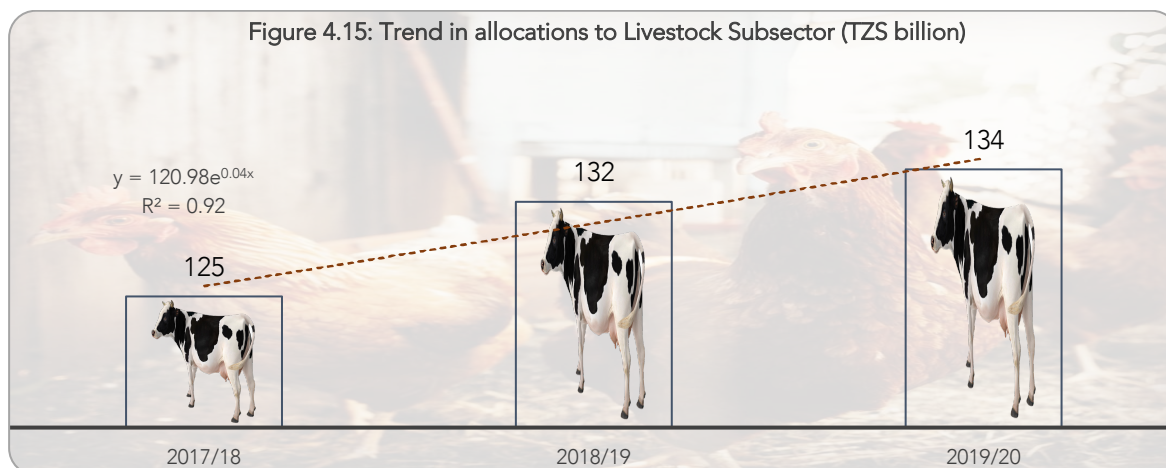


The budget allocations at the central level on crops sub-sector accounted at 34.4%. In contrast, it was 57.3% at the local level, making an average of 40.3% compared with other sub-sectors in the agricultural sector. The expenditures allocation to the crops sub-sector includes personal emoluments (PEs), other charges (OCs) and development expenditures (DEV) towards institutions and operational activities to the crops.

### 4.3.3 Livestock Sub-sector

The allocation to livestock sub-sector is mainly contributed by the Ministry of Livestock and Fisheries (Vote 099-Livestock) and 184 LGAs (Livestock and Fisheries Departments) at the local level. Livestock sub-sector and fisheries sub-sector share resources under one department at LGAs.

The livestock subsector received the second-largest share of agricultural sector budget allocations between FYs 2017/18 and 2019/20, with TZS 390.7 billion, equivalent to 15% of the sector budget allocations. The trend shows an increasing pattern from TZS 125 billion in FY 2017/18 to TZS 134 billion in FY 2019/20. The overall budget allocations to the livestock sub-sector increased with an exponential CAGR of 4% per annum on nominal terms.



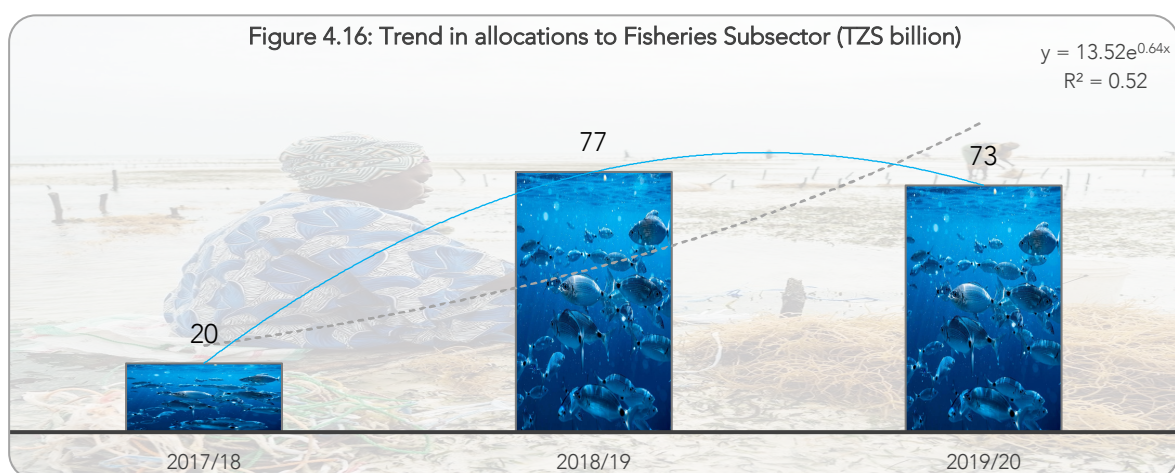
The budget allocations at the central level to the livestock sub-sector accounted for 5.9%, while at the local level, it was 40.8%, making an average of 14.8% when compared with other sub-sectors in agriculture. The budget allocations to the livestock sub-sector include personal emoluments (PEs), other charges (OCs) and development expenditures (DEV) towards institutions and operational activities to the livestock.



#### 4.3.4 Fisheries Sub-sector

The allocation to the fisheries sub-sector (include **aquaculture**) is mainly contributed by the Ministry of Livestock and Fisheries (Vote 064-Fisheries) and 184 LGAs (Livestock and Fisheries Departments) at the local level. Fisheries sub-sector and Livestock sub-sector share resources under one department at LGAs.

The fisheries subsector received the fourth largest share of agriculture sector budget allocations between FYs 2017/18 and 2019/20, with a total of TZS 170.3 billion, equivalent to 6.5% of the sector budget. However, the trend shows a skewed pattern with a significant increase in 2018/19, followed by a slight decrease in 2019/20. The overall budget allocations to the fisheries sub-sector grew by a CAGR of 64% per annum on nominal terms. The significant increase in share was because of transfers to agents, i.e., the revival of the TAFICO in FYs 2018/19 and 2019/20.



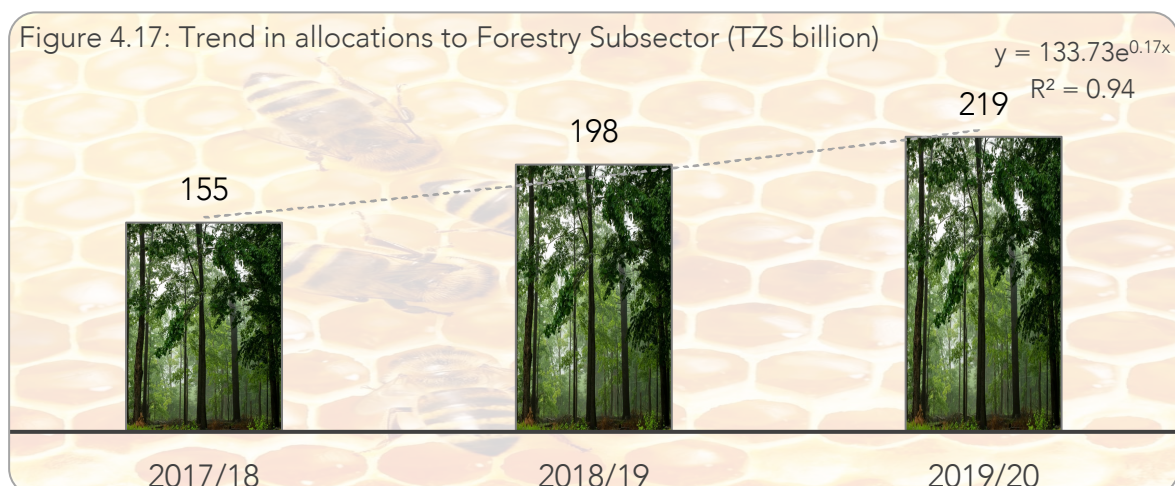
The budget allocations at the central level on fisheries sub-sector accounted at 8.1%. In contrast, it was 1.9% at the local level, making an average of 6.5% compared with other sub-sectors in agriculture. The budget allocations to the fisheries sub-sector include personal emoluments (PEs), other charges (OCs) and development expenditures (DEV) towards institutions and operational activities to the fisheries.



#### 4.3.5 Forestry and Beekeeping Sub-sector

Forestry, including beekeeping (**apiculture**), is a sub-sector of the agricultural sector. Forests play a major role in sustainable agricultural development through a host of channels, including the water cycle, soil conservation, carbon sequestration, natural pest control, influencing local climates and providing habitat protection for pollinators and other species. Forests are an integral part of the national agriculture policy to protect arable land from erosion and increase agricultural production. The levels and composition of budget allocations and actual expenditures have a significant impact not only on the forestry subsector but on the agricultural sector in general.

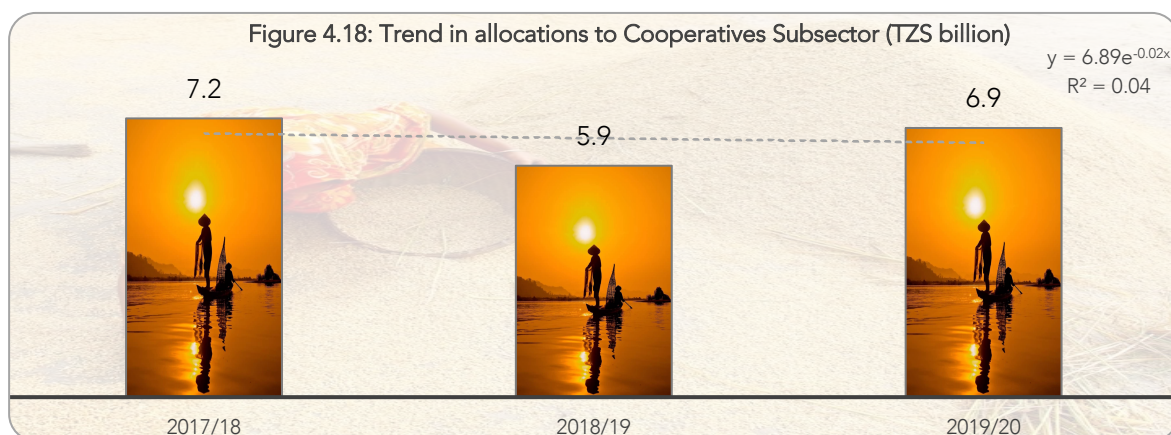
The forestry sub-sector is the second-highest sub-sector in budget allocations over the review period of three years. It budgeted TZS 571.8 billion, equivalent to 22% of the total sector budget allocation (Figure 4.17). The majority of its budget allocations were at the central level. The trend shows an increasing pattern from TZS 155 billion in FY 2017/18 to TZS 219 billion in FY 2019/20. The overall budget allocation to the forestry sub-sector grew with an average CAGR of 17% per annum on nominal terms. It should be noted that expenditures allocated to the forestry and beekeeping sub-sector come from Vote 69 (sub-vote 3001) and its institutions in research, training and services. The significant resource allocations were contributed by the Tanzania Forest Services Agency (TFSA).



#### 4.3.6 Cooperative Sub-sector

Cooperative functions are part of the Ministry of Agriculture, but it has a separate budget vote under the Cooperatives Development Commission with Vote 024. Also, cooperative activities cut across many economic sub-sectors; hence, its budget allocations in this PER have been treated as independent of the crops sub-sector. There are cooperative societies and functions across many sub-sectors, including crops, livestock, fisheries and forestry. Cooperative activities ranged throughout the agricultural sector value chains from production, processing and marketing.

Cooperative's sub-sector has least budget allocations among the agricultural sector, with TZS 20 billion over three years under review. The trend shows a fluctuating pattern with a decrease from TZS 7.2 billion in FY 2017/18 to TZS 5.9 billion in FY 2018/19, and a slight increase in 2019/20 of TZS 6.9 billion. The overall budget allocation to the cooperatives sub-sector is a decline with a negative CAGR of 2% per annum on nominal terms.

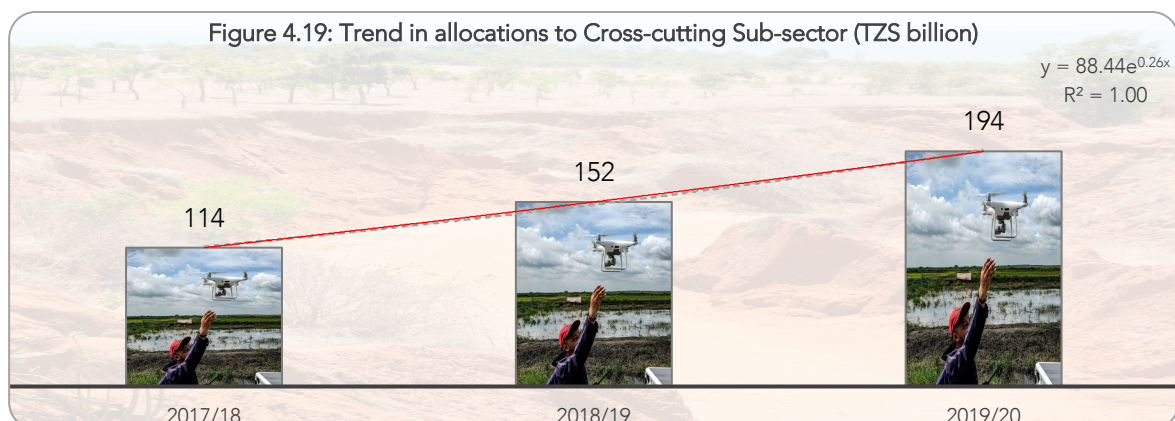


The budget allocation at the central level on the cooperatives sub-sector accounted for 1.0%, while at the local level, it was 0.1%, making an average of 0.7% when compared with other sub-sectors in the agricultural sector. **The Tanzania Cooperatives Development Commission (Vote 024) does not have the development expenditures budget, which means no development projects are implemented by the cooperatives sub-vote.**

#### 4.3.7 Cross-cutting Sub-sector

Agricultural is a multi-sector function that cut-across various economic activities contributing to the development and growth of this important sector in the economy. This final sub-sector is a catch it, whereby other economic functions and activities that support agriculture are presented and analysed in this PER. There are several functions included, but major ones are **land management, agricultural marketing** (including **agro-processing**), **ICT for agriculture, multi-purpose development projects, rural electrification for agriculture and others**. For example, the land is a crucial resource to the agricultural sector production activities. However, it should be noted that all the land available for cultivation is not only used for raising food crops but compete for other alternative uses in the economy. Therefore, adopting sustainable land management will maximise the economic and social benefits from the land while supporting development and growth in the agricultural sector. Similarly, the agricultural sector without marketing and agro-processing will lack incentives and motives to develop beyond local food production for societies.

The cross-cutting subsector is the third-largest subsector with the most budget allocations after the crops and livestock. **Budget allocation to the cross-cutting subsector was TZS 419.6 billion, equivalent to 16% of the sector budget allocation.** The trend shows an increasing pattern from TZS 113.7 billion in FY 2017/18 to TZS 154.5 billion in FY 2019/20. **The overall budget allocation to the cross-cutting sub-sector increased significantly with a CAGR of 26% per annum on nominal terms.**



























## 4.4 Aid Additionality

Development partners support in the agricultural sector has been part of its planning process with subsequent budget allocations and expenditures from year to year. Development partners support in the agricultural sector comes through on-budget (loans or grants) and off-budget as direct expenditures to targeted agriculture projects and activities in the country. Aid additionality refers to the development partners support to the agriculture sector that has been captured in the Government budget process. The off-budget support is covered separately in sub-section 4.5 of this report.

### 4.4.1 Indicators by Sub-sectors

Sector-wise, most of the donor funding was allocated in the crops sub-sector, followed by forestry and cross-cutting activities. Livestock and fisheries sub-sectors have minor proportions of their budget allocations to be funded by the development partners. During the three years, on average, crops accounted for about 66.5% of total donor allocations, followed by forestry 17% and cross-cutting 11%. Fisheries and livestock subsectors had 3.3% and 2.2,% respectively.

Table 4.4: Donors Allocation Indicators by sub-sectors

Subsector	2017	2018	2019	Grand Total
Crops	 61.6%	 52.5%	 76.7%	 66.5%
Forestry	 15.4%	 20.3%	 16.0%	 17.0%
Cross-cutting	 17.0%	 15.9%	 5.3%	 11.0%
Fisheries	 5.4%	 3.7%	 1.9%	 3.3%
Livestock	 0.5%	 7.6%	 0.1%	 2.2%
Cooperatives	0.0%	0.0%	0.0%	0.0%
<b>Grand Total</b>	 <b>100.0%</b>	 <b>100.0%</b>	 <b>100.0%</b>	 <b>100.0%</b>

#### 4.4.2 Indicators by Agents

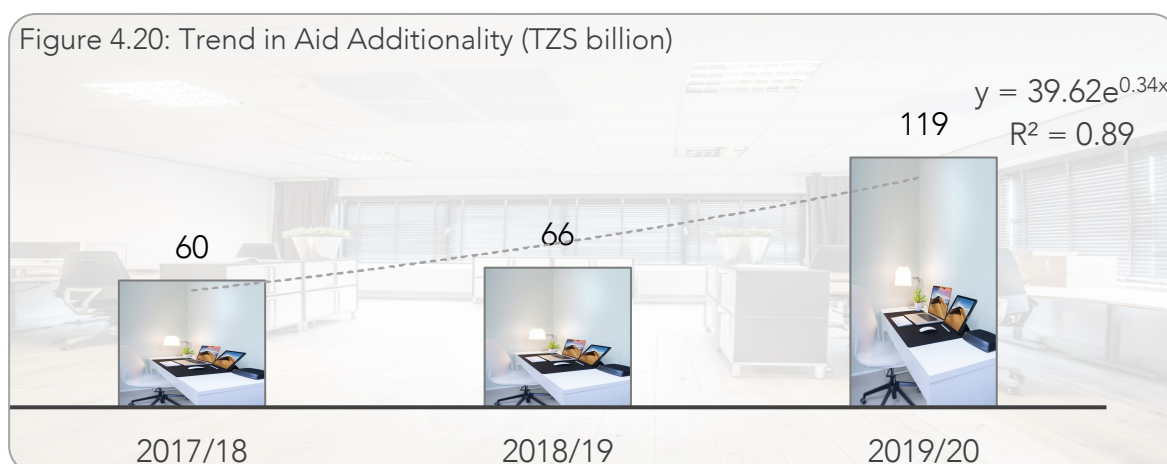
Aid additionality was significant in general support and institutions, while very little was allocated under transfers to agents. During the three years, on average public support accounted for about 85% of total donor allocations, followed by institutions 11.4% and transfers to agents 3.6%.

Table 4.5: Donors' allocation indicators by agents

Agent	2017	2018	2019
General support	84.1%	84.4%	85.8%
Institutions	8.6%	10.2%	13.5%
Transfers to agents	7.3%	5.5%	0.7%
Grand Total	100.0%	100.0%	100.0%

#### 4.4.3 Trend in Aid Additionality

The analysis on agricultural budget allocation over a three-year review period showed a remarkable increase in on-budget resources allocation from the development partners. The on-budget resources extracted from the planned agricultural activities showed an increase from TZS 60 billion in FY 2017/18 to TZS 119 billion in FY 2019/20, an equivalent to growth by a CAGR of 34% per annum. Comparison with total budget allocation in the agricultural sector, the proportions were 7% (2017/18), 8% (2018/19) and 11% (2019/20). Comparison with the total development budget showed an increase in proportions from 16% in FY 2017/18 to 24% in FY 2019/20.





## 4.5 Development Partners' Support

This sub-section presents main findings emerging from a review of budget allocation provided by the development partners to various project activities related to ASDP II. There are two categories of development partners, those contributing towards the budget (on-budget) and those funding projects outside the budget framework (off-budget). Both off-budget and on-budget are discussed in this section. The sub-section provides a brief background, followed by an analysis of the level of allocation in each component. It also examines the geographical locations of the projects started by development partners. This analysis facilitates the establishment of geographical areas of preference to development partners in projects allocation.

### 4.5.1 *Background*

Overseas Development Assistance (ODA) in Tanzania is guided by Joint Assistance Strategy (JAST) as an overarching framework. JAST promotes harmonized support from each development partner interested in contributing towards economic growth and poverty reduction within Tanzania. The agricultural sector is one of the sectors that attract the help of development partners. ASDP II provides areas for collaboration between the Government, development Partners work and private sector towards realising the intended long-term goal.

Preparation of the ASDP II was participatory, and it established the overall budget for implementing each activity in every component. Development Partners committed themselves to provide financial support for the implementation of various activities consistent with the programme. DPs support is intended to complement public and private efforts. Mindful of their commitment, development partners have been providing technical and financial support in undertaking various activities related to ASDP II. List of the development partners that have been traditionally supporting the sector includes; World Bank, Food and Agriculture Organization (FAO), United National Development Programme (UNDP), International Fund for Agricultural Development (IFAD), World Food Programme (WFP), AGRA, Irish Aid, Japanese International Cooperation (JICA), Bill and Melinda Gates Foundation, African Development Bank, Swiss Development Cooperation and Belgium Technical Cooperation (BTC). Most of the development

partners have organized themselves into a group known as the Agricultural Working Group (AWG). This platform is comprised of bilateral and multilateral institutions, regional and international organizations supporting the agricultural development within the country. The idea of forming AWG is to reduce transaction costs of engaging the Government and each DP separately. Promotion of well-coordinated policy dialogue and ensuring consistency in development assistance to the agricultural sector is among the hallmark of the AWG. They have established a system for data sharing pertaining to their activities to support the agriculture sector.

#### **4.5.2      *Budget Data***

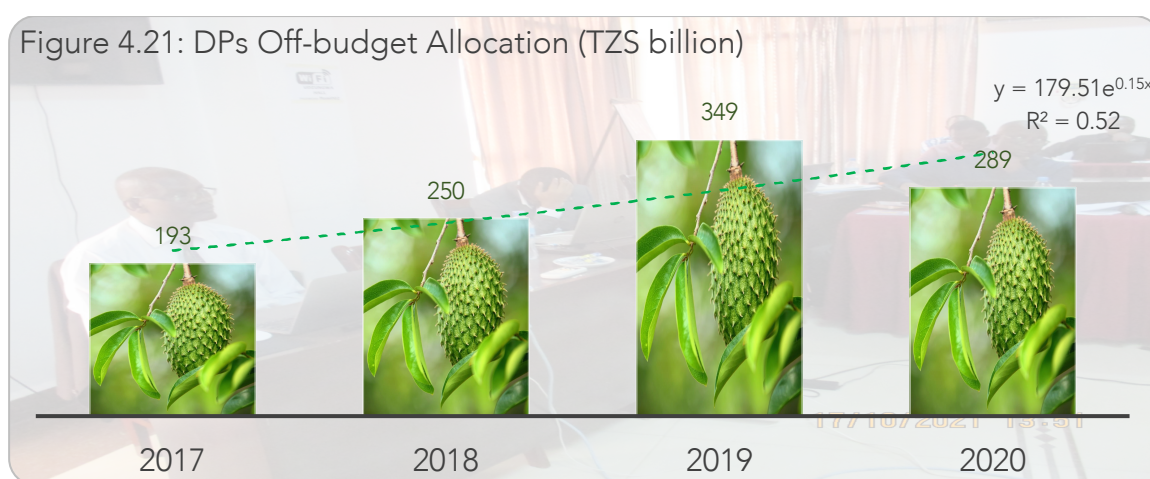
The analytical result provided hereunder is based on the data received from the Coordination unit as well as those from the development partners. Data covering the year 2019 to 2020 were obtained from the ASDP II National Coordination Unit (NCU) while, data used for the year 2017 to 2018 was received from the AWG platform. Information regarding overseas development assistance is shared during the project implementation stage and is usually reported biannually and or annually.

This information is reported based on a calendar year thus should be carefully treated when added with the Government budget reported in a fiscal year. Data quality is yet another aspect to ponder. Some of the excel sheets received contained zero amount of funds with a detailed description of what the project is all about. Some projects have an exceptionally high budget allocation that cast doubt on validity. There is an excellent chance for projects to be reported twice or more. This may happen if, say, a development partner has provided funding to multiple organizations undertaking specific projects that collectively fall under one central programme. If all these institutions submit details of the project to the Government, they may end up budging the project cost beyond the actual level. The risk of having different information on budget allocation reported by the development partners and what is captured by the Government will arise. Quality data is vital as it reflects what is happening in the sector and facilitates the formulation of effective policy. Thus, efforts should be taken to build up a robust system for data capture. Basket funding that was operating alongside project financing during the implementation of the ASDP I is currently nonexistent. Project

earmarking has remained the only modality for financing the agricultural sector by the development partners.

#### 4.5.3 Development Partners Budget Allocation

The total amount of budget allocated by the development partner is further analyzed by considering the level on a yearly basis. **Figure 4.21** below summarises the amount of funding allocated over the years starting from the year 2017 to 2020. The lowest amount of budget allocation is noticeable in the year 2017. During this year, projects worth TZS 192.5 billion were started in various developmental activities within the agricultural sector. ASDP II was launched in the year 2017; probably some development partners needed time to internalize the programme and reflect it within their budget before they could start to support it.



From the year 2017, the amounts of budget allocated show an increasing trend, whereas, in the year 2018, TZS 250.3 billion worth of projects were committed by the development partners. The highest amount of budget was allocated in the year 2019, in which a sum of TZS 349.1 billion was committed. This constitutes 5% of the overall support required from the development partners and 32% of the total budget allocation from the year 2017 to 2020. The amount of budget allocation decreases in the subsequent year 2020 to 289.4 showing a difference of TZS 59.7 billion with what was allocated in the preceding year.

**Table 4.6** below shows 19 development partners are supporting agricultural development in Tanzania through on and off-budget. The list of these partners is



by shared data matrix from both the NCU and AWG. As it appears on the table, these partners have arranged themselves in the four components of the ASDP II in accordance with their policy priorities. Component one has the least number of development partners (seven), while component two show 15 partners, component three has 19 partners, and component four has 12 of them.

Table 4.6: List of Development Partners Supporting Agriculture Development

S/No	Component One: Sustainable Water and Land Use Management	Component Two: Enhanced Agricultural Productivity and Profitability	Component Three: Commercialization and Value Addition	Component Four: Sector Enablers, Coordination and Monitoring & Evaluation
1	AFDB	France	Belgium	AFDB
2	FAO	Belgium	DANIDA	Belgium
3	French -AFD	Swiss Agency	France	DANIDA
4	Global Affairs- Canada	Netherlands	Swiss Agency	USAID
5	SIDA	EU	Netherlands	Swiss Agency
6	USAID	FAO	EU	Netherlands
7	World Bank	French -AFD	FAO	EU
8		Global Affairs- Canada	French -AFD	FAO
9		Irish Aid	Global Affairs- Canada	French -AFD
10		Norwegian Embassy	Irish Aid	Global Affairs- Canada
11		Poland	JICA	Irish Aid
12		SIDA	NORAD	JICA
13		USAID	Irish Aid	
14		WFP	Norwegian Embassy	
15		World Bank	SIDA	
16			UNIDO	
17			USAID	
18			WFP	
19			World Bank	

Source: AWG data (2021)

#### 4.5.4 Budget Allocation to ASDP II Components

Further analysis on budget allocation by the development partners is done to reveal the exact amount channelled to each component.

Table 4.7: Expected Contribution from the Development Partners as per ASDP II

ASDP II Component	Expected Contribution for ASDP II Implementation (TZS billion)		Total (TZS billion)
	On Budget	Off Budget	
Sustainable Water and Land Use Management	1,205	316.732	1521.74
Enhanced Agricultural productivity	2,369	1212.225	3,581
Commercialization and Value addition	1,420	780	2,200
Strengthening Sector Enablers	32.278	33.775	66

Source: URT (2017)

ASDP II document prescribes that a sum of TZS 1,521.74 billion will be supported by the development partners (on and off-budget) for various activities. The budget estimates for this component constitutes 21% of the entire budget support requested from the development partners for the whole programme. Specifically, 80% (TZS 1,205 billion) of the budget for component one was intended to be on-budget and 20% (TZS 316.732 billion) off-budget.

Table 4.8: Contribution made by the Development Partners to ASDP II (TZS billion)

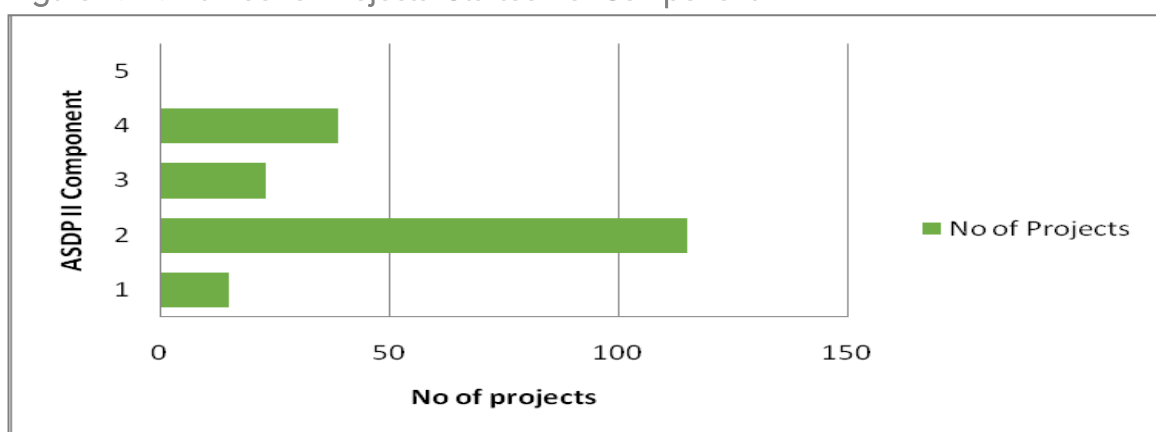
Component	2017	2018	2019	2020	Total
Sustainable Water and Land Use Management	12.1	16.0	13.0	20.0	61.2
Enhanced Agricultural productivity	67.1	111.8	207.7	78.4	465.0
Commercialization and Value addition	25.8	25.9	28.3	150.3	230.3
Strengthening Sector Enablers	87.6	96.5	100.0	40.7	324.7

Source: AWG data (2021)

#### 4.5.5 Number of Projects

Data on the number of projects in each component was established and presented in a graphical form, as shown below. Based on **Figure 4.22**, the highest number of development assistance projects was initiated under component two. This component touches on three main issues, namely, production and productivity, agricultural extension services as well as agricultural research and development. Comparatively, component one has the least number of projects. The number of projects may reflect the interest of the development partners to fund specific areas. Nevertheless, there is no relationship between the number of projects initiated and budget allocation.

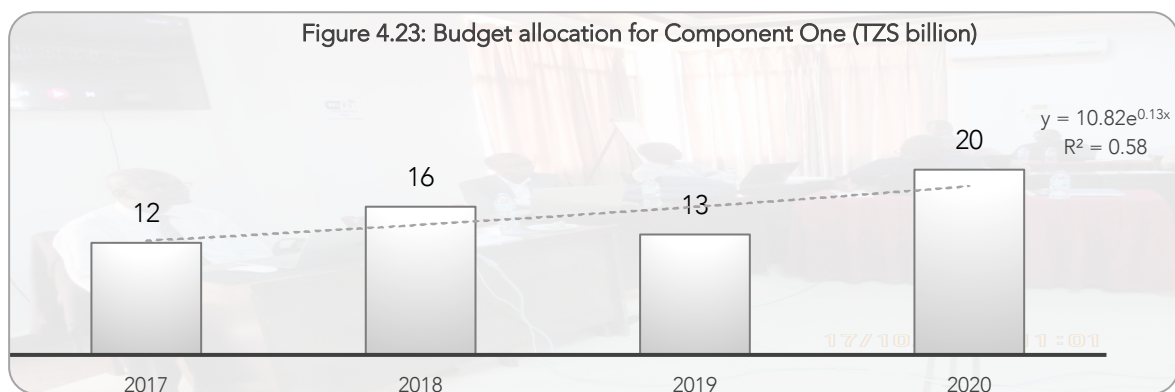
Figure 4.22: Number of Projects Started Per Component



Source: AWG data (2021)

## Component One

Available data suggest that a total of TZS 61.2 billion was allocated for activities related to component one (sustainable water and land use management). This component has three indicators on land use planning and watershed management, water for crops, livestock and fishery, as well as mainstreaming resilience for climate variability /change and natural disasters. The amount allocated constitutes 4% of the total budget estimates from the development partners for this component. This is too low, given the amount of support requested for component one. When this amount is disaggregated on a yearly basis, in the year 2017, TZS 12.1 billion was allocated, and it was the lowest amount. The amount of budget somehow increased from the year 2018 to TZS 16 billion. In the subsequent year 2019, the amount of funding allocated decreased to TZS 13 billion and year 2020, it increased to TZS 20 billion. One would observe that there is a positive relationship between the number of partners and the amount of budget allocated in this component.

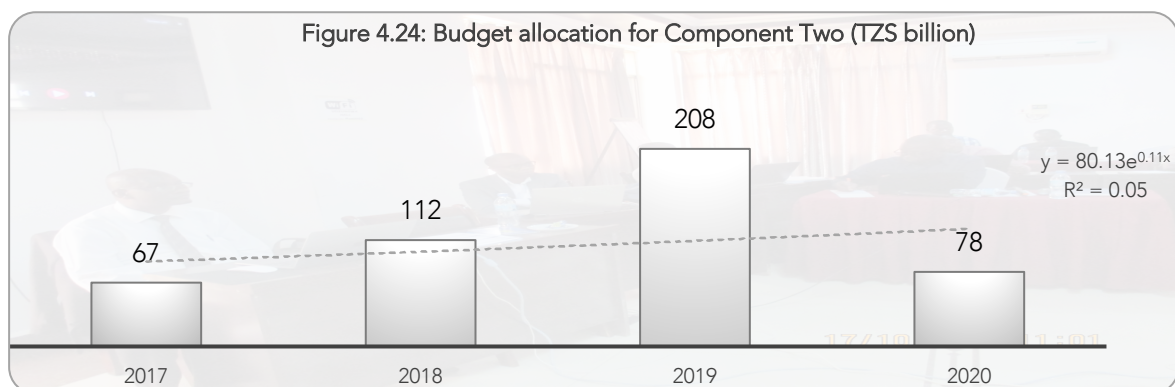


Source: AWG data (2021)

## Component Two

A sum of TZS 465 billion was allocated for the promotion of production and productivity starting from the year 2017 to the year 2020. This is against TZS 3,581 billion requested from the donor for component two. Thus, it's only 13% has been allocated for this component since the commencement of the ASDP II. In the year 2017, TZS 67.1 billion was given to finance various activities within this component. The amount shows an increasing trend as in the year 2018, TZS 111.8 billion was allocated, and it almost doubled in the subsequent year 2019 when a sum of TZS 207.7 billion was committed. Unfortunately, in the year 2020, the amount went down to TZS 78.4 billion.

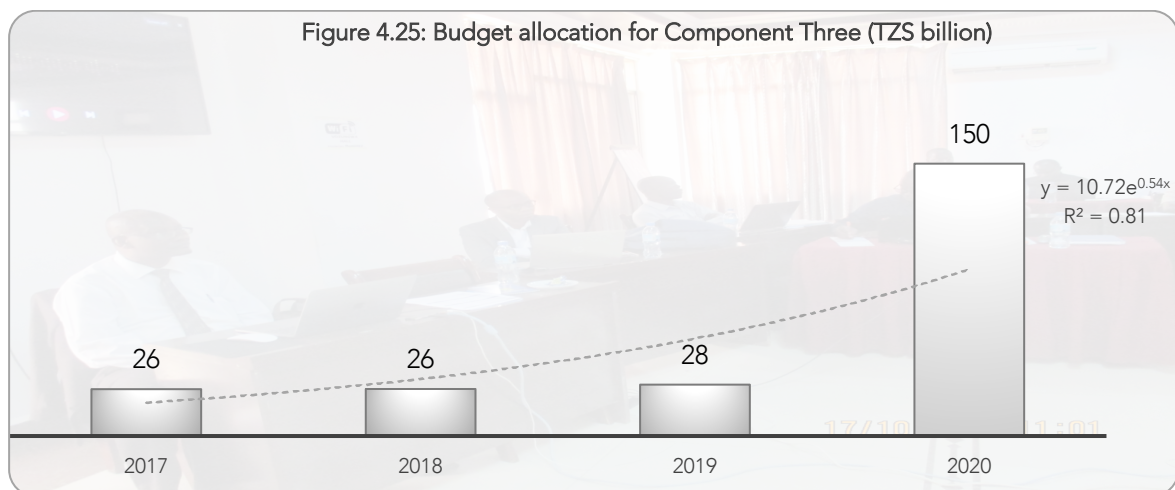
Disaggregation of the data suggests that the amount fluctuated yearly. The highest amount of funds was allocated in the year 2019 (TZS 207.7 billion), while the year 2017 saw the lowest amount of development partners' assistance, TZS 67.1 billion, was provided for various projects. Cumulatively, component two received the highest amount of all the components (TZS 465 billion).



Source: AWG data (2021)

### Component Three

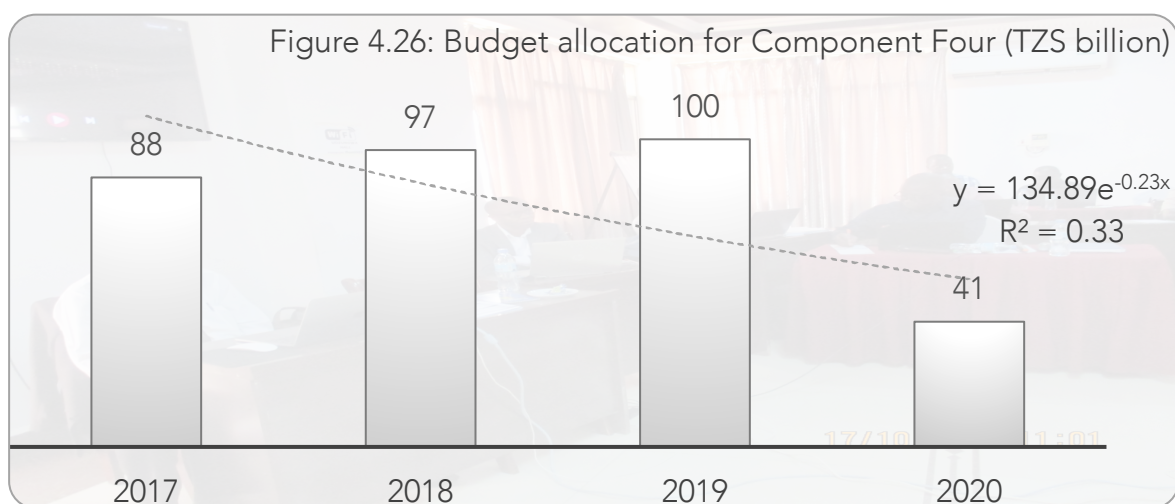
Implementation of component three about commercialization and value addition requested a sum of TZS 2,200 billion from the donors. Within this component, the programme seeks to attain twin objectives of enhancing a competitive commodity and value addition and access to markets and rural infrastructure. TZS 230.3 billion was provided to various projects in this component. The amount of budget allocated is 10.4% of the total budget support requested to implement the programme. Budget allocation is showing an increasing trend starting from the year 2017, in which TZS 25.3 billion was allocated up to TZS 150.3 billion in the year 2020.



Source: AWG data (2021)

## Component Four

Component four indicates rather a different picture, a sum of TZS 66 billion was supposed to come from the development partner. But data seems to suggest that already the sum of TZS 324.7 billion has been allocated to finance various activities. The amount provided makes up 492% of the financial support requested from the development partners. The observed wide discrepancy may be contributed by high preference by the donors to finance activities in this component, or probably there was a challenge in enlisting projects when reporting. Information asymmetry may be another factor that accounted for duplication of efforts. The amount of budget allocated for this component is showing an increasing trend starting from the year 2017, in which TZS 87.6 billion was allocated. Since then, the amount was increasing up to the year 2019 when it reached TZS100 billion. However, the amount subsided in the subsequent year 2020 when TZS 40.7 billion was provided.



Source: AWG data (2021)



#### **4.5.6**      *Specific Area of Support*

Further analysis of development assistance is done by considering sub-components. The study is based on data provided and reported by the ASDP II, the National Coordination Unit and the Agricultural Working Group.

##### **Crop Sub-sector**

ASDP II document targets a few crops for the development of their value chains. This list is composed of food and cash crops. Food crops refer to those produced for household consumption with surplus sold in the market in order to earn cash income. ASDP II list of food crops include; maize, rice, pulses, banana and cassava. Cash crops refer to crops that are grown primarily for the market in order to earn income. The document has listed; tobacco, horticulture, sugarcane, cashew, coffee, banana and oil crops.

**Table 4.9** below suggests that 30 projects were initiated by the development partners within the four components. Lack of detailed data precluded an analysis for each specific crop. Two projects were undertaken for component one, while component 2 and 3 has ten projects each. The last component, 4, has eight projects.

Table 4.9: Projects Started for Development of Crop Subsector

S/No	Component One	Component Two	Component Three	Component Four
1	WARIDI	Mboga na Matunda	Advancing Nutrition	Advancing Youth
2	TANCAID2	NAFAKA	AGRICONNECT	Advancing Nutrition
3		Support Towards Operationalization of the SADC Regional Agricultural Policy (STOSAR)	Alliance for Inclusive and Nutritious Food Processing (AINFP)	ASPIRES
4		Capacity Building in Agriculture	Matoborwa (Post Harvest Management Project)	ARDS Capacity Development
5		Boresha Lishe	Enhancing Competitiveness of Smallholder Rice Farmers in Morogoro	Global Framework for Climate Services
6		Value Chain Development	Rice Project	Rapid Response Implementation Support (RARIS)
7		Climate-Smart Agriculture (CSAP)	MARK-UP	Strengthening Coordination of ASDP II in Local Government Authority (SCALGA)
8		Chai Project	Agricultural Marketing Development Trust	Investing in New Ventures of Entrepreneurial Students in Tanzania
9		AgriConnect	Support Towards Operationalization of the SADC Regional Agricultural Policy (STOSAR)	
10		Post-Harvest Management and Marketing Project	Grain Post Harvest Loss Prevention Project	

Source: AWG data (2021)

## Livestock Sub-sector

The subsector is comprised of cattle, poultry, sheep, goat, pigs and other domesticated animals raised with a view to providing milk, beef, leather, eggs and so forth. Analysis shows ten projects initiated for livestock development. There is only one project under component one, and this is not exclusively targeting livestock development per se, but its intervention on the management of water resources will also benefit the livestock subsector. Most projects were developed within component two (eight projects), a suggestion that there is a high donors' interest for this component. There is no project that was designed for component three, and only one project addressed issues of component four.

Table 4.10: Projects Started for Development of Livestock Sub-sector

S/No	Component One	Component Two	Component Three	Component Four
1	WARIDI	Boresha Lishe		ASPIRES
2		Support Towards Operationalization of the SADC Regional Agricultural Policy (STOSAR)		
3		Development of Improved Semichemical Prototypes for controlling Tsetse fly		
4		Enabling Tsetse fly Elimination		
5		An integrated Approach to Tackling Drug Resistance in Livestock (TVLA)		
6		Strengthening Health and Biosecurity in Tanzania (LVLA)		
7		Assistance to LITA		
8		Advancing Nutrition		

Source: AWG data (2021)

### Fisheries Sub-sector

**Table 4.11** below shows only one project was initiated for fishery development from the years 2017 to 2020. This project was not exclusively targeting fishery per se; instead, it addressed water resources management issues, which somehow touches on aspects of the fishery subsector. A total of seven projects initiated have activities related to the fishery subsector. Projects with direct linkage with the fishery subsector include; SwioFish and Monitoring of fish on the outer layer of the water. Other projects such as; advancing nutrition Support towards Operationalisation of the SADC Regional Agricultural Policy (STOSAR) and Boresha Lishe. As suggested by the table above, there is no project initiated to address activities of components 3 and 4.

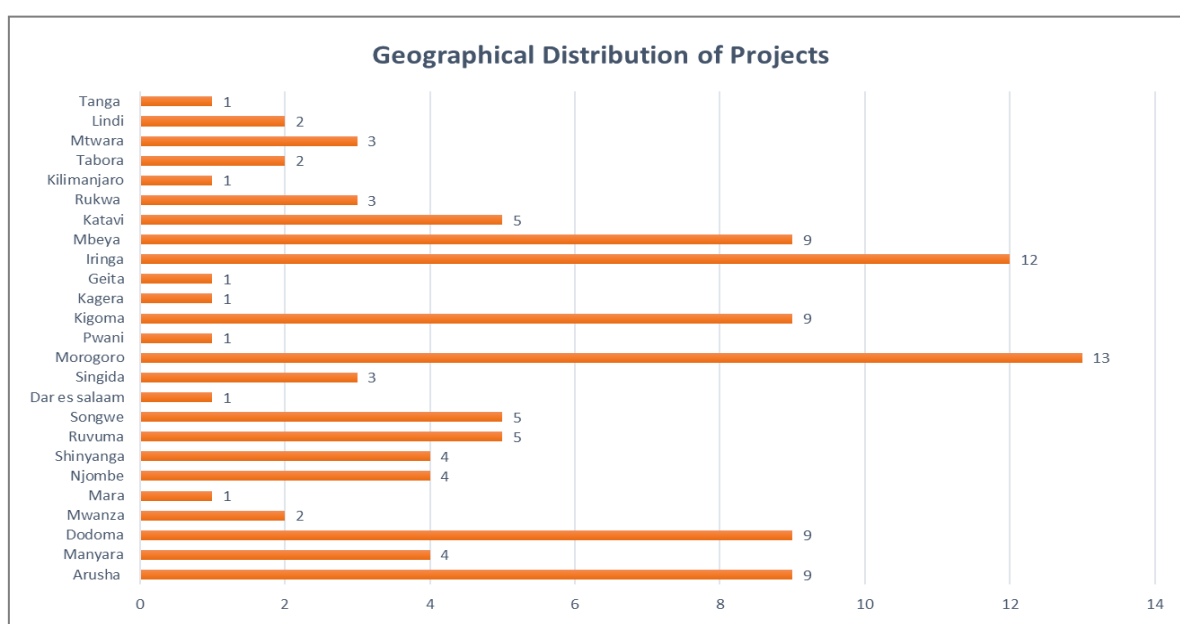
**Table 4.11: List of Projects for Fishery Development**

Component One	Component Two	Component Three	Component Four
Water Use for Crops, Livestock and Fishery	Production and Productivity		
9. WARIDI	10. Boresha Lishe		
	11. AGRICONNECT		
	12. Support Towards Operationalization of the SADC Regional Agricultural Policy (STOSAR)		
	13. SWioFish		
	14. Monitoring of fish on the outer layer of the water		
	15. Advancing Nutrition		

#### 4.5.7 Geographical Location of Projects

Even from the data matrix received, projects initiated were categorized as either national or regional. National Project refers to all types of interventions carried out at the national level, targeting everyone within the country. An example of such a project is an intervention targeting to improve the inputs delivery system across the country. Projects of this nature are classified under the national project category, and most of them were reported under components 3 and 4.

Figure 4.27: Geographical Distribution of Projects across the Country



Source: AWG data (2021)

Regional projects are those that are implemented in a particular geographical area, targeting a certain specific community. **Figure 4.27** above depicts a detailed summary of projects registered with corresponding names of those regions. A wide variation is observed in terms of the number of projects across regions. The lowest number of projects allocated per region is displayed by six (6) regions, namely; Tanga, Kilimanjaro, Geita, Kagera, Pwani and Mara. Morogoro region is leading in respect to the number of projects allocated. Such a deviation may probably be attributed to the fact that Morogoro is within the SAGCOT area that has traditionally enjoyed a high recognition and support of the development partners partly due to potentials embedded within the region.

## Relationship between Project Geographical Location and Poverty Status

Ideally, most agricultural projects are seeking to improve growth in household income, with an outcome of poverty reduction. Therefore, in addition to the analysis of the geographical distribution of projects provided above. There was a need to check whether these projects were considering the poverty status of a region when deciding on an area of location. In this respect, poverty incidence categories reported by the World Bank (2020) report on Tanzania were applied. **Table 4.12** below provides details on, name of a region, number of projects allocated and corresponding poverty incidence category.

**Table 4.12: Geographical Distribution of Projects and Poverty Status**

S/No	Region	Number of Project	Poverty Incidence category	% Number of Projects
1	Tanga	1	0.08-0.21	0.01
2	Lindi	2	0.36-0.45	0.02
3	Mtwara	3	0.26-0.31	0.03
4	Tabora	2	0.32-0.35	0.02
5	Kilimanjaro	1	0.08-0.21	0.01
6	Rukwa	3	0.36-0.45	0.03
7	Katavi	5	0.26-0.31	0.05
8	Mbeya	9	0.22-0.25	0.08
9	Iringa	12	0.22-0.25	0.11
10	Geita	1	0.36-0.45	0.01
11	Kagera	1	0.32-0.35	0.01
12	Kigoma	9	0.32-0.35	0.08
13	Pwani	1	0.26-0.31	0.01
14	Morogoro	13	0.08-0.21	0.12
15	Singida	3	0.32-0.35	0.03
16	Dar es salaam	1	0.08-0.21	0.01

S/No	Region	Number of Project	Poverty Incidence category	% Number of Projects
17	Songwe	5	0.22-0.25	0.05
18	Ruvuma	5	0.26-0.31	0.05
19	Shinyanga	4	0.32-0.35	0.04
20	Njombe	4	0.08-0.21	0.04
21	Mara	1	0.22-0.25	0.01
22	Mwanza	2	0.36-0.45	0.02
23	Dodoma	9	0.22-0.25	0.08
24	Manyara	4	0.26-0.31	0.04
25	Arusha	9	0.22-0.25	0.08

Source: Poverty Incidence Data extracted from the World Bank report (2020)

A summary of **Table 4.12** is depicted in **Figure 4.28** below, which shows different poverty incidence categories against the cumulative proportion of projects located. Based on Table 4.12 above and Figure 4.28 below, it is evident that regions with the highest level of poverty (0.36-0.45) received the least number of projects (7%). A high proportion of projects were allocated in regions with low poverty incidence. According to the figure, 41% of all the projects were given to characterised areas with a relatively low level of poverty incidence. A region such as Kilimanjaro, Njombe, and Tanga with the lowest level of poverty incidence enjoyed 18% of all projects by development partners. This analysis is not sufficient to draw a conclusion that fewer projects were initiated in the poorest region since there is no consideration of the value of each project.



Figure 4.28: Projects Allocated Vs Poverty Incidence<sup>3</sup>



Source: World Bank (2020) and AWG data (2021)

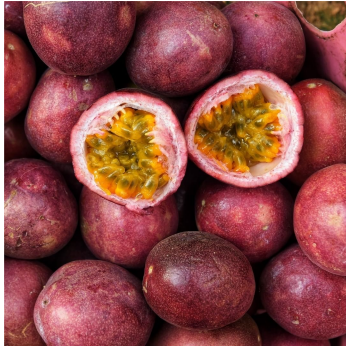
Besides, the Government-funded initiatives developed in various regions may be a factor considered by the development partners in deciding over where to allocate projects. In light of an existing opacity, it is difficult to conclude whether projects initiated by the development partners are not targeting the poor. Nevertheless, though the current financing modality (project earmarking) may continue, it should be complemented with a system in which the development partners engage collectively with the Government and establish a plan for sharing information throughout from project planning, implementation, and monitoring and evaluation. Such a system will help ensure complementarity between the Government development initiatives and projects initiated by the development partners. It will also eliminate possibilities of duplication of efforts and hence improve aid effectiveness.

<sup>3</sup> Poverty incidence class: 0.08 means low incidence and 0.45 means high incidence level.

# 5

## QUALITIES OF PUBLIC EXPENDITURES

Various researches have pointed out that the transformation of Africa's agriculture



and food systems are held back by several qualitative factors besides the level of investment in the sector per se. These factors include climate change, water scarcity, land degradation, food loss, limited access to finance and lack of adequate investment in agricultural technology.

Therefore, besides understanding the quantum of investment in terms of share of the agricultural sector resources allocation from the national budget and total actual expenditures, the how and where the money is spent is critical in PER studies. In this section of the report, the vital areas on the qualitative aspect are highlighted that include funding gaps, execution levels; returns on expenditures; climate-smart agriculture; and rural development expenditures. **Data for analysing budget gaps and execution rates were obtained from the agricultural ministries and institutions using a template that captured aggregate spending in three variables: approved budget, released funds, and actual expenditures.** It should be noted that the template for aggregate data was not used for individual Regional Secretariats and Local Government Authorities (LGAs) due to the time constraint of the PER.

### 5.1 Funding Gaps









































There is a significant relationship between agricultural sector growth and the intensity of public expenditures. A review of the national policies shows that there is high political commitment to uphold the development and growth of the agricultural sector. However, the implementation of the planned activities painted a different picture of the aspirations. On the side of the performance, there are two related issues, first is the actual resources that are released by the Government to the implementing agents. The difference between what has been committed to be provided to the sector on the budget allocation and what was received is termed

as a “funding gap”. Inaccurate revenue forecasts could contribute to the observed funding gap. In the United Republic of Tanzania, for example, revenue forecasts were consistently higher than the actual revenue for the years between 2007/08–2011/12, and the shortfall in revenues exceeded 10% in two out of five years (Simson and Welham, 2014). The revenue shortfall often means

that the funds will not even reach ministries involved because of liquidity issues or funds are released with delays.

The second part is the difference between the actual funds released and the exact amount that was spent, whereby the difference is termed as the “execution gap”. This sub-section covers the first part, namely the funding gap. Because of the challenges of obtaining detailed sector actual expenditures, the assessment of funding gaps was done at an aggregate level of core agricultural ministries that provided the data. There are significant funding gaps in the sector, as shown in **Table 5.1**. Public implementing agents in the agriculture sector reported a high level of funding gaps between what has been estimated as resources required versus what has been received. The overall funding gap was 43%, while high funding gaps were reported in irrigation (60%), agriculture (48%), fisheries (41%), livestock (19%) and forestry and beekeeping (20%).

Table 5.1: Total budget allocations funded

Vote	Title	2017	2018	2019	Total
003	National Land Use Planning Commission	 88%	 52%	 33%	 50%
005	National Irrigation Commission	 40%	 51%	 30%	 40%
024	Tanzania Cooperative Development Commission	 64%	 82%	 87%	 77%
043	Ministry of Agriculture	 44%	 66%	 48%	 52%
048	Ministry of Lands (subvote 2001)	 55%	 80%	 56%	 63%
064	Ministry of Livestock Development and Fisheries - F	 23%	 79%	 73%	 59%
069	Ministry of Natural Resources and Tourism (subvote 3	 193%	 17%	 61%	 80%
099	Ministry of Livestock Development and Fisheries - L	 88%	 69%	 92%	 81%
052	Tanzania Food and Nutrition Centre	 70%	 64%	 83%	 72%
	Total	 53%	 65%	 54%	 57%

Significant funding gaps were reported on development expenditures compared with recurrent budgets (Table 5.2). Overall funding gaps were 64% (2017/18), 55% (2018/19) and 68% (2019/20). The overall funding gap in development expenditures was 63%, which is significant with a negative impact on planned projects and activities implementation.

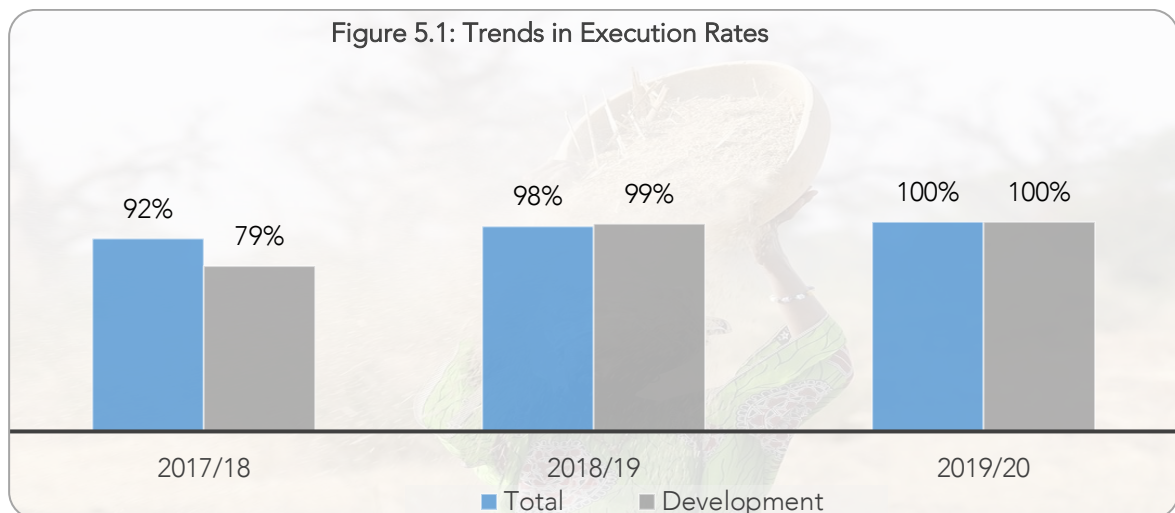
Table 5.2: Development budget allocations funded

Vote	Title	2017	2018	2019	Total
003	National Land Use Planning Commission	0%	40%	0%	25%
005	National Irrigation Commission	28%	24%	23%	25%
024	Tanzania Cooperative Development Commission	0%	0%	0%	0%
043	Ministry of Agriculture	27%	47%	27%	32%
048	Ministry of Lands (subvote 2001)	49%	78%	50%	59%
064	Ministry of Livestock Development and Fisheries - F	0%	58%	52%	50%
069	Ministry of Natural Resources and Tourism (subvote 3	231%	11%	57%	82%
099	Ministry of Livestock Development and Fisheries - L	0%	43%	11%	21%
052	Tanzania Food and Nutrition Centre	0%	0%	0%	0%
	Total	36%	45%	32%	37%

## 5.2 Execution Levels

The comparison between what fund has been received and what has been spent revealed an execution gap. Overall, the execution rates were reported high to leading agricultural sector implementing agents, as shown in **Figure 5.1**. Data provided by implementing agents reported an equal amount between the “Released Funds” and “Actual Expenditures”.

The significant execution gaps were noted at the Irrigation Commission (27%) and the Ministry of Agriculture (8%). These could be accounted for by late disbursements, tight procurement procedures, and inadequate capacity to implement many activities, especially on development projects.



## 5.3 Returns on Expenditures

In its core production function, the agricultural sector is a private business; however, interventions of the public sector activities through its goods and services are essential to ensure its development and growth. Empirical evidence suggests that returns on certain types of expenditures are higher than others. For example, spending on public goods such as agricultural research, extension services, irrigation and agricultural infrastructure is recognized to have the highest payoffs. Hence, PER should provide highlights and in-depth information on where often-limited national resources are reallocated to improve agricultural performance. The examination is done on these essential expenditure items. The main things covered in this report are research intensity, extension services, and agricultural infrastructure.



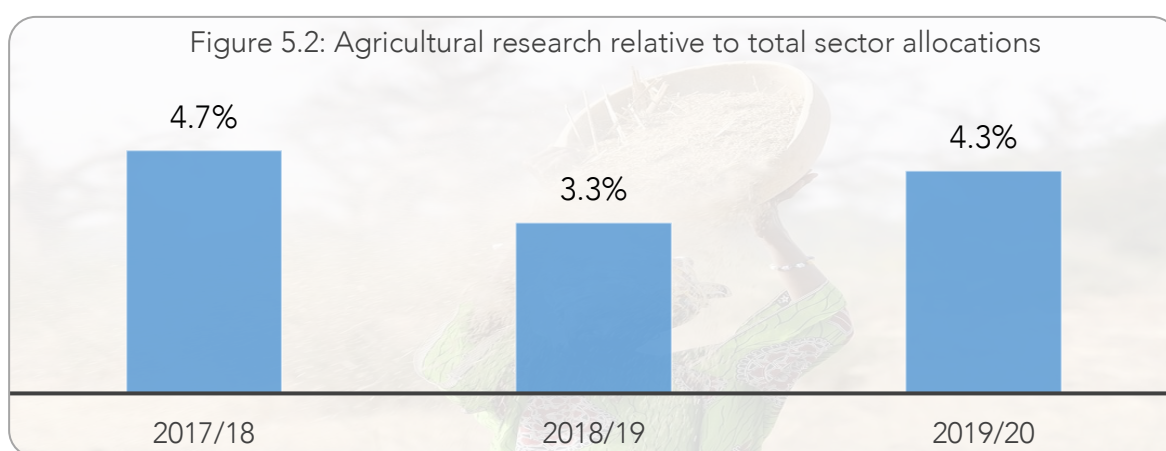
### 5.3.1 *Research Intensity*

Agricultural research has an important role to play in meeting these targets since many of the new technologies, inputs, and techniques of production that increase agricultural productivity are developed through agricultural research. A transformed agricultural research system helps to achieve sustainable food and income security for all agricultural producers and consumers, particularly for resource-poor households, whether they are in rural or urban areas. Agricultural research expenditures are found to have the most considerable effect on agricultural growth and poverty reduction, especially in the long run.

Research intensity, as measured by the number of resources that are allocated and spent in agricultural research activities, has a significant impact on the sector growth and development. However, resources in agricultural research have to balance between what is spent on the compensation of employees in research activities relative to the operating costs and development projects. Focus on personal emoluments and operating expenses on routine and administrative activities will not contribute to the intensity that is required to drive the sector growth. Research has to be linked to the development and adaptation of new

technologies, supportive of extension services and cutting production, processing and marketing costs in the sector.

Overall, the average budget allocation in agriculture research compared to the sector total budget allocation was 4.1%, with patterns as shown in **Figure 5.2** below. Agricultural research allocations were 4.7%, 3.3% and 4.3%, respectively, for the three years of the PER. Compounded by the low level of total resources allocation to the agriculture sector, the research intensity is accounted as low to bring impact to a large number of smallholders farmers to increase productivity and profitability of their farming activities.



Relative to other subcategories of the General Support, agriculture research lies below the top five, as shown in **Table 5.3** below. This means agricultural research lies below the allocations made in agricultural infrastructure, agricultural marketing, storage, technical assistance and extension services. The three-year average was 7.1% of the budget allocation in the General Support category.

Table 5.3: Agricultural research within General Support Allocation

Categories	Amount	Share %
Other support	464,994,889,840	30.6%
Extension services	335,874,569,451	22.1%
Agriculture_infrastructure	176,817,698,975	11.6%
Marketing	154,158,718,761	10.1%
Storage	143,208,226,625	9.4%
Agriculture research	108,218,995,452	7.1%
Technical assistance	77,340,946,640	5.1%
Training	48,109,465,992	3.2%
Inspection	11,097,691,699	0.7%



**Table 5.4** below summarises the indicators of agriculture research composition by sub-sectors. Overall, the most significant agricultural research allocations were made in crops (68.1%), forestry (13.8%), and livestock (13.7%). The other core sub-sectors of the agriculture sectors, i.e., fisheries and cooperatives, have small budget allocations at 3.9% and 0.0%, respectively. The patterns of budget allocations show inconsistency among the sub-sectors and from one year to another. **The share of research to the agricultural sector has to be consistent in terms of investments within sub-sectors and on a trend from one year to another.**

Table 5.4: Trend of agricultural research by sub-sector

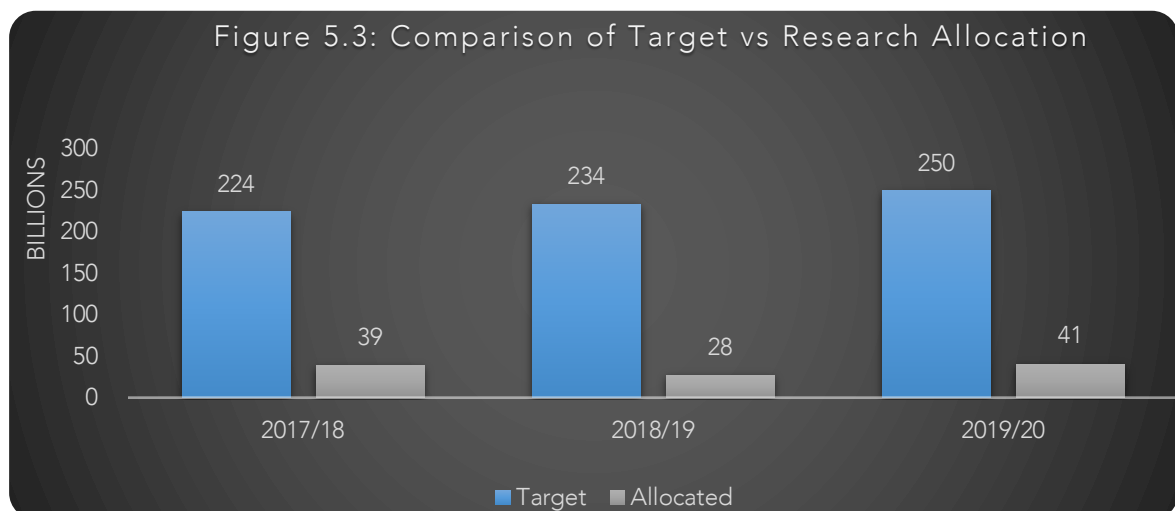
Subsector	2017	2018	2019	Total
Crops	76.2%	65.6%	62.2%	68.1%
Forestry	17.3%	16.1%	8.8%	13.8%
Livestock	6.5%	14.9%	19.7%	13.7%
Cross-cutting	0.0%	1.4%	0.4%	0.5%
Fisheries	0.0%	1.9%	8.9%	3.9%
Cooperatives	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 5.5** below summarises the indicators of agriculture research composition within each sub-sector of the agriculture sector. Most sub-sectors have meagre research allocations—for example, the livestock 3.8%, and fisheries 2.5% average of three years.

Table 5.5: Trend of agricultural research within sub-sectors

Subsector	2017	2018	2019	Total
Crops	7.4%	6.4%	6.8%	6.9%
Forestry	4.3%	2.3%	1.7%	2.6%
Livestock	2.0%	3.1%	6.1%	3.8%
Cross-cutting	0.0%	0.3%	0.1%	0.1%
Fisheries	0.0%	0.7%	5.1%	2.5%
Cooperatives	0.0%	0.2%	0.0%	0.0%
<b>Average</b>	<b>4.7%</b>	<b>3.3%</b>	<b>4.3%</b>	<b>4.1%</b>

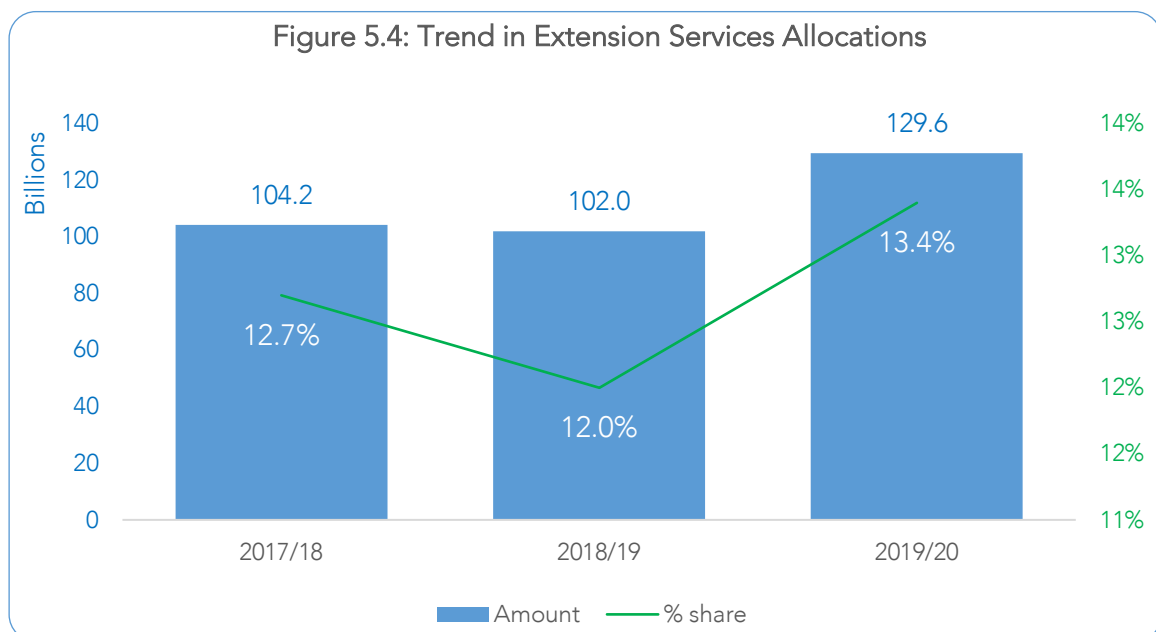
In concluding on agricultural research allocation, it is evident that the proportions were very small relative to the entire agricultural sector overall allocation and each sub-sector allocation. **Figure 5.3** below shows the trend in shares by comparing the budget allocation in agricultural research versus the target values of 1% on agriculture GDP (known as “Khartoum Target” for research in Africa). The target values were calculated as 1% of the agricultural sector GDP as reported by the BoT (2021a). The agricultural research allocations were 17% (2017/18), 12% (2018/19) and 16% (2019/20) of the Khartoum targeted level of agricultural research allocation. **Tanzania is far from investing adequate resources in agricultural research activities to support sector development, growth, and economic contribution.**



### 5.3.2 Extension Services

Agricultural extension, also known as agricultural advisory services, plays a crucial role in boosting agricultural productivity, increasing food security, improving rural livelihoods, and promoting agriculture as an engine of pro-poor economic growth. Extension provides a critical support service for rural producers meeting the new challenges confronting agriculture: transformation in the global food and agricultural system. Agricultural extension services bridge the gap of information and technology between research and production by the farmers.

**Figure 5.4** below shows a trend in extension services allocations for the review period. The trend shows a mixed share from 12.7% of the total agricultural sector allocation in FY 2017/18 to 13.4% in FY 2019/20. The overall three-year period budget allocation was 12.8% of the total agriculture budget allocations. The increase in budget allocation of the extensions services was a CAGR of 11% per annum.



During the review period, most of the extension services budget allocation was accounted by crops sub-sector with 52.3%, followed by livestock 40.1%, cross-cutting at 3.7%, fisheries (including aquaculture) at 3.0%, forestry and beekeeping 0.5% and cooperatives 0.3%.

Table 5.6: Trend of extension services by sub-sectors

Subsector	2017	2018	2019	Grand Total
Crops	55.1%	53.7%	49.1%	52.3%
Livestock	40.9%	38.4%	40.9%	40.1%
Cross-cutting	2.2%	2.6%	5.8%	3.7%
Fisheries	1.9%	3.9%	3.3%	3.0%
Forestry	0.0%	0.7%	0.8%	0.5%
Cooperatives	0.0%	0.8%	0.1%	0.3%
<b>Grand Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

In terms of relative resources allocation within each sub-sector, extensions services were allocated on averages by sub-sectors, as shown in **Figure 5.7** below. Crops sub-sector with the majority of extension services resources allocation had 17% an average of three years, while livestock had 24%, fisheries at 3%, cooperatives at 5% and forestry and beekeeping at 1%. **Overall, the level of agricultural extension services is trim relative to the total budget allocation to the sector and in some sub-sectors of agriculture, mainly fisheries, forestry and cooperatives.**

Table 5.7: Trend of extension services within sub-sectors

Subsector	2017	2018	2019	Grand Total
Crops	14%	19%	17%	17%
Livestock	27%	20%	24%	24%
Cross-cutting	2%	2%	5%	3%
Fisheries	2%	3%	3%	3%
Forestry	0%	1%	1%	1%
Cooperatives	0%	13%	2%	5%

### 5.3.3 Agricultural Infrastructures

Agricultural infrastructure is a typical public good, and it plays a vital role in rural development. Agricultural infrastructure primarily includes many public services that facilitate production, procurement, processing, preservation, and trade. There is also input-based infrastructure: seeds, fertilizer, pesticides, farm equipment and machinery, etc. Adequate infrastructure raises farm productivity and lowers farming costs, and its fast expansion accelerates agricultural and economic growth rates.

Increasing the intensity of public investment and improving the supply level of agricultural infrastructure is necessary to achieve agricultural modernization in rural areas. As a kind of public good, agricultural infrastructure can drive private investment to compensate for underinvestment and improve agricultural productivity. By reducing the cost of agricultural production and increasing output, agricultural infrastructure can create significant benefits in promoting agricultural and economic growth in general.

Agricultural infrastructure expenditures were divided into feeder roads, off-farm irrigation and other infrastructure. Other infrastructure includes several agricultural infrastructure facilities, such as charcoal dams, animal dips, drying platforms, livestock health facilities and others. The allocations increased from TZS 50.7 billion to TZS 68 billion over the three years. Off-farm irrigation had the largest share of budgets with 72%, followed by other infrastructure at 26%, and feeder roads had a small allocation at 2%. The central level had majority allocations at 77%, while the local level allocated 23% of the three years. Relative to total agricultural budget allocation over three years, agricultural infrastructure was given 6.7%.

Table 5.8: Composition of agricultural infrastructure over three-year period

Subsector	Off-farm irrigation	Other infrastructure	Feeder roads	Grand Total
Crops	72.0%	12.4%	1.7%	86.1%
Cross-cutting	0.0%	0.5%	0.0%	0.5%
Fisheries	0.1%	2.7%	0.0%	2.8%
Forestry	0.0%	0.0%	0.0%	0.0%
Livestock	0.0%	10.7%	0.0%	10.7%
<b>Grand Total</b>	<b>72.1%</b>	<b>26.3%</b>	<b>1.7%</b>	<b>100.0%</b>

## 5.4 Climate-Smart Agriculture

In Africa, as in other parts of the world, more climate-resilient agriculture is needed



to achieve the triple win of enhancing agricultural productivity, mitigating emissions of greenhouses, and assisting farmers in adapting to climate change. Based on data analysis, smart spending on climate change was not emerging from the data presented. Expenditure's classifications based on FAO-MAFAP and COFOG+ did not provide room for precise identification of activities that address or target climate

change to ensure smart spending, except development expenditures planned under ASDP II in Component one. Therefore, during the drafting of the PER report, an effort was made to review all activities and identify those that address or target climate change best practices.

### 5.4.1 CSA Composition

Table 5.9 below summarises the climate-smart practices identified from planned activities and budget allocated during the three years. These were specific mentioned activities that were grouped under the standard smart methods. The leading smart practices were agroforestry practices (53.4%), conservation agriculture (19.2%), knowledge and capacity building (17.4%), pasture management (5.8%), and grazing management (3.6%). Other practices with small allocations were integrated aquaculture, water harvesting and off-farm biogas.

Table 5.9: Allocations to climate smart practices over three-year period

Smart Practices	Amount	% share	chart
agroforestry practices	16,094,278,305	53.4%	<div></div>
conservation agriculture	5,796,631,122	19.2%	<div></div>
knowledge and capacity building	5,234,624,563	17.4%	<div></div>
pasture management	1,743,723,032	5.8%	<div></div>
grazing management	1,073,126,623	3.6%	<div></div>
integrated aquaculture	118,400,000	0.4%	<div></div>
water harvesting	57,799,000	0.2%	<div></div>
on-farm biogas production	34,871,748	0.1%	<div></div>
<b>Grand Total</b>	<b>30,153,454,393</b>	<b>100.0%</b>	<div></div>

### 5.4.2 CSA Trends

**Table 5.10** below shows trends and patterns of climate-smart agricultural practices over the review period. The patterns show inconsistencies among the practices on budget allocations from one year to the other. Overall, agroforestry had a higher share than other practices.

**Table 5.10: Trends and proportions on allocations to climate smart practices**

Smart Practices	2017	2018	2019
agroforestry practices	63.1%	39.7%	54.6%
conservation agriculture	31.4%	6.4%	15.2%
knowledge and capacity building	0.9%	34.2%	23.4%
pasture management	2.3%	11.5%	4.4%
grazing management	2.0%	7.5%	1.1%
integrated aquaculture	0.0%	0.6%	0.8%
water harvesting	0.4%	0.0%	0.2%
on-farm biogas production	0.0%	0.0%	0.4%
<b>Grand Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



## 5.5 Rural Development Support

Rural expenditure provided a better measure or view on how rural development is



supported in a country, besides supporting the agricultural sector indirectly. Rural expenditure covers multiple sectors, among which directly impact the agricultural sector value chain like rural roads, water and energy; and others indirectly to farmers livelihood such as health and education. MAFAP methodology, besides agriculture specific spending, also captures - to some extent - expenditures on broader rural development (e.g., rural infrastructure, health and

education programmes in rural areas) given their essential role in agriculture sector development, even if they are not specific to the sector (FAO, 2018).

Rural development expenditures are accounted as agriculture-supportive expenditures. These expenditures are not directly related to the agriculture sector, but rural development more broadly, and such could indirectly affect the agricultural sector's performance. **Whenever possible, the agriculture-supportive expenditures are collected and classified but not included in the total agriculture expenditures.**

The main components of the agriculture-supportive expenditures are rural infrastructure, rural education, rural health, and other supportive rural spending. The rural infrastructure expenditures include rural energy, rural roads and rural water and sanitation expenditures. Some of these expenditures are accounted for under non-agricultural ministries. Three ministries that responded to data requests for the PER study are the Ministry of Energy (Rural Energy), the Ministry of Water (Rural water and sanitation) and PO-RALG (Rural Roads and Rural Health). The Tanzania Rural and Urban Roads Agency (TARURA), which is under PO-RALG, manage the development of rural and urban roads.

**Table 5.10** summarises the total of these rural development expenditures for comparison with total budget allocations for the agriculture sector. The rural development expenditures budget allocations are higher than the allocation made to the agriculture-specific expenditures in all sub-sectors. There is a clear sign that the agriculture sector received a small budget allocation from the public sector. **However, it should be noted that rural roads, as reported by TARURA, also include urban roads expenditures. Rural Health comprised only development expenditures and without PEs and OCs.** Total rural budget allocation over three years is equivalent to 3.7% of the total budget and 1% of the national GDP.

Table 5.10: Agriculture-Supporting Expenditures (TZS million)			
Expenditure	2017/18	2018/19	2019/20
Rural Energy	667,480	567,120	423,108
Rural Water	263,410	262,000	272,719
Rural Roads	295,000	267,000	245,000
Rural Health	122,732	61,284	195,439
Total Rural	1,348,622	1,157,404	1,136,266

Source: Ministries for Energy, Ministry of Water, and PO-RALG.

# 6

## PUBLIC EXPENDITURES IN ASDP II

ASDP II is a significant development programme for the agricultural sector in Tanzania; hence, its separate analysis will provide insights into the levels, composition and quality of expenditures over the last three years of implementation. The section is structured under three main areas: programme structure, resources allocation, and programme execution.

### 6.1 Programme Structure

ASDP is an investment vehicle that pools together agricultural projects and



initiatives towards developing the agricultural sector in Tanzania coherently. ASDP II has formulated after completing the ASDP I, which started in 2006/07 and was completed in 2013/14. The duration of ASDP II is ten years, beginning in 2017/18 to 2027/28. The Programme is to be implemented in two stages of five years each, the first starting from 2017/18 to 2021/22. However, it should be noted that ASDP II actual starting period was FY 2018/19. The main objective of ASDP II is

to transform the agricultural sector (crops, livestock and fisheries) towards higher productivity, commercialization level and increase smallholder farmer income for improved livelihood and guarantee food and nutrition security. The timing of this PER aligns with the two years of ASDP II implementation, i.e., from 2018/19 to 2019/20.

### 6.1.1 Components

ASDP II is a result-oriented sector programme for public support delivery. It serves as the primary vehicle for the implementation of the sector strategy but also sub-sector policies and development programmes (crops, livestock, fisheries, marketing, food security and nutrition, private sector, etc.). The Programme is structured under four main components, broken down into sub-components, investment areas and projects for implementation (see **Table 6.1** below).

**Table 6.1: ASDP II components and projects**

Components	Subcomponents	Investments	Projects
1. Sustainable Water and Land Use Management	3	5	12
2. Enhanced Agricultural Productivity and Profitability	5	5	19
3. Commercialization and Value Addition	2	3	13
4. Strengthening Sector Enablers	6	10	12
<b>Total</b>	<b>16</b>	<b>23</b>	<b>56</b>

Source: ASDP II Programme Document

Furthermore, ASDP II has about 12 focus areas distributed in agricultural ecological zones. **Table 6.2** summarize resource allocation between the national and the local levels by components. On average, it is expected that 25% of the resources will be utilized at the national and RSs, while the Local Government Authorities will spend 75%<sup>4</sup>.

**Table 6.2: ASDP II resource allocation**

Component	National	Local
Sustainable Water and Land Use Management	27%	73%
Enhanced Agricultural Productivity and Profitability	31%	69%
Commercialization and Value Addition	31%	69%
Strengthening Sector Enablers	52%	48%

<sup>4</sup> Central data available do not enable detailed breakdown of expenditures by district or regions to understand geographical allocations.

### 6.1.2 Programme Costs

By combining the base development budgets for each component, the overall investment costs of ASDP II were estimated at TZS 13.819 trillion (equivalent to USD 5.979 billion) over five years of the first phase. The breakdown of programme costs by components is provided in **Table 6.3** below.

Table 6.3: ASDP II Total Programme Costs in Phase 1

Component	Total	% Total
1. Sustainable Water and Land Use Management	2,024,645	15%
2. Enhanced Agricultural Productivity and Profitability	8,081,498	58%
3. Commercialization and Value Addition	3,575,503	26%
4. Strengthening Sector Enablers	137,446	1%
Grand Total	13,819,092	100%

### 6.1.3 Expected Financing

ASDP II is expected to be funded by a combination of fund sources from the Government, DPs (on-budget), DPs (off-budget), and the private sector. Three critical success factors of ASDP II are the development of projects and activities that are aligned to the components and subcomponents with the capacity to scale-up growth, second availability of the funds on time and thirdly, the proper execution and coordination of the programme activities by a wide range of stakeholders.

Table 6.4: ASDP II Financing Structure in Phase 1

Component	Govt	DP on-budget	DP off-budget	private
Sustainable Water and Land Use Management	15%	60%	15%	10%
Enhanced Agricultural Productivity and Profitability	51%	29%	15%	5%
Commercialization and Value Addition	33%	40%	22%	5%
Strengthening Sector Enablers	51%	23%	25%	1%

Source: ASDP II Programme Document

## 6.2 Resources Allocation

### 6.2.1 ASDP II Data

Data from the ASDP II Coordination unit are in aggregate form, with high-level classification on components and agricultural implementing agencies. However, to break down the composition and synthesize critical issues of investment focus areas, sub-sectors, spent location etc., the need to obtain detailed data was a priority for this PER. Detailed data were obtained through identification and extraction from MTEFs of ASDP II budget allocations in development expenditures as budgeted by the ASLMs and non-ASLM institutions. ASDP II's main project code is 4486. However, ASDP II includes other projects codes such as 4407 (swiofish project), 4429 (AFDP), 4493 (SAGCOT), 4494 (MIVARF), 4496 (ERPP), 4499 (TANIPAC) and 4701 (swiofish project). All activities budgeted under these codes were extracted and analysed from their respective votes and sub-votes in this report. Both the central and local institutions used the project codes.

**Table 6.5** compares total budget allocations as per MTEFs and data provided by the Coordination Unit on aggregate. The budget approved as reported by the Coordination Unit is much higher than the extracted budget estimates by activities from MTEFs. The review of the implementation reports revealed that other implementing agencies in ASDP II were not captured in MTEFs of ASLMs and non-ASLMs. These institutions are the Tanzania Prison Services (TPS) under the Ministry of Home Affairs, National Service (JKT) under the Ministry of Defence and National Service, Regional Secretariats (RSs), Vote 56 PO-RALG (TAMISEMI) and the Tanzania Rural and Urban Roads Agency (TARURA). TARURA expenditures comprise both agriculture-specific expenditures ("**feeder roads**" included by COFOG) and agriculture-supportive expenditures ("**rural and urban roads**" excluded by COFOG).

































































Table 6.5: ASDP Comparison of Budget Estimates and Approved

Budget Allocation	2017/18	2018/19	2019/20
Per MTEFs	178,757,953,997	205,877,608,399	273,726,470,721
Per Reports	0	445,587,907,297	489,711,632,430

## 6.2.2 Components Allocation

The ASDP II breakdown of budget allocation was made by fiscal year based on detailed data analysis, as shown in **Table 6.6** below. Component with the largest share of budget allocations was agriculture enhanced productivity (36.1%), followed by commercialization and value chain (33.6%), sustainable water and land use (16.3%) and strengthening sector enablers (14%).

**Table 6.6: ASDP Comparison of Budget Estimates and Approved**

Components and Subcomponents	2017	2018	2019
 Sustainable	 14.4%	 18.9%	 15.6%
1.1. Land Use Planning	 3.2%	 9.4%	 0.3%
1.2. Integrated Water Use	 11.2%	 9.3%	 15.3%
1.3. Climate Change Resilience	 0.1%	 0.2%	 0.0%
 Productivity	 36.6%	 33.1%	 41.2%
2.1. Extension Training	 2.4%	 1.4%	 3.2%
2.2. Agricultural Inputs	 17.8%	 26.5%	 21.1%
2.3. Research + Development	 4.8%	 0.6%	 7.4%
2.4. Mechanization Services	 0.5%	 4.5%	 3.2%
2.5. Food + Nutrition	 6.1%	 0.1%	 6.4%
 Commercialization	 38.3%	 27.3%	 35.3%
3.1. Marketing	 38.1%	 17.6%	 34.9%
3.2. Agro-processing	 0.2%	 9.7%	 0.4%
 Enablers	 15.6%	 20.7%	 7.9%
4.1. Policy + Regulatory	 0.1%	 0.5%	 0.1%
4.2. Stakeholder Empowerment	 0.7%	 0.5%	 1.9%
4.3. Sector Coordination	 5.3%	 3.1%	 0.6%
4.4. Monitoring + Evaluation	 1.0%	 2.3%	 1.5%
4.5. Institution Capacity	 8.7%	 5.6%	 3.5%
4.6. Rural Financing	 0.0%	 8.7%	 0.3%
Grand Total	100.0%	100.0%	100.0%



### 6.2.3 Investment Focus Areas

Table 6.7 below shows the indicators of budget allocations of ASDP II based on focus investment areas. Overall, the activities focused on productivity (32.9%), infrastructure (25%), post-harvest (11.6%), training and capacity building (10.2%), and agricultural services (8.7%).

Table 6.7: ASDP II focus areas in allocations

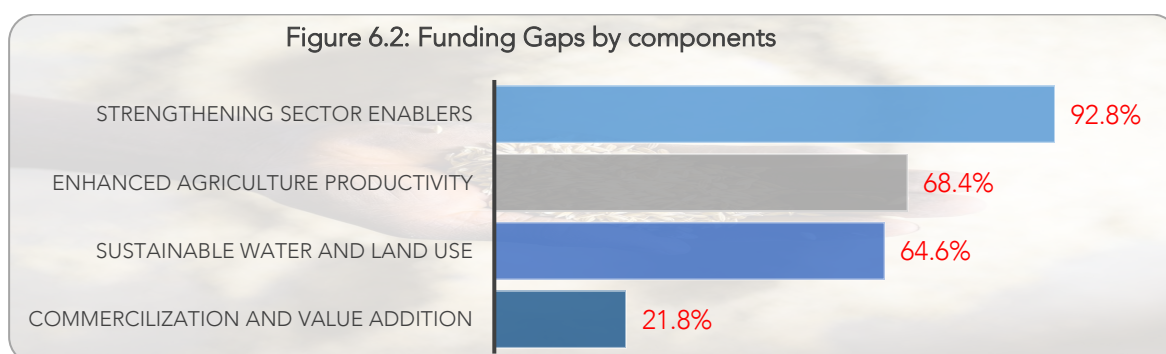
Focus Area	Commercialization	Enablers	Productivity	Sustainable	Grand Total
Agricultural Services	0.3%	7.6%	0.4%	0.3%	8.7%
Emergence Preparedness	0.0%	0.0%	0.0%	0.0%	0.0%
Information Technology	0.1%	0.7%	0.0%	0.0%	0.9%
Infrastructure	12.9%	1.0%	2.7%	8.4%	25.0%
Natural Resources Management	0.0%	0.0%	0.0%	0.7%	0.7%
Nutrition	0.0%	0.0%	0.0%	0.0%	0.0%
Policy Reforms	2.2%	0.0%	1.7%	0.2%	4.1%
PostHarvest	11.3%	0.1%	0.2%	0.0%	11.6%
Productivity	1.3%	1.0%	24.2%	6.5%	32.9%
Research + Extension	0.1%	0.4%	1.3%	0.2%	1.9%
Safety Net	0.0%	0.0%	3.8%	0.0%	3.8%
Training + Capacity Building	5.4%	3.1%	1.7%	0.0%	10.2%
<b>Grand Total</b>	<b>33.6%</b>	<b>14.0%</b>	<b>36.1%</b>	<b>16.3%</b>	<b>100.0%</b>

## 6.3 Programme Execution

The ASDP II programme started implementation in FY 2018/19. Therefore, compared with the PER timeline, the ASDP II covered the last two years of the review, i.e., FYs 2018/19 and 2019/20. During these two years, the ASDP II Coordination Unit under the Prime Minister's Office has prepared the implementation reports published in June 2020 (implementation Report for FY 2018/19) and September 2020 (for implementation report FY 2019/20). These reports and their datasets form the core source of the PER review on this part of the report.

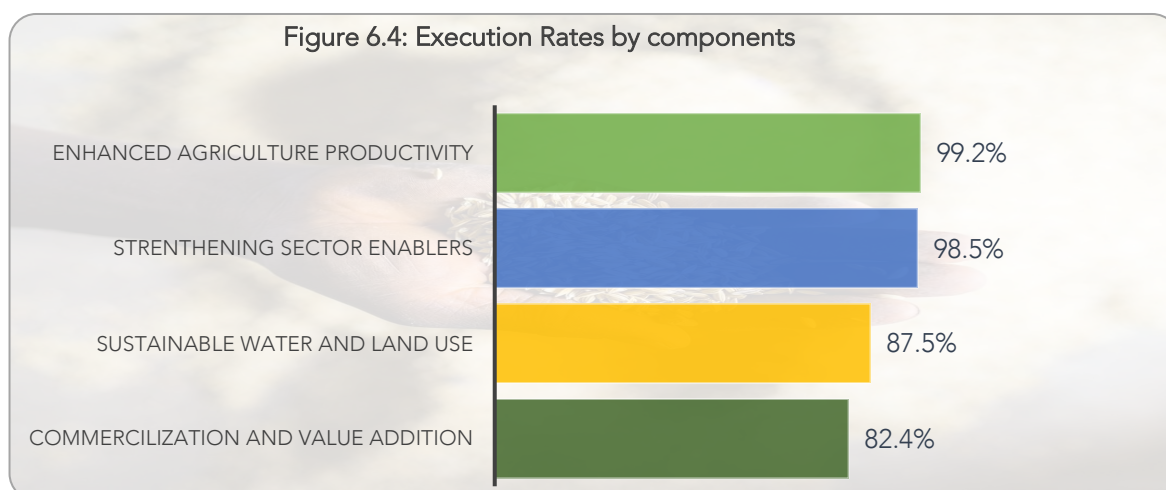
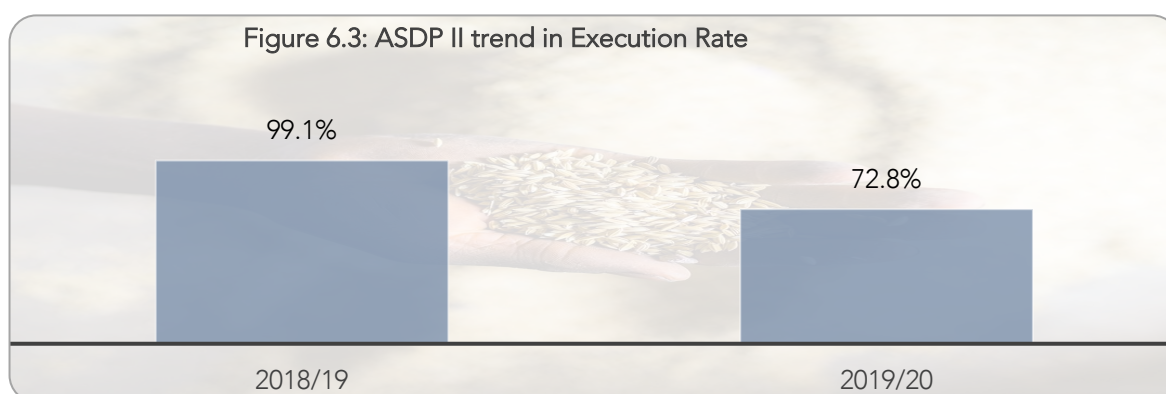
### 6.3.1 Funding Level and Gaps

The ASDP II total approved budget was TZS 445.5 billion in FY 2018/19 and TZS 489.7 billion in FY 2019/20 (**Figure 6.1**). However, the total funds released were TZS 243.8 billion (54.7%) and TZS 288.8 billion (59%). Overall, in two years, the funding gap was 43%. All components of the programme have significant funding gaps, as shown in **Figure 6.2** below.



### 6.3.2 Execution Rates

During the review of the two years, the ASDP II execution rates were 99.1% and 72.8%, as shown in **Figure 6.3**. Based on weighted expenditures, components with high execution rates were component 2 (enhanced agricultural productivity) and component 4 (strengthening sector enablers). In contrast, two components have average execution rates, namely component 1 (sustainable water and land use management) and component 3 (commercialization and value addition (**Figure 6.4**). Overall, the execution rate for the two years was 84.9%.



# 7

## SUMMARY AND RECOMMENDATIONS

PER is a process that aims to inform and provide evidence-based analytical information for policies alignment and input into the country's budgetary process. PER indicators presented in the report are part of diagnostic tools; hence, they cannot be exhaustive in answering many questions on agricultural sector problems. Therefore, this section of the report provides a high-level summary of key findings and policy recommendations to support transforming the agricultural sector and growth in Tanzania.



### 7.1 Key Findings

- This report uses various definitions of the agriculture sector to present a public expenditure review from 2017/18 to 2019/20.

This report presents the Public Expenditure Review (PER) of Tanzania's agricultural sector (including crops, livestock, forestry, and fishery) over 2017/18-2019/20. Data was collected from both government (central and local levels) and donor sources, classified and analysed from July to October 2021 to identify the trends and composition of agricultural spending, and assess its alignment with stated policy priorities.

This PER follows the methodology and framework of FAO-MAFAP for monitoring and analysing food and agricultural policies (FAO, 2015). Different definitions of agriculture are used in the report, with additional coverages for other users. Public expenditure is thus analysed: (i) for the core sector, following the COFOG+ definition; (ii) for an enlarged definition of the sector, including agriculture-specific expenditures (COFOG+) and agriculture-supportive expenditures (including rural roads, rural energy etc.) (FAO-MAFAP methodology); (iii) for Agricultural Sector

Development Programme Phase II (ASDP II), the central agriculture policy framework in Tanzania.

- **Agricultural expenditures increased but remained at about a fifth of the CAADP target over the period**

**The overall level of allocations to agriculture (COFOG+) increased in absolute and relative terms over the period.** In absolute terms, spending on agriculture (as defined by COFOG+) increased from TZS 585 billion in 2015/16 to TZS 846 billion in 2017/18 and TZS 970 billion in 2019/20 in nominal terms. Over the period, 74% of the budget was channelled through the central level and 26% through the local level.

**Agricultural spending is meagre compared to the CAADP target of committing 10% of the national budget to the agricultural sector.** Agriculture allocation (COFOG+) represented 2.7% of national budget in FY 2017/18 (up from 2.6% in 2015/16), 2.6% in 2018/19 and 2.9% in 2019/20. Over the period 2005/06 to 2015/16, budget allocation to agriculture fluctuated between 1.4% and 4.5% of the national budget. It is also shallow compared to the agricultural GDP (2.6% over the period).

- **The funding gap represents a large half of the budget, but execution levels are high.**

**A large half of the budget was unfunded:** the funding gaps reached 47% in 2017/18, 35% in 2018/19 and 46% in 2019/20 at the central level, with an average of 43% over the period. However, they were much higher on the development allocations (63%).

**Central ministries and institutions reported high execution rates,** except for the National Irrigation Commission (execution rate of 73%) and the Ministry of Agriculture (92%).

**The same trends are found at the ASDP II level.** While the approved budget was TZS 445.5 billion (2018/19) and TZS 489.7 billion (2019/20), the total released funds were TZS 243.8 billion (2018/19) and TZS 288.8 billion (2019/20). The average funding gap was 43%. However, on the execution side, the rate was 99.1% and 72.8% in the first and second years.

**Project earmarking and off-budget financing modality have remained the dominant form of funding activities,** contrary to the spirit of the ASDP II programming

document. More effective coordination through collaborative planning, monitoring and evaluation would attract more resources into the sector and facilitate alignment with sector objectives.

- Foreign aid likely represents between a third and a half of public agricultural expenditures.

**Access to accurate and harmonized data on off-budget expenditures is a challenge.** The ASDP II National Coordination Unit (NCU), created in 2019, increasingly coordinates data collection on foreign aid to the sector. However, gathering information for off-budget activities over the 2017/18-2019/20 period proved challenging, and the data collected is likely incomplete, with quality concerns.

**Findings suggest that off-budget foreign aid covers a significant part of resources, about a third of public agricultural spending.** The data collected shows that off-budget financing has been increasing from TZS 192.5 billion in 2017/18 (23% of agricultural allocation), TZS 250.2 billion in 2018/19 (30%) and TZS 349.1 billion in 2019/20 (36%). A couple of large projects drive these trends, and they mask the fact that significant donors have reduced their commitments over the period.

**ASDP II gets support from the development partners, and after two years, it amounts to 15% of the expected contribution over five years.** ASDP II's original budget includes TZS 7,368.7 billion from donors over 2017-2028. Contribution currently amounts to 15% of expected funding, with a particular lag on the "Sustainable Water and Land Use Management" component of ASDP II. Early analysis conducted in the PER points out a need for improved geographical targeting of projects to enhance their impact.

- Public agricultural spending remains focused on recurrent budget, while development budget remains limited.

**Public spending is increasingly focused on the recurrent budget instead of the development budget.** The shares of agriculture (COFOG+) recurrent budget were 56% in FY 2017/18, 58% in 2018/19 and 56% in 2019/20. The development budget represented 44% in FY 2017/18, 42% in 2018/19 and 44% in 2019/20. In addition, over the period, the development budget allocation planned by the local level (LGAs) collapsed from TZS 47.1 billion in FY 2017/18 to TZS 6.4 billion in FY 2019/20.



**The cooperatives sub-sector does not have a development budget.** The period of review shows that the cooperatives sub-sector, as represented by the Tanzania Cooperatives Development Commission (TCDC), did not include any development expenditures in its MTEFs. This means TCDC has no projects to implement in the cooperatives sub-sector.

- Public spending in agriculture essentially targets public goods, with a significant focus on infrastructure.

**Analysis of budget composition shows that most spending supports institutions and general support.** Over the period, institutions (administration costs) received 33% of the agricultural budget, public support of 47% and agents (transfers to producers and consumers) 20%. The share of the latter has been decreased significantly in the absence of a national subsidy program. However, over the period under review, its share has been increasing because of allocations to state-owned enterprises (ASA for seed and TAFICO for fisheries).

**General support to agriculture (COFOG+) is primarily targeted for infrastructure, marketing, and storage.** Allocation to infrastructure increased from TZS 50.7 billion to TZS 68.3 billion over the three years. It included off-farm irrigation (71.9%), feeder roads (1.7%) and a whole range of other infrastructures (26.4%) such as charcoal dams, animal dips, drying platforms, and livestock health facilities.

**While Tanzania provides low support to its agricultural sector (COFOG +), it invests significantly in its supportive environment through additional rural infrastructure.** The analysis of public allocation to agriculture in its broader sense (FAO-MAFAP definition), that is, including rural energy, rural roads, water supply and sanitation, reaches TZS 2.028 trillion in 2017/18, 1.842 trillion in 2018/19 and 1.941 trillion in 2019/20. This is on average twice as much as what was spent on the sector itself.

- Expenditures are low on agricultural research, extension services, and climate change adaptation

**Agricultural research represented less than 5% of agricultural expenditures.** On average, over the period, expenditures on agricultural research only reached 15% of the “Khartoum Target” for research in Africa (which commits to allocate 1% of agricultural GDP to research).

**Data was specifically collected to analyse investments that could contribute to climate-smart agriculture, which turned out to be very low.** More budgeted activities target agroforestry (53.4%), conservation agriculture (19.2%), knowledge



and capacity building (17.4%), pasture management (5.8%) and grazing management (3.6%). Together, they represent about 1.1% of all agricultural spending (COFOG+).

## 7.2 Policy Recommendations

The agricultural Public Expenditures Review for 2017/18-2019/20 leads to the following recommendations:

- **Turn agriculture into a growth engine by prioritizing investments in the sector, particularly investments in development expenditure**

Agricultural growth in Tanzania requires long-term structural investments, which will facilitate inclusive growth catering to over 75% of the population. In terms of sectoral allocation, this would need development expenditures to exceed recurrent ones. The downward trend of development expenditures at the local level mainly concerns the sector's mid to long-term transformation, with the potential to reverse progress made through past investments. While an overall increase in public expenditures is necessary for the agricultural sector in Tanzania, fiscal space remains scarce. It is therefore of utmost importance for agricultural spending to provide as much value for money as possible.

- **Focus spending on high-return areas and commodities**

Improving the targeting of spending over space will help increase value for money. There is a need to assess the criteria for the spatial distribution of funds between regions and agro-ecological zones. For instance, investments in irrigation for both large-scale and small-scale farms could be targeted in specific areas and crops beyond paddy rice, such as maize and tea. Targeting could also be improved on commodities that support sector growth, ensure food security and resilience to climate change.

- **Invest for the future: boost agricultural research and extension services and gear up climate change adaptation**

Expenditures on research and extensions services have been shown to have the highest returns on investments to boost productivity. A change of strategy to foster innovation at all levels in Tanzanian agriculture and food value chains would boost growth and foster value and job creation. Future development will also closely depend on the capacity of the whole sector to adapt to climate change, expected to hit hard the country and undermine agricultural productivity in the mid to long

term. Significant investments are needed for Tanzania to meet this challenge in the upcoming decade.

- **Improve on and off-budget reporting to inform decisions better**

Data collection proved to be challenging for off-budget and the local levels. Understanding how much money is allocated to the sector at the local level is core to improving returns of public funding and improving targeting. There is a need to develop and harmonize the systems and databases that capture agricultural sector data to provide efficient and effective means to build evidence-based guidance for the sector.

- **Improve funding coordination to support government priorities and ASDP II**

For Tanzania to meet its ambitious development goals and transform its agricultural sector into a growth engine, all partners must pull in the same direction. Strengthening coordination mechanisms and ensuring complementarities between on and off-budget projects implemented at the district level with District Agricultural Development plans (DADPs) will thus be critical. Among the strategies to do so, re-vitalizing a basket fund to support ASDP II could be of high relevance.

- **Decide on the consistency of using a specific PER methodology**

Past PERs were based on high-level analysis using functional form data on the Government expenditures. This year, PER was based on FAO-MAFAP methodology with a detailed breakdown into four levels of analysis. There are also other methodologies to undertake PER in the agricultural sector; hence the decision is required to select and apply methodology consistently in order to benefit from comparative indicators. An alternative approach is to develop the country own PER methodology to respond to local needs.

- **Develop mechanism on data gathering for PER and sector usage**

Tanzania has conducted PER on the agricultural sector over several years; however, data collection has been a challenge and time consuming all the time. It is recommended that a data gathering mechanism and archiving database be developed that will enable lite PER to be conducted every year and in-depth PER to be conducted after every three years.

- **Set a realistic target for sector allocation with a marginal increase each year.**

Many African countries found it difficult to allocate resources up to 10% of their national budget to the agricultural sector. Therefore, it is recommended that strategic decisions must be made to step up allocation with a realistic target of 5%

in five years' timeframe. This means the target to step up budget to 3.3%, 3.7%, 4.3%, 4.6%, and 5% can be achieved in the next five years.

- **Carry out further studies to support PER results**

Further analysis is thus recommended to assess the effectiveness of public expenditure in critical strategic areas for Tanzania's agricultural growth. The additional studies proposed include agricultural public expenditure impact assessment, support to farming mechanisation, and agro-processing.

### 7.3 Implementation Matrix

**Table 7.1** below summarises the implementation matrix for the policy recommendations made. The matrix comprises recommendations tasks, lead implementer, and support mechanism.

Table 7.1: Recommendations' implementation matrix

Recommendation	Key tasks	Lead implementer	Support mechanism
Turn agriculture into a growth engine by prioritizing investments in the sector, particularly investments in development expenditure	<ul style="list-style-type: none"> <li>• Review existing projects.</li> <li>• Develop additional required projects.</li> </ul>	ASDP II NCU	<ul style="list-style-type: none"> <li>• ASLMs</li> <li>• MoFP.</li> <li>• DPs WG</li> </ul>
Focus spending on high-return areas and commodities	<ul style="list-style-type: none"> <li>• Develop implementable activities and include them in MTEFs.</li> </ul>	ASLMs	<ul style="list-style-type: none"> <li>• MoFP</li> </ul>
Invest for the future: boost agricultural research and extension services and gear up climate change adaptation	<ul style="list-style-type: none"> <li>• Develop implementable activities and include them in MTEFs.</li> </ul>	ASLMs	<ul style="list-style-type: none"> <li>• MoFP</li> </ul>
Improve on and off-budget reporting to inform decisions better	<ul style="list-style-type: none"> <li>• Develop ToR.</li> <li>• Review current mechanism.</li> <li>• Improve mechanism.</li> </ul>	ASDP II NCU	<ul style="list-style-type: none"> <li>• DPs WG</li> <li>• MoFP</li> <li>• ASLMs</li> </ul>

Recommendation	Key tasks	Lead implementer	Support mechanism
Improve funding coordination to support government priorities and ASDP II	<ul style="list-style-type: none"> <li>Review current coordination mechanism and recommend improvement.</li> </ul>	ASDP II NCU	<ul style="list-style-type: none"> <li>MoFP</li> <li>ASLMs</li> </ul>
Decide on the consistency of using the specific PER methodology	<ul style="list-style-type: none"> <li>Review current methodologies.</li> <li>Adopt or develop, own methodology</li> </ul>	ASDP II NCU	<ul style="list-style-type: none"> <li>MoFP</li> <li>ASLMs</li> </ul>
Develop mechanism on data gathering for PER and sector usage	<ul style="list-style-type: none"> <li>Develop ToR.</li> <li>Carry out a review of existing the mechanism.</li> <li>Develop database and data collection mechanism.</li> </ul>	ASDP II NCU	<ul style="list-style-type: none"> <li>MoFP</li> <li>DPs WG</li> <li>ASLMs</li> </ul>
Set a realistic target for sector allocation with a marginal increase in each year	<ul style="list-style-type: none"> <li>Identify all Agricultural Sector institutions in the country.</li> <li>Review their current MTEFs and identify critical activities to boost investment.</li> </ul>	MoFP	<ul style="list-style-type: none"> <li>ASDP II NCU</li> <li>ASLMs</li> </ul>
Carry out further studies to support PER results	<ul style="list-style-type: none"> <li>Select study areas.</li> <li>Develop ToR.</li> <li>Carry out studies.</li> <li>Develop action plans.</li> </ul>	ASDP II NCU	<ul style="list-style-type: none"> <li>ASLMs</li> <li>JASR</li> <li>DPs WG</li> <li>MoFP</li> </ul>

## 8 APPENDICES

List of Appendices:

- Appendix A: Reference.
- Appendix B: Agricultural Institutions.
- Appendix C: PER Framework.





## 8.1 Appendix A: References

African Union (2003): Declaration on Agriculture and Food Security in Africa. Declarations adopted during the Assembly of the African Union, Second Ordinary Session, 10-12 July 2003 in Maputo, Mozambique.

African Union (2014): Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihood. Twenty Third Ordinary Session of the AU Assembly in Malabo, Equatorial Guinea, 26-27 June 2014.

Andrew E Temu, Magreth Henjewe and Godgift Swai (2016): Proceedings of the 2nd Annual Agricultural Policy Conference, 23-25 February 2016, Serena Hotel, Dar es Salaam, Tanzania.

BoT (2021a): Economic Bulletin for the Quarter Ending June 2021, Vol LIII No.2, Bank of Tanzania.

BoT (2021b): Monthly Economic Review, May 2021, Bank of Tanzania.

CAADP/NEPAD (2015a): Guide for Carrying Out “Light” Agriculture Public Expenditure Reviews, Draft, 29 December 2015.

CAADP/NEPAD (2015b): The AU Guidance Note on Tracking and Measuring the Levels and Quality of Government Expenditures for Agriculture, Draft, 18 June 2015.

Carolyn Wangusi and Dr Willy Muturi (2015): Impact of Agricultural Spending on Agricultural Productivity: Case Study of Kenya, International Journal of Sciences: Basic and Applied Research, Volume 24, No 4, pp 180-187.

Charlotte Sers and Mazhar Mughal (2018): From Maputo to Malabo: Public Agricultural Spending and Food Security in Africa, HAL archives-ouvertes, Pau Business School, France. 19 July 2018.

FAO (2015): Initiatives for Agricultural Public Expenditures Monitoring and Analysis in Africa – A comparative review and analysis; by Alban Mas Aparis, Leopold Ghins and Jean Balie, Rome.

FAO (2018): Agricultural Policy and Market Distortions in Tanzania: A Synthesis of the Evidence, Technical Note, Draft 15 October.

FAO (2021): Public Expenditure on Food and Agriculture in Sub-Saharan Africa: Trends, Challenges and Priorities, Rome, Italy.

MAFAP (2013): MAFAP Methodological Implementation Guides: Volume II – Analysis of Public Expenditure on Food and Agriculture. MAFAP Technical Notes Series, FAO, Rome, Italy. July 2013.

MAFAP (2014): Policy Engagement & Theory of Change: Monitoring and Analysing Food and Agricultural Policies II. MAFAP, FAO, Rome, Italy.

MAFAP (2015a): MAFAP Methodology working paper: Volume II, Analysis of Public Expenditure on Food and Agriculture. MAFAP Technical Notes Series, FAO, Rome, Italy.

MAFAP (2015b): MAFAP Methodology working paper: Volume II, Analysis of Public Expenditure on Food and Agriculture. MAFAP Technical Notes Series, FAO, Rome, Italy.

NBS (2018): National Population Projections; National Bureau of Statistics and Office of Chief Government Statistician (Zanzibar). February 2018.

NBS (2019): Household Budget Survey 2017-18: Key indicators Report, National Bureau of Statistics, Dodoma. June 2019.

NBS (2020): 2019 Tanzania in Figures, National Bureau of Statistics, The United Republic of Tanzania, Dodoma. June 2020.

NEPAD (2021): Agenda 2063 – First Ten Year Implementation Plan, Core Indicators Profile Handbook, revised Version, February 2021.

Simson R and B Welham (2014): “Incredible Budgets: Budget Credibility in Theory and Practice”, Overseas Development Institute, Working Paper 400.

URT (2011): Tanzania Agriculture and Food Security Investment Plan (TAFSIP) 2011/12 – 2020/21: Main Document, The United Republic of Tanzania, 18<sup>th</sup> October 2011.

URT (2015 – 2020): The Citizen’s Budget, the Ministry of Finance in collaboration with Policy Forum.

URT (2015): The Budget Act (Principal Legislation), Revised Edition of 2016, Cap 439, 30<sup>th</sup> March 2016.



URT (2017a): Agricultural Joint Sector Review (JSR) for 2014/15 and 2015/16, Tanzania Mainland, The United Republic of Tanzania, March 2017.

URT (2017b): Agricultural Sector Development Programme Phase II (ASDP II): Agricultural Sector for Industrial Development, The United Republic of Tanzania, November 2017.

URT (2017c): Tanzania Livestock Master Plan (2017/18 – 2021/2022), The Ministry of Livestock and Fisheries, The United Republic of Tanzania, December 2017.

URT (2017d): Chart of Accounts and Its Definitions: Based on Government Finance Statistics Manual 2014, The Ministry of Finance and Planning. July 2017.

URT (2019–2021): Consolidated Financial Statements for the Year Ended 30<sup>th</sup> June 2018, 30<sup>th</sup> June 2019 & 30<sup>th</sup> June 2020, The Ministry of Finance and Planning, The United Republic of Tanzania.

URT (2019–2021): Consolidated Financial Statements for the Year Ended 30<sup>th</sup> June 2018, 30<sup>th</sup> June 2019 & 30<sup>th</sup> June 2020, The Ministry of Finance and Planning, The United Republic of Tanzania.

URT (2020a): Taarifa ya Utekelezaji wa Programu ya Kuendeleza Sekta ya Kilimo Awamu ya Pili (ASDP II) kwa Mwaka 2018/19, Ofisi ya Waziri Mkuu, Jamhuri ya Muungano wa Tanzania, Dodoma, Juni.

URT (2020b): Taarifa ya Utekelezaji wa Programu ya Kuendeleza Sekta ya Kilimo Awamu ya Pili (ASDP II) kwa Mwaka 2019/20, Ofisi ya Waziri Mkuu, Jamhuri ya Muungano wa Tanzania, Dodoma, Septemba.

URT (2021): Hali ya Uchumi wa Taifa Katika Mwaka 2020, Wizara ya Fedha na Mipango, Jamhuri ya Muungano wa Tanzania, Juni.

World Bank (2011): Practitioners' Toolkit for Agriculture Public Expenditure Analysis, Washington, D.C.

Zeraibi Ayoub and Michel Mivumbi (2019): The Impact of Public Expenditure on the Agricultural Sector Productivity in China, American Journal of Humanities and Social Sciences Research, Volume 3, Issue 09, pp 173-180.

## 8.2 Appendix B: Agricultural Institutions

VOTE	TITLE	SUB-VOTE	COMPONENT
003	THE NATIONAL LAND USE PLANNING COMMISSION	ALL	LANDS MANAGEMENT
005	THE NATIONAL IRRIGATION COMMISSION	ALL	IRRIGATION
024	THE COOPERATIVE DEVELOPMENT COMMISSION	ALL	COOPERATIVE
037	THE PRIME MINISTER'S OFFICE	5001	ASDP II COORDINATION
043	THE MINISTRY OF AGRICULTURE	ALL	CROPS
044	THE MINISTRY OF INDUSTRY AND TRADE		AGRICULTURE MARKETING
048	THE MINISTRY OF LANDS	3001	LANDS MANAGEMENT
049	THE MINISTRY OF WATER		RURAL WATER
052	THE MINISTRY OF HEALTH (TFNC),	TFNC	NUTRITION
056	PO-RALG		<ul style="list-style-type: none"> <li>SCHOOLS FEEDING PROGRAMS</li> <li>RURAL EDUCATION</li> <li>RURAL HEALTH</li> <li>RURAL INFRASTRUCTURE</li> <li>RURAL OTHER SUPPORT</li> </ul>
058	THE MINISTRY OF ENERGY		RURAL ENERGY
060	THE MINISTRY OF INDUSTRY AND TRADE	4002	AGRICULTURE MARKETING
064	THE MINISTRY OF LIVESTOCK AND FISHERIES	ALL	FISHERIES
069	THE MINISTRY OF NATURAL RESOURCES AND TOURISM	3001	FORESTRY & BEEKEEPING
099	THE MINISTRY OF LIVESTOCK AND FISHERIES	ALL	LIVESTOCK
	REGIONAL SECRETARIATS (26 REGIONS)		AGRICULTURE
	LOCAL GOVERNMENT AUTHORITIES (184 LGAS)		<ul style="list-style-type: none"> <li>AGRICULTURE, IRRIGATION &amp; COOPERATIVES DEPARTMENT</li> <li>LIVESTOCK &amp; FISHERIES DEPARTMENT</li> </ul>

## 8.3 Appendix C: Public Expenditure Review Framework

### 8.3.1 *Specific Tasks*

The general framework for conducting PER is provided in terms of reference (ToR). Specifically, the ToR states that:

- PER will utilize FAO-MAFAP public expenditure analysis methodology to measure URT's total agricultural expenditure consistent with the COFOG+ definition and assess the country's performance against the CAADP target of 10% of national budget allocation for agriculture.
- The period of analysis coincides with the first two years of the first stage of the Agriculture Sector Development Programme phase two (ASDP II). Therefore, the PER will analyse the coherence between URT's public expenditures, the objectives and priorities outlined in the ASDP II Program and Project budget requirements.
- Finally, the PER will also allow FAO-MAFAP to complete and update its public expenditures database for URT. The three components of the PER, namely FAO-MAFAP methodology, COFOG+ definition and ASDP II, are covered in more detail in the following sub-section on PER classification.

### 8.3.2 *Which Definition?*

What constitutes total public agricultural sector expenditures depends on its definition to compile the data for aggregation. There are two categories of the meanings of what comprises the agriculture expenditures, namely narrow definition and broad definition. During the current PER in Tanzania, it was observed that four definitions could be adopted depending on the user of the information. These possible definitions are outlined in **Table 8.1** below:

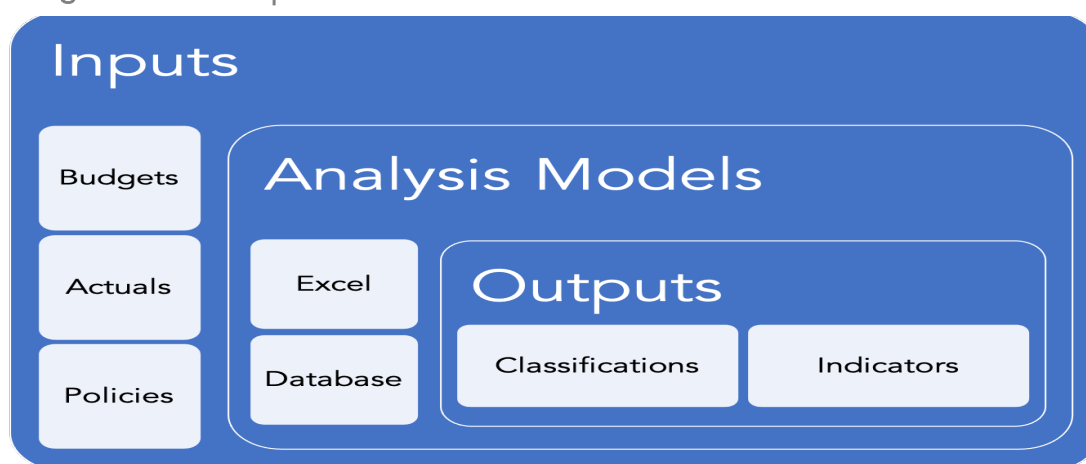
Table 8.1: Four type definitions

Definition	Description	Contents
Definition 1 (COFOG+)	This is the core definition of what makes up agriculture expenditures as it is based on the enhanced Classification of Functions of Government (COFOG+). CAADP has adopted this definition to report the agriculture sector's performance to the AU.	This is mainly Agriculture-Specific Expenditures for agricultural agencies. This includes personal emoluments, other charges, and development expenditures.
Definition 2 (COFOG+OFF-BUDGET)	The second definition is based on the total expenditures as defined by COFOG+ and off-budget expenditures financed by the development partners to the agricultural projects. The AU Guiding Notes allow the inclusion of the off-budget data if they have credible information.	This includes both on-budget and off-budget public expenditures on the agricultural sector. Types of expenditures are personal emoluments, other charges, and development expenditures, both on-budget and off-budget.
Definition 3 (FAO-MAFAP)	The third definition is based on the FAO-MAFAP methodology, according to which agriculture expenditures have two components, agriculture-specific expenditures (mainly COFOG+ definition) and agriculture-supportive expenditures.	This includes both agricultural-specific expenditures and agricultural-supportive expenditures. Agricultural-specific is the same as definition one, while agricultural-supportive expenditures are rural expenditures (e.g., roads, energy, water and sanitation, health, education, etc.).
Definition 4 (FAO-MAFP + OFF-BUDGET)	The fourth definition is based on MAFAP, together with off-budget expenditures by the development partners.	This includes three items, agricultural-specific expenditures, agricultural-supportive expenditures, and off-budget expenditures on public spending.

### 8.3.3 Conceptual model

Each country's agricultural sector PER is unique; hence, it requires a tailored approach. This current PER approach was tailored and aligned to the specific methodology and scope of the work outline in terms of reference (ToR). In the case of Tanzania, PER is conducted in a participatory manner with the agriculture sector stakeholders represented by the JSR Technical Team. The participation of the JSR Technical Team was in the validation process at various stages of the work. Based on a conceptual framework model of input-output relationship, the task was to translate inputs (expenditures data as budgets, actuals and policies) through analytical models (spreadsheets and databases) to produce outputs as classifications and indicators for the agriculture expenditures of the three years. The conceptual framework model is depicted in **Figure 8.1**, with a hierarchy of inputs, analysis models, and expected outputs.

Figure 8.1: Conceptual model of PER



Source: Developed by consultant

### **8.3.4**      *Perimeter*

The perimeter corresponds to the extent of public expenditure data to be included in the data collection and analysis. Therefore, this sub-section provides a perimeter framework that guides the public expenditure mapping and analysis. The terms of reference (ToR) require the validation of the perimeter of study, i.e., public expenditures to be included in the PER, which the JSR Technical Team conducted during two workshops in Dodoma in August and Morogoro in October 2021. Perimeter framework is based on two key concepts, as discussed below.

#### *Perimeter by definition*

The perimeter of the analysis is based on FAO-MAFAP's definition of agriculture. It states that all public expenditure on food and agriculture reported in the national budget of a country is considered in the FAO-MAFAP approach, regardless of their nature, objectives, perceived economic impacts or source of funding. The perimeter of expenditure on food and agriculture in FAO-MAFAP contains agriculture-specific and agriculture-supportive expenditures. However, it should be noted that to assess Tanzania agricultural expenditures against the CAADP 10% target and ASDP II objectives and priorities, the second component for agriculture-supportive spending was excluded.

#### *Perimeter by principles*

Based on the principles and concept for what makes up the public expenditure on agriculture (PEA), a few areas need consensus on what to include and not to include (CAADP/NEPAD, 2015a, 2015b). Based on the information deduced from the literature reviews, three main principles will be taken into account as the perimeter for the current assignment. These are described below:

- **Common Standards:** Based on AU Guidance Note (AU, 2015), the first perimeter is set on the common standards that expenditure approach and data classification and collection system shall be “enhanced COFOG” with four core functions (crops, livestock, fisheries and forestry) together with cross-cutting activities and programs. These common standards extend data collection beyond the current ASLMs structures in Tanzania. For example, forestry and beekeeping are managed by the Ministry of Natural Resources

and Tourism (MNRT) and many cross-cutting activities that directly impact the agricultural growth come from outside the ASLMs, such as land management from the Ministry of Lands and the National Land Use Planning Commission.

- **Off-Budget Expenditures:** AgPER Lite Guide (AU, 2015) states that off-budget expenditures **can be included if credible information is available**. Experience has revealed difficulties in getting this type of data amid weak coordination among stakeholders of the agriculture sector.
- **Cash Basis Accounting:** AU Guidance Note recommends using cash, not an accrual accounting system, in collecting the public expenditure data for the analysis. This means the budget and actual expenditures data should be cash and not an accrual base.