



MAFAP
SPAANA

Monitoring African Food and Agricultural Policies
Suivi des politiques agricoles et alimentaires en Afrique

**ANALYSIS OF PUBLIC EXPENDITURES IN SUPPORT OF
FOOD AND AGRICULTURE DEVELOPMENT IN THE UNITED
REPUBLIC OF TANZANIA, 2006/07-2010/11:**

A Preliminary Assessment

JANUARY 2013



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ACRONYMS

AFSP	Accelerated Food Security Project
ASDP	Agricultural Sector Development Programme
ASDS	Agricultural Sector Development Strategy
ASLM	Agricultural Sector Lead Ministries
CAADP	Comprehensive Africa Agriculture Development Programme
CDC	Cooperatives Development Commission
ESRF	Economic and Social Research Foundation
FAO	Food and Agriculture Organisation of the United Nations
LGAs	Local Government Authorities
MAFAP	Monitoring African Food and Agriculture Policies project
MAFSC	Ministry of Agriculture, Food Security and Cooperatives
MCST	Ministry of Communication, Science and Technology
MEM	Ministry of Energy and Minerals
MEVT	Ministry of Education and Vocational Training
MF	Ministry of Finance
MHA	Ministry of Home Affairs
MHSW	Ministry of Health and Social Welfare
MITM	Ministry of Industry, Trade and Marketing
MKUKUTA	National Strategy for Growth and Reduction of Poverty
MLFD	Ministry of Livestock and Fisheries Development
MLHSD	Ministry of Lands, Housing and Human Settlements Developments
MNRT	Ministry of Natural Resources and Tourism
MW	Ministry of Works
MWI	Ministry of Water and Irrigation
NAIVS	National Agricultural Inputs Voucher Scheme
NEPAD	New Partnership for Africa Development
OECD	Organisation for Economic Co-operation and Development
PADEP	Participatory Agricultural Development and Empowerment Project
PMO	Prime Minister's Office
PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
PO	President's Office
TASAF	Tanzania Social Action Fund
URT	United Republic of Tanzania
V-PO	Vice-President's Office

1. Purpose of the paper

The Monitoring African Food and Agricultural Policies (MAFAP) project intends to help African policy-makers and other stakeholders ensure that policies and investments are fully supportive of agricultural development, the sustainable use of natural resources and enhanced food security. It aims to support decision-making at national, regional and pan-African levels, and thereby contribute to the Comprehensive Africa Agriculture Development Programme (CAADP) of the New Partnership for Africa Development (NEPAD). For this, the MAFAP project will develop a system for monitoring food and agricultural policies in Africa. Central to this system will be the production of a triennial monitoring report and in-depth studies for an increasing number of countries. The reports will contain indicators and analysis of value to key stakeholders, including national governments and development partners. These indicators will provide quantitative information on agricultural policies, including market interventions and budgetary expenditures, and will measure the scale of development challenges faced by the agricultural sector. The proposed indicators and analysis will help inform decision-making in two key areas. First, how can food and agricultural policies best address the country's policy objectives with respect to development, food security, poverty reduction and natural resource use? And second, how can aid and public expenditures most effectively target areas where the need is greatest and potential returns are highest? The information produced will feed into national decision-making processes and mechanisms for policy dialogue at the pan-African and regional level, as well as with donors and other stakeholders.

This paper is a technical note that focuses on the analysis related to the pillar of the project on budgetary expenditures in support of food and agriculture sector development and its aim is to provide a preliminary assessment of public expenditures in support of food and agriculture sector development in The United Republic of Tanzania (URT). Consistently with the scope of the MAFAP project, the paper does not provide an in-depth analysis of relationship between sector performance and public expenditures nor the impact assessment of project and programmes covered in the analysis. It neither addresses issues related to the budget planning, coordination and implementation. Instead, it demonstrates the economic incentives that the public expenditures provide to the agriculture sector development and discusses main issues related to efficiency of spending in support of food and agriculture. In the final country report, the public expenditure analysis will be brought together with other MAFAP indicators, such as price incentives/disincentives and performance and development indicators, providing a comprehensive review of economic incentives and disincentives in the agriculture sector and suggesting areas for policy reform.

The note is based on initial data collected by MAFAP partners in The United Republic of URT from the Economic and Social Research Foundation (ESRF) and the Ministry of Agriculture Food Security and Cooperatives (MAFSC). At the time of drafting this technical note, the overall assessment of agricultural spending was still on-going. In particular, a small number of projects are missing in the analysis, because related data could not be obtained in time (Annex 2 provides a detailed description of data covered in the analysis). As a consequence, any figures, statements and conclusions drawn on their basis may be subject to further revisions.

The paper is addressed to those readers who are familiar with MAFAP methodology for measuring public expenditures in support of food and agriculture sector development and its terminology.

Those readers who are not familiar with the methodology are invited to refer to MAFAP concept paper available at: www.fao.org/mafap. However, for readers' convenience, a few main definitions are reminded in Box 2 and main concepts summarised in Annex 3.

2. Economic and policy context: agriculture, poverty and public expenditures in Tanzania

The United Republic of Tanzania is largely an agriculture-based economy. Despite a falling contribution to the GDP, agriculture still accounts for more than a quarter of GDP (Figure 1) and remains an important contributor to economic growth (Figure 2). More than 73 percent of the population is rural and about two-thirds of the employed work in the agricultural sector (in 2006 the employment in agriculture was equal to 76.5 percent, while more recent data were not available; Table 1).

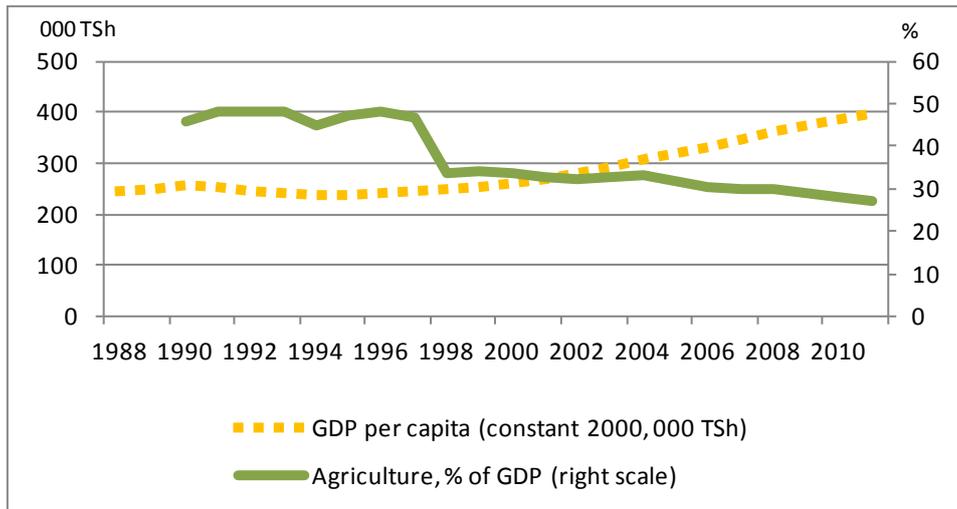
Table 1. Agriculture and poverty in Tanzania, 2011

Agriculture, % GDP	27.1
Employment in agriculture (%) ^a	76.5
GDP per capita (constant 2000, 000 TSh)	399
GDP per capita (constant 2000 USD)	473
GDP per capita (PPP 2005 USD)	1334
Poverty headcount ratio	67.9
USD PPP 1.25 a day (% of population) ^b	
Poverty headcount ratio	87.9
USD PPP 2 a day (% of population) ^b	
Prevalence of undernourishment ^c	38.8
(% of population)	
Rural population (% of total population)	73.3
Population (million)	44.8

Notes: a 2006 estimate. b 2007 estimate c. 2010-12 estimate.

Source: WDI, 2011 and FAO, 2012a

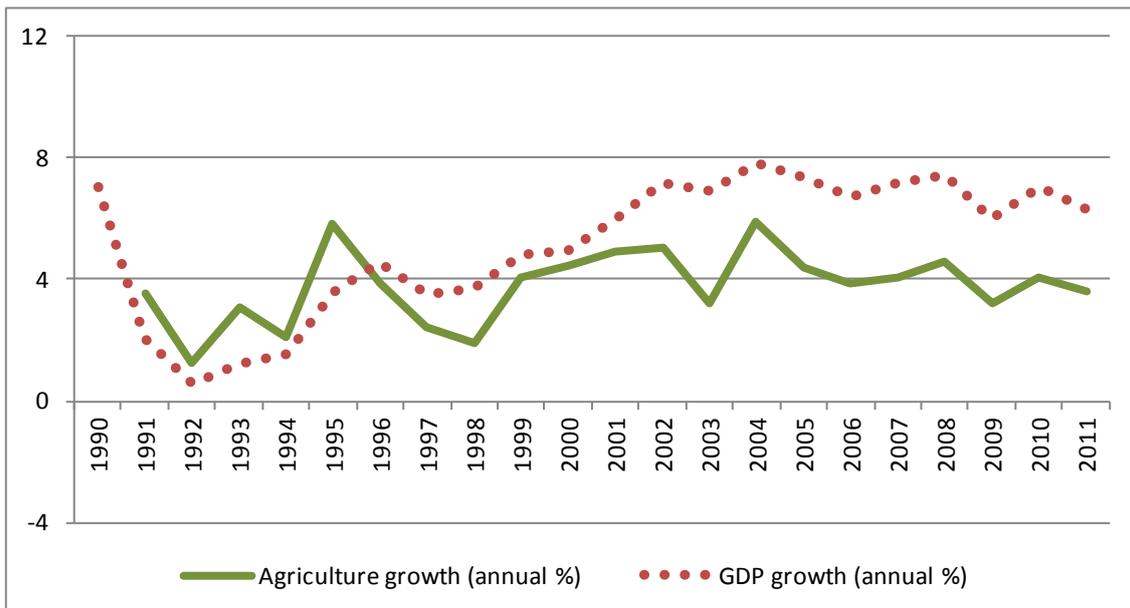
Figure 1. Share of agriculture in GDP and GDP per capita in Tanzania



Source: WDI (2012)

Given that most of Tanzanians live in rural areas and derive their livelihoods from agriculture, agriculture sector development, and rural development more generally, have potentially a very important role to play in poverty reduction and improving food security. Although per capita income has grown continuously for the past 2 decades (Figure 1), the 2010 per capita income in URT of 399 thousands TSh (473 constant 2 000 USD) places it among world's poorest countries. According to the World Bank figures, almost 88 percent of the population lives on less than 2 dollars-a-day and almost 68 percent is estimated to live on less than 1.25 dollar-a-day, a level that defines extreme poverty. Further, about 39 percent of the population is estimated to be undernourished, i.e. living with chronic hunger.

Figure 2. Agriculture and GDP growth rates in Tanzania



Source: WDI (2012)

Yet, the importance of agriculture in Tanzanian economy was not recognised until late 1990s, when the long term vision of development in URT, the Tanzania Development Vision 2025, was established

to accelerate economic growth and reduce poverty. The Vision was the first to recognise the role of agriculture sector in national development and identified agriculture as the key driver of economic growth. The more recent medium term development goals, expressed in the 2004 National Strategy for Growth and Reduction of Poverty, more commonly known under its Kiswahili acronym – MKUKUTA, have further underlined the importance of agriculture sector development. MKUKUTA, established for the initial period of five years and subsequently revised for another 5 year period into MKUKUTA II, defined the following priority drivers of growth in agriculture: supporting physical infrastructure, water and irrigation infrastructure, financial and extension services, knowledge and information, value addition activities (crop production, livestock, fish processing, and mechanisation), trade and export development services (WB, 2010).

To support addressing these priority areas, the Agricultural Sector Development Strategy (ASDS) was developed and adopted in 2005. The ASDS provides specific goals, operational targets and priority action plans aiming at achieving the broad policy objectives set in MKUKUTA. The ASDS main strategic objectives include: creating an enabling and favourable environment for improved productivity and profitability in the agricultural sector; increasing farm incomes to reduce income poverty and ensure household food security by enabling farmers to have better access to and use of agricultural knowledge, technologies, marketing systems and infrastructure; and promoting private investments based on improved regulatory and policy environment (ASDS, cited from ESRF 2010).

The ASDS was accompanied by a set of sub-sector policies including (ESRF, 2010):

- the cooperative development policy (established in 1997 and reviewed in 2002) to create an enabling environment for cooperatives to operate efficiently in the liberalised economy;
- the National Livestock Policy of 2006;
- the Agricultural Marketing Policy of 2008;
- the National Irrigation Policy of 2010;
- the draft National Agricultural Development Policy of 2010 focusing on crops.

These sub-sector agricultural strategies made reference to strategic objectives set in the ASDS to ensure consistency with the overall priorities set for the sector development. The main priority investment areas in agriculture are summarised in Table 2.

Table 2. Overall priority investment areas in agricultural sector in Tanzania

Investment priority area	Benefits
Infrastructure (feeder roads, markets, electrification, storage facilities etc.) and agro-processing	Improved distribution of inputs and lower costs of inputs Improved transport of agricultural products and lower marketing costs Attraction of private investment in agro processing and other non-farm activities Increased market outlet for agricultural products, increased producer prices, increased farmers' income
Irrigation	Increased production of agricultural products, more specifically maize and rice Increased and stable income for farmers
Mechanisation	Increased labour productivity and income for farmers Farmers' labour available for other non-farm income generating activities
Research and development	Increased labour and land productivity Increased farmers' income
Farm inputs	Increased labour and land productivity Increased farmers' income
Renewable natural resources	Improved adaptation to climate change Improved environmental management including soil fertility

Source: ESRF (2010)

All these strategies fall under mandate of the so-called Agricultural Sector Lead Ministries (ASLM), namely the Ministry of Agriculture, Food Security and Cooperatives (MAFSC), the Ministry of Livestock and Fisheries Development (MLFD), the Ministry of Industry, Trade and Marketing (MITM), and the Prime Minister's Office - Regional Administration and Local Government (PMO-RALG)¹. However, agricultural sector development is also strongly influenced by issues that are outside the mandate of the ASLMs. The ASDS recognises the synergies between agriculture sector development and development in other sectors of the economy, underlining that the planning of agricultural programmes should be done in collaboration with other sectors, particularly in case of rural infrastructure development, industrial development, the impact of HIV/AIDS and malaria, youth migration, environmental management etc.

These issues are addressed in more details in the Rural Development Strategy and Rural Development Policies, which were developed in the early 2000s (ESRF, 2010).

¹ The Ministry of Water and Irrigation Development (MWI) was part of ASLMs until 2012. In 2012 it was restructured into Ministry of Water and irrigation matters were taken over by MAFSC. MITM was very recently restructured into Ministry of Industry and Trade. Given that the analysis covers 2006/07 to 2010/2011 period, we use the old name in the analysis for the sake of coherence between sources of data and the corresponding text.

Figure 3 summarises the relationship between the strategies and main programmes related to the agriculture sector in URT for the analysed period, while Box 1 summarises the most recent changes in the agricultural development strategies that are currently being adopted.

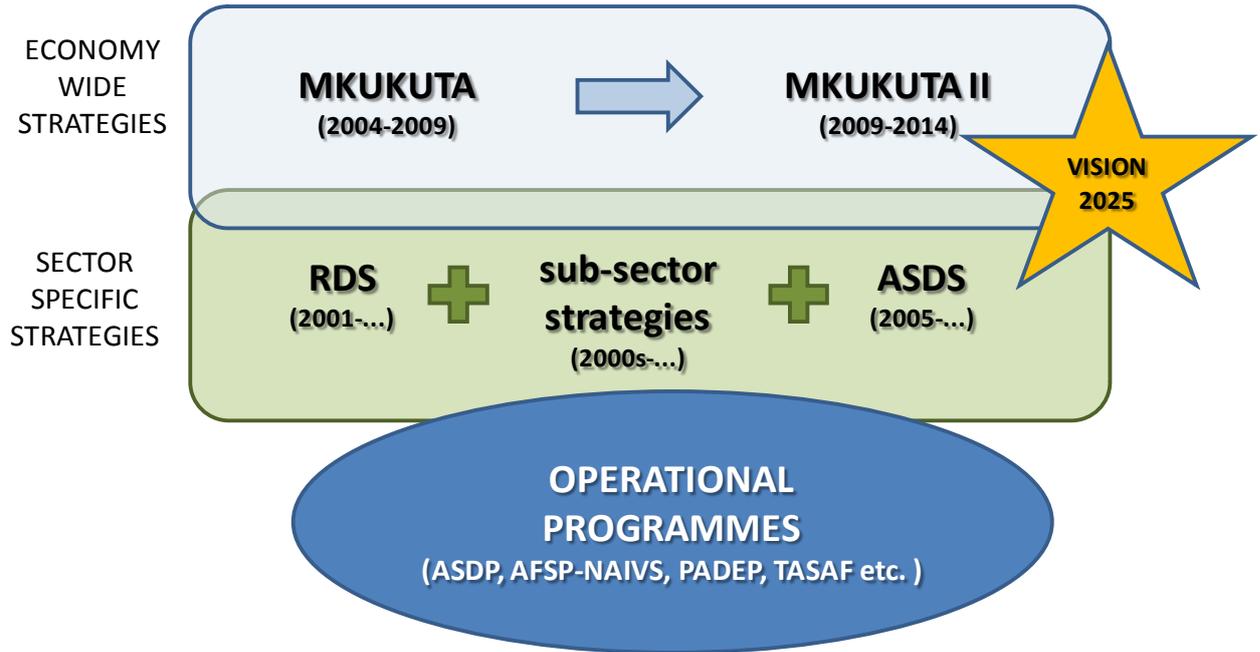
The strategies described above have been translated into more than 170 individual projects and programmes that shaped public expenditures in support of food and agriculture sector development in URT in the 2006/07-2010/11 period under analysis.

Among these the most important one is the Agricultural Sector Development Programme (ASDP), the main implementing instrument of the ASDS operated by the ASLMs. The ASDP is composed of five key operational components, namely: the policy, regulatory and institutional arrangements; agricultural services (research, advisory and technical services, and training); public investment; private sector development, market development and agriculture finance; and cross-cutting and cross-sectoral issues, such as gender mainstreaming and implementation of lands acts; implemented either at national level by ASLM or at a district level by the LGAs (URT, 2005).

Other important projects include: Accelerated Food Security Project (AFSP), implemented under MAFSC, to support the government's efforts in achieving greater food security by increasing food production and productivity through inputs (seeds and fertilizers) subsidies provided under the government's National Agricultural Inputs Voucher Scheme (NAIVS); Participatory Agricultural Development and Empowerment Project (PADEP), also implemented by the MAFSC, that supports grants to communities and farmer groups for investment in agricultural development subprojects and focusing primarily on improving soil fertility and land management, adopting sustainable agricultural technologies and increasing efficiency in inputs and outputs marketing; the Tanzania Social Action Fund (TASAF) of the President's Office that supports implementing food security, education, roads, water, health, training and environment related projects; Rural Energy Fund implemented by the Ministry of Energy and Minerals and investments in rural roads implemented by Ministry of Works. Other multiple smaller projects address a wide range of agriculture-related areas such as: livestock and fisheries development, mechanisation, development of irrigation infrastructure, development of marketing infrastructure, development of agricultural cooperatives, development of agriculture-related small and medium enterprises, development of rural financial services, facilitation of trade and improvement of food security and nutrition, among others.

All these projects and programmes are analysed below to reveal the overall patterns of public expenditures in support of food and agriculture development in URT.

Figure 3. Strategic framework for agriculture and rural development in Tanzania



Box 1: Recent changes in agriculture development strategies in Tanzania

To reinforce the emphasis on the agriculture sector development expressed in the Vision 2025, MKUKUTA II and the ASDS, the government together with the private sector have formulated the Kilimo Kwanza – Agriculture First resolve initiated in 2009. The main objective of this resolve is to increase the role of the private sector in agriculture sector development and improve mainstreaming of agriculture-related intervention across the ministries. The main priority areas of intervention include: increasing concessionary lending to agriculture, empowering agricultural cooperatives, creating commodity exchanges, removing market barriers to agricultural commodities, enhancing trade integration, promoting public-private partnerships in investments in agriculture-related infrastructure and agriculture services delivery, improving access and use of agriculture knowledge and technologies, accelerating land reform.

In 2010 The United Republic of Tanzania signed the African Union’s Comprehensive African Agriculture Development Programme (CAADP) Compact. Participation in the CAADP provides for URT an opportunity to further strengthen its agricultural development efforts. More specifically, it allows involvement of a broader range of stakeholders, particularly a greater number of development partners and the private sector, in supporting the agricultural sector in a more harmonised way. It allows a more accurate identification of the priority intervention areas, based on lessons learnt from the implementation of currently existing programmes as well as from peer reviews of other countries participating in the CAADP. With the currently implemented strategies and programmes coming to an end, the CAADP provides an opportunity for realignment of the country’s agricultural development strategies to the overall poverty reduction strategies to contribute more efficiently to the overall goal of poverty reduction. Further, CAADP allows for a better participation in regional initiatives that promote more dynamic regional and sub-regional market linkages and other regional collaborations that contribute to the development of the sector in the country. Finally, participation in the CAADP is likely to attract more private investment in the sector by providing more coherence and predictability to all stakeholders in the sector. The first important CAADP related initiative in URT is the Tanzanian Agriculture and Food Security Investment Plan, launched in November 2011.

Source: ESRF (2010), URT, AU, NEPAD (2010), OECD (2012b) and TNBC (2009)

3. Definition of the agriculture sector in the context of public expenditures in Tanzania

Public expenditures in agriculture in URT have been typically measured taking into account those resources that were expended by agencies specifically responsible for agricultural matters. At the national level these include the ASLMs. At the district level agricultural expenditures are executed by the local government authorities (LGAs).

Much of the expenditures that are important for the agricultural sector may occur outside the agricultural ministries and institutions. In the case of URT, many agriculture-related projects and programmes are managed by ministries that are not directly linked to agriculture. Among the most important ones are the Ministry of Finance (MF), Ministry of Communication, Science and Technology (MCST), Ministry of Energy and Minerals (MEM), Ministry of Lands, Housing and Human Settlements Developments (MLHSD), Ministry of Health and Social Welfare (MHSW), Ministry of Natural Resources and Tourism (MNRT), Ministry of Education and Vocational Training (MEVT), Ministry of Works (MW), Prime Minister's Office (PMO) and President's and Vice-President's Offices (PO and V-PO). All government budget votes have been examined and all the expenditures in support of food and agriculture sector development have been included in the analysis.

Box 2: Measuring public expenditure in support of the agricultural sector: different definitions lead to different results

The level of public expenditure in support to agriculture in the United Republic of Tanzania has been measured in many occasions. In particular the World Bank has been undertaking Rapid Budget Analysis (RBA) for the years 2008-2011, an effort which has been taken over by the Development Sector of the Irish Embassy for 2012. The level of public expenditure on support of agriculture depends on what is considered as the agricultural sector.

In addition to the "traditional" votes and ministries included in the RBA we consider additional expenditure from additional ministries such as the Ministry of Energy and Minerals, Ministry of Education and Vocational Training, Ministry of Health and Social Welfare, Ministry of Infrastructure Development, and Ministry of Natural Resources and Tourism. Moreover, our analysis has revised all votes, sub-votes and programs in the budget of the United Republic of URT identifying all projects that might be related to agriculture and/or rural development.

As it can be seen the MAFAP definition is broader and therefore our results will show higher levels of public expenditure for agriculture. In particular we seek to capture all public expenditures in the rural areas, as they may also have an important role in agriculture's sector development, even if they are not specific to the sector. The latter information will also help to establish a view of a country's general policy environment and whether there is a pro or anti-rural bias in supporting expenditures in such important areas as infrastructure, health and education

We do not take a normative approach regarding which definition is better or worse, however we do believe that no agricultural specific support is important when considering the overall enabling environment for agricultural development. To facilitate comparisons with other studies we will also report the level of public expenditure for agriculture following the more restrictive definition of the agricultural sector.

Additional information regarding how public expenditure is measured can be found in the annexes. Annex 1 presents the list of all votes, sub-votes and programs included in the analysis, highlighting those that are included in the MAFAP definition of agricultural sector in addition to those included in the measurement undertaken by RBAs. Annex 2 describes the data sources used and how they have been treated. Last Annex 4 provides a comparison of the approaches used to measure and analyze public expenditure used by the RBA and MAFAP.

The following analysis uses concepts and definitions described in the MAFAP methodology for measuring public expenditures in support of food and agriculture sector development and its terminology. Those readers who are not familiar with the methodology are invited to refer to Komorowska (2010). However, for readers' convenience, a few main definitions are provided in Box 3, while Annex 3 provides a brief summary of main concepts.

Box 3: Main definitions

Total public expenditures in support of food and agriculture sector (budget allocations and total spending) include both policy transfers in support of food and agriculture, referred to as public expenditures in support of food and agriculture sector development, and policy administration costs.

Public expenditures in support of food and agriculture sector development: all public expenditures that are undertaken in support of food and agriculture sector development, financed from the national budget, either central or regional government, regardless of the ministry that implements the policy, and external aid, provided either through local governments or specific projects conducted by international organisation or NGOs. They are composed of agriculture-specific expenditures and agriculture-supportive expenditures.

Agriculture-specific expenditures: all public expenditure measures that generate monetary transfers to agricultural agents (producers, consumers, input suppliers, trades, processors and transporters) or the sector as a whole (e.g. in form of research, extension services etc.)

Agriculture-supportive expenditures: public expenditure measures that are not strictly specific to agriculture sector, but that have strong influence on agricultural sector development, such as rural education, rural health or rural infrastructure (energy, water and sanitation, roads etc.)

Support to individual commodities: public expenditures that directly target specific individual commodities such as coffee or tea.

Support to groups of commodities: public expenditures that directly target specific groups of commodities such as crops or livestock.

Support to all commodities: public expenditures that do not target specific individual or groups of commodities, but that benefit any agricultural activity.

4. General trends in Tanzania's public expenditure in support of agriculture

The total approved budget² in the sector grew by 53 percent, in nominal terms, from 2006/07 to 2010/11 reaching 944.5 billion TSh (Table 3). The peak of budget allocations occurred in the 2009/2010 financial year with the 1198.9 billion TSh allocated in support of agriculture. The total actual spending has grown at a slower pace: it increased by 30 percent from 2006/07 to 2010/11 reaching 728 billion TSh, although the highest actual spending value falls in the 2007/08 financial year with 878.4 billion TSh spent in support of agriculture.

In relative terms, however, the agricultural budget allocations have declined from almost 13 percent of total government spending in 2006/07 to about 9 percent in 2010/11 (Figure 4). Actual spending in relative terms has also decreased significantly in the analysed period. The highest share of agriculture sector expenditures in the total budget expenditures falls in the 2007/2008 financial year, both in terms of budget allocations and actual spending, reaching 15 and 17 percent respectively. Since then, the importance of agriculture in the total government expenditures has been constantly decreasing. The current level of spending does not meet the CAADP recommendations of allocating 10 percent of the overall budget to agriculture and rural development (including national resources and aid), as expressed in the 2003 Maputo Declaration.

If we undertake this analysis considering the traditional, restricted, definition of public expenditure on support to the agricultural sector we can see that during the studied period URT both budgeted amounts and actual expenditure have fallen far from the Maputo Declaration target except for budgeted amounts in 2009/2010. Difference between the MAFAP definition of support to the agricultural sector and the traditional one show a declining trend mainly due to the decline in support for agricultural supportive policies (see figure 5).

Table 3. Total public expenditures in support of food and agriculture sector in Tanzania: budget allocations and actual spending

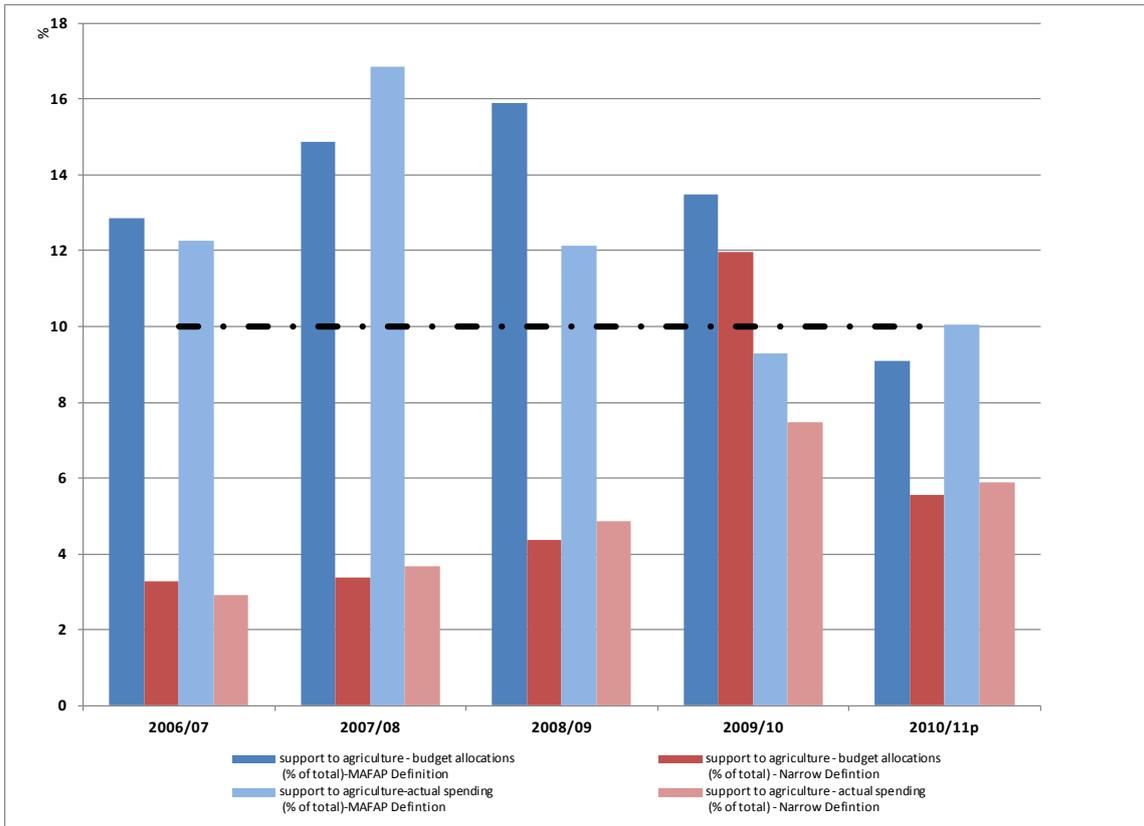
	2006/07	2007/08	2008/09	2009/10	2010/11 ^P	% change 2006/07-2010/11
	billion TSh					
budget allocation	616.0	891.7	1143.3	1198.9	944.5	53
actual spending	584.5	878.4	825.1	759.3	728.0	30
Exchange rate¹ (TSh per USD)	1245	1196	1320	1409	1572	

1. Exchange rates are the annual averages for the calendar year from 2007 to 2011.

Source: Own calculations based on data provided by the ESRF for the MAFAP project and WDI (2012).

² Total agricultural expenditures (budget allocations and total spending) include both policy transfers in support of agriculture and policy administration costs. They include funding from national resources and from foreign aid.

Figure 4. Total public expenditures in support of food and agriculture sector in total government expenditures in Tanzania: planned versus actual spending



For definitions on coverage of public expenditure under the two definitions see box 2 above.

Source: Own calculations based on data provided by the ESRF for the MAFAP project

Table 4. Public expenditures in support of food and agriculture sector in Tanzania (actual spending)

	billion TSh				
	2006/07	2007/08	2008/09	2009/10	2010/11 ^P
I. Agriculture specific policies	161.0	224.1	272.0	425.8	414.4
I.1. Payments to the agents in the agro-food sector	54.5	67.7	126.0	240.9	136.7
I.1.1. Payments to producers	49.6	62.6	122.8	236.8	133.7
A. Payments based on output	0.0	0.0	0.0	0.0	0.0
B. Input subsidies	44.7	62.3	120.3	229.6	133.4
<i>B1. variable inputs</i>	32.1	41.6	81.9	197.6	116.3
<i>B2. capital</i>	11.9	15.8	22.6	21.4	15.1
<i>B3. on-farm services</i>	0.6	5.0	15.7	10.7	2.0
C. Income support	0.0	0.0	0.0	0.0	0.0
D. Other	5.0	0.2	2.6	7.2	0.3
I.1.2. Payments to consumers	0.0	0.0	0.0	0.0	0.0
E. Food aid	0.0	0.0	0.0	0.0	0.0
F. Cash transfers	0.0	0.0	0.0	0.0	0.0
G. School feeding programmes	0.0	0.0	0.0	0.0	0.0
H. Other	0.0	0.0	0.0	0.0	0.0
I.1.3. Payments to input suppliers	0.0	0.0	0.0	0.0	0.0
I.1.4. Payments to processors	4.8	5.1	3.2	4.1	3.0
I.1.5. Payments to traders	0.0	0.0	0.0	0.0	0.0
I.1.6. Payments to transporters	0.0	0.0	0.0	0.0	0.0
I.2. General sector support	106.5	156.4	146.0	184.9	277.7
I. Agricultural research	18.7	38.8	48.9	54.2	49.1
J. Technical assistance	0.0	0.0	0.0	0.0	0.0
K. Training	28.8	59.9	44.7	57.4	166.3
L. Extension	15.1	24.4	22.2	21.8	17.9
M. Inspection (veterinary/plant)	0.7	0.4	1.2	2.7	3.1
N. Infrastructure	1.3	3.2	4.8	4.1	3.5
O. Storage/public stockholding	25.1	6.7	0.8	1.0	0.9
P. Marketing	6.2	11.0	13.6	9.0	6.3
R. Other	10.6	12.0	9.7	34.7	30.5
II. Agriculture supportive policies	392.9	598.9	473.9	204.4	234.1
S. Rural education	115.3	90.0	42.7	29.1	16.8
T. Rural health	50.0	68.1	130.9	67.4	44.6
U. Rural infrastructure	227.3	439.5	299.2	106.6	170.8
<i>roads</i>	125.7	289.7	245.6	28.3	85.0
<i>water and sanitation</i>	34.8	104.8	49.1	24.3	41.9
<i>energy</i>	66.8	45.1	4.5	52.0	41.9
<i>other</i>	0.0	0.0	0.0	2.0	2.1
V. Other	0.4	1.4	1.1	1.4	1.9
III. Total expenditures in support of food and agriculture sector (policy transfers)	553.9	823.1	746.0	630.2	648.5

^P – provisional

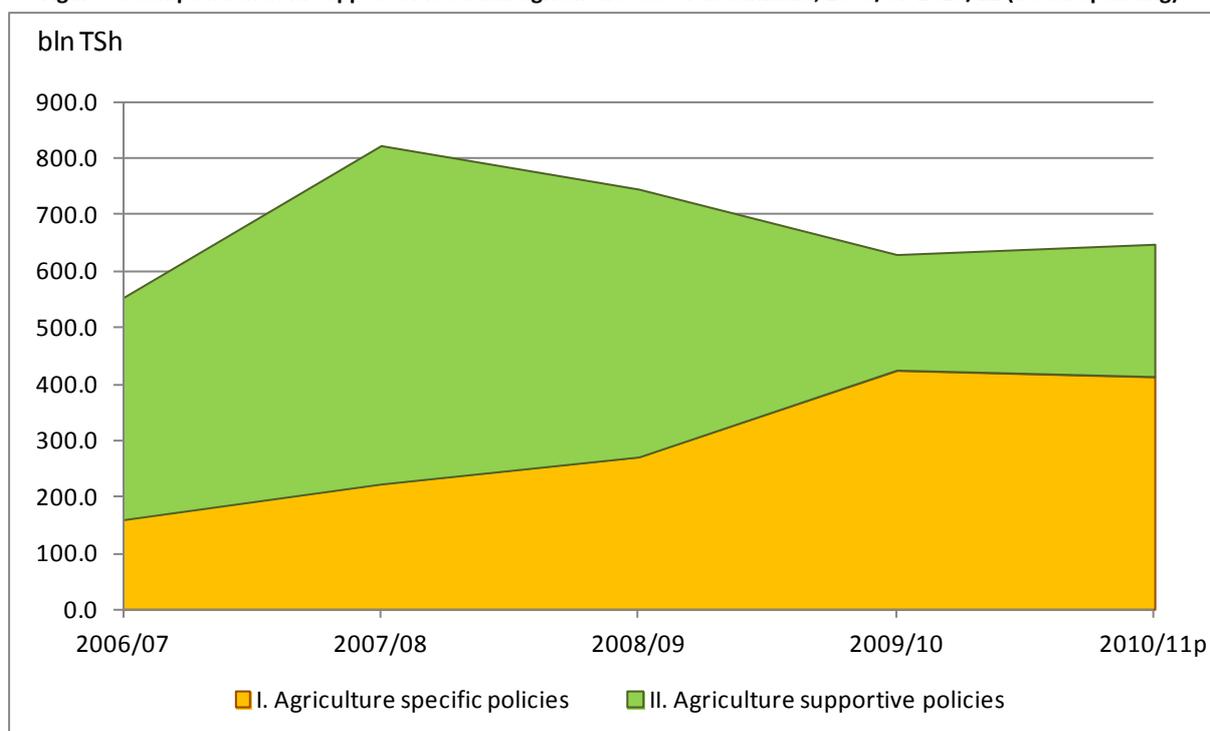
Source: Own calculations based on data provided by the ESRF for the MAFAP project.

5. Composition of public expenditures in support of the food and agriculture sector in Tanzania

Data collected at the country level allows for a good disaggregation of expenditures, funded from national resources and foreign aid, allocated to the agricultural sector. About 170 projects and programmes were identified and classified into the MAFAP classification as outlined in the project methodology (MAFAP, 2010). Collected data cover the 2006/07 to 2010/11 period, however, for many of the expenditure measures data on actual spending was missing for the most recent year. In such cases, estimation methods were applied provisionally, until the most recent data will be obtained from the country³. The results are shown in Table 4.

Agriculture-specific expenditures account, on average, for almost 45 percent of expenditures in support of food and agriculture sector development. Their importance in overall agricultural support grew from about 29 percent in 2006/07 to 64 percent in 2010/11. In terms of the level of spending, agriculture-specific expenditures more than doubled over the analysed period, while agriculture-supportive expenditures decreased significantly (Figure 5).

Figure 5. Composition of in support of food and agriculture sector in Tanzania, 2006/07-2010/11 (actual spending)



Source: Own calculations based on data provided by the ESRF for the MAFAP project.

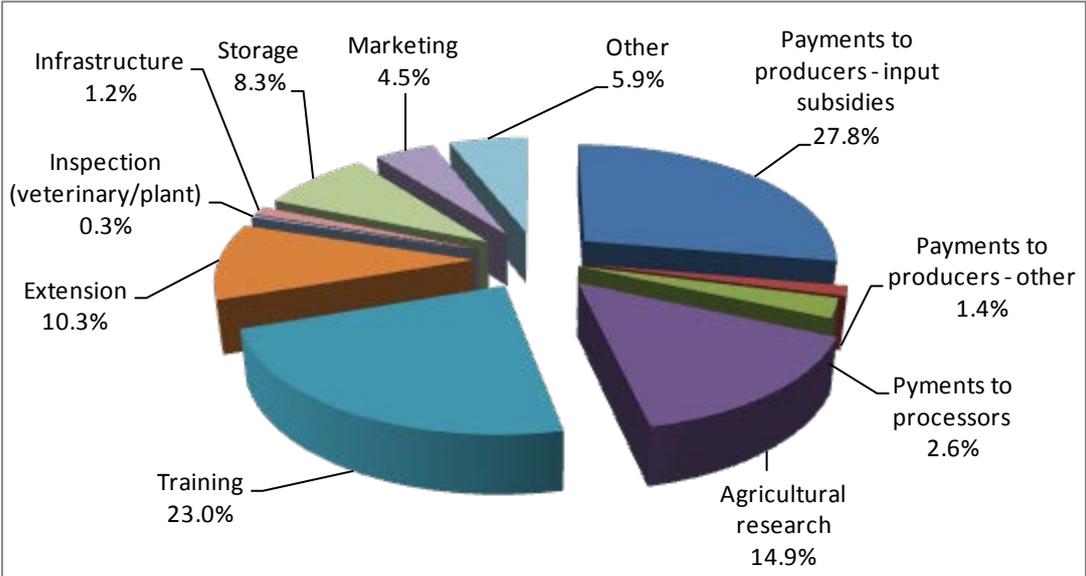
Among agricultural-specific expenditure measures, about 60 percent were in the general sector support category. In the first part of the analysed period, 2006/07-2007/08, the biggest share of these expenditures fell into the training category (Figure 6). Other important categories included

³ The full database is available upon request.

agriculture research, extension and storage. Much less was spent on marketing (including related infrastructure), infrastructure and inspection. There were no expenditures on technical assistance. In the second part of the analysed period, 2008/09-2010/11, the composition of general sector support was slightly different (Figure 7).

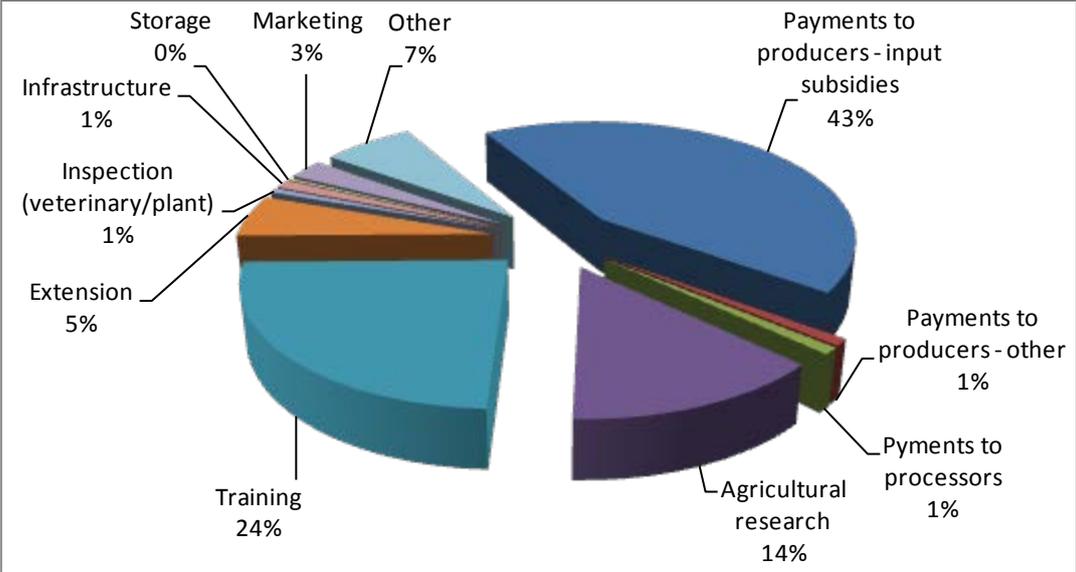
Expenditures on training, research, inspection, infrastructure and marketing accounted for similar proportions of agriculture-specific spending. However, extension services accounted for smaller share of agriculture-specific spending, while expenditures on storage became almost insignificant.

Figure 6. Composition of agriculture-specific spending in Tanzania, average 2006/07-2007/08



Source: Own calculations based on data provided by the ESRF for the MAFAP project.

Figure 7. Composition of agriculture-specific spending in Tanzania, average 2008/09-2010/11



Source: Own calculations based on data provided by the ESRF for the MAFAP project.

Payments to agents in the agro-food sector accounted, on average, for the remaining 40 percent of agriculture-specific expenditures (Figure 6 and 7). Within this category, most of expenditures were

payments to producers in the form of input subsidies, particularly subsidies to variable inputs, and their importance increased over time, mostly due to implementation of the National Agriculture Input Voucher Scheme.

Despite the importance given to irrigation in the Agricultural Sector Development Program (ASDP) and in the Tanzania Agriculture and Food Security Investment Plan (TAFSIP), public resources devoted to irrigation are a very minor part of total expenditure. Irrigation expenditures would be found in categories B2 (for on farm investments) and N (for off farm investments).

Even if we consider that these two categories would cover only irrigation related investments, the total expenditure for them has never exceeded 5 percent of total expenditure and for the overall period falls far from the 474 billion TSh envisaged in the ASDP as reported in Table 5 of the Government Program Document⁴. This low level of investment on irrigation means that out of a total 22 million hectares which have been identified as suitable for irrigation, only 1 percent has been developed so far.

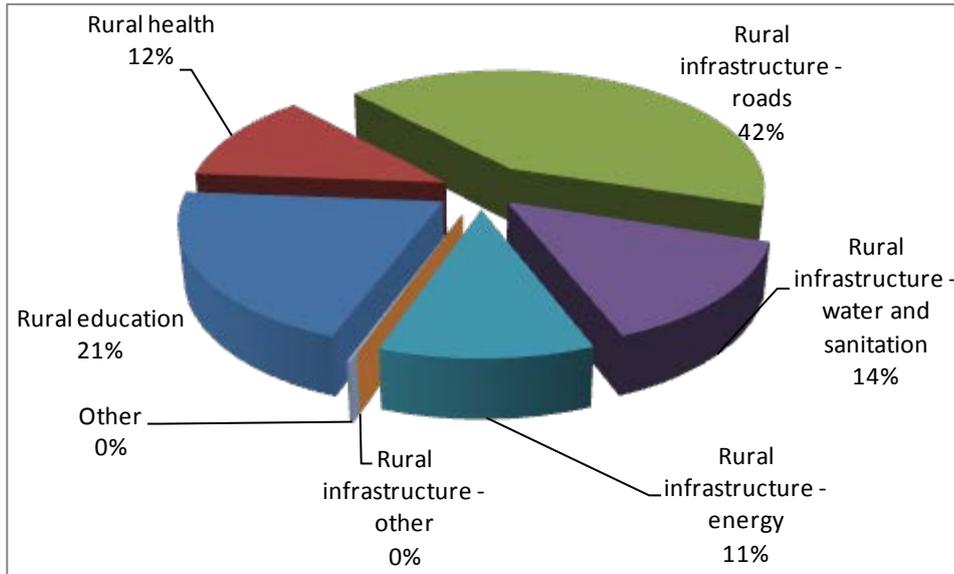
There was also some expenditure on other support to producers, but those accounted for a very small proportion of agriculture-specific spending. Other payments to agents in the agro-food sector included payments to processors, but these also accounted for a very small proportion of agriculture-specific spending. The importance of the latter two categories did not change over time. There were no direct payments to consumers, traders, transporters and inputs suppliers⁵.

The agriculture-specific expenditures are complemented by agriculture-supportive expenditures. They accounted, on average, for about 55 percent of the overall support to food and agriculture sector in URT, but their relative importance in support to agriculture decreased over time. Among these expenditures, by far the largest were on rural infrastructure, particularly on rural roads, but also on rural water and sanitation and rural energy (Figure 8 and 9). Their relative importance in the agriculture supportive expenditures did not change over time. In total, more than two thirds of the agriculture supportive expenditures were spent on rural infrastructure. The remaining part of agriculture supportive expenditures was directed to rural health and rural education. The importance of these two latter categories changed over time, with rural education accounting for a bigger share of agriculture supportive spending in the first part of the analysed period, while rural health dominated in the second part of the analysed period.

⁴ [http://www.agriculture.go.tz/publications/english%20docs/ASDP%20FINAL%2025%2005%2006%20\(2\).pdf](http://www.agriculture.go.tz/publications/english%20docs/ASDP%20FINAL%2025%2005%2006%20(2).pdf)

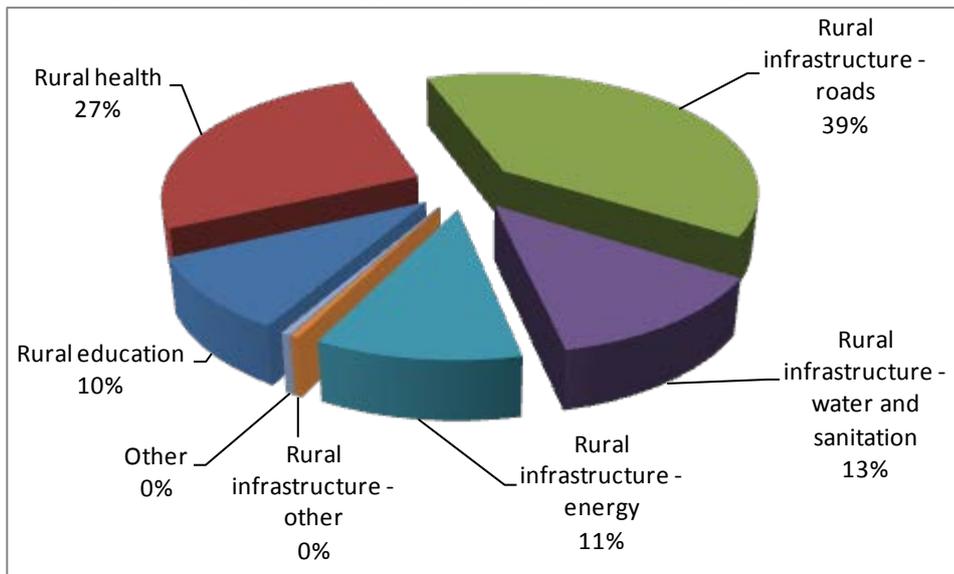
⁵ This conclusion is based on data the project has collected from the budget books (see Annex 2 for more details). However, as mentioned in the introduction section, the MAFAP project is aware of existence of some additional projects, e.g. school feeding programmes supported by the WFP, that could populate these categories, particularly the category of payments to consumers, and it is still attempting to collect the missing data. Nevertheless, the missing projects' expenditures are expected to be relatively small compared to those already captured in the database and hence would not change significantly the relative importance of spending categories, nor the overall conclusions.

Figure 8. Composition of agriculture supportive spending in Tanzania, average 2006/07-2007/08



Source: Own calculations based on data provided by the ESRF for the MAFAP project.

Figure 9. Composition of agriculture supportive spending in Tanzania, average 2008/09-2010/11



Source: Own calculations based on data provided by the ESRF for the MAFAP project.

Agriculture-specific expenditures can be also decomposed by commodities which they intend to support.⁶ Each expenditure measure within this category has been attributed an appropriate commodity depending on whether it supports an individual commodity (e.g. cashew nut for the Naliendele Cashew Nut Research Institute), a group of commodities (e.g. crops for the Accelerated

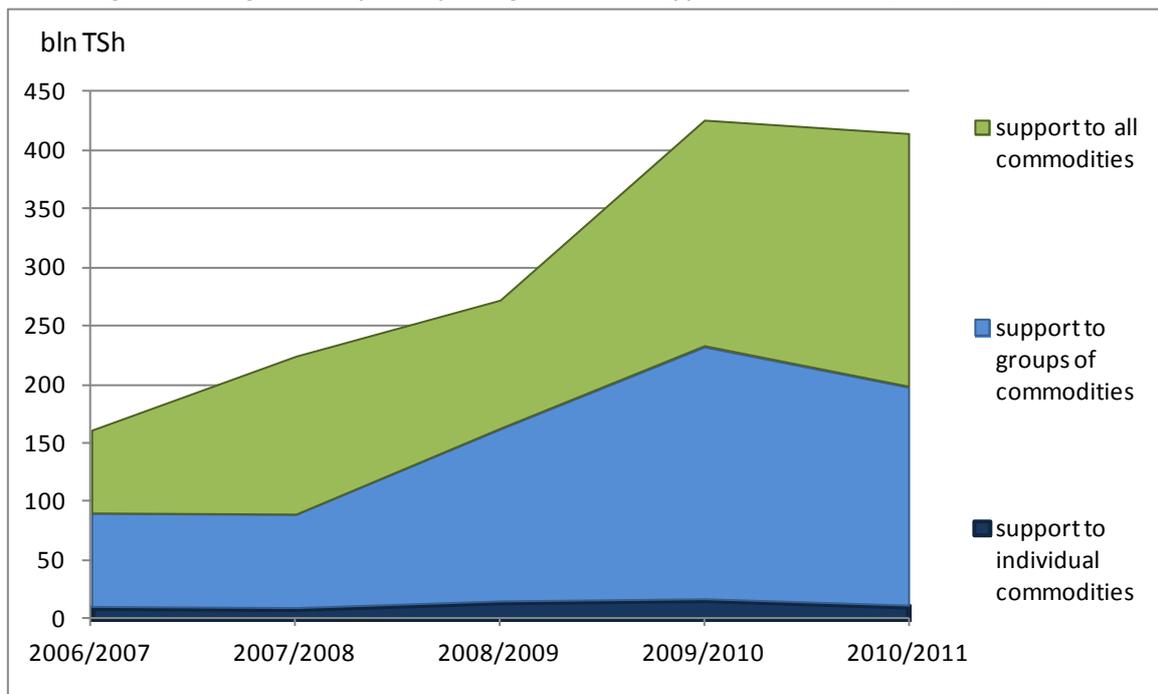
⁶ Agriculture-supportive expenditures, by definition, are not intended to support production of any particular commodity and hence are considered as not specific to agricultural commodities.

Food Security Project) or all commodities (e.g. Participatory Agricultural Development Empowerment Project - PADEP).

Generally, a large number of commodities is supported through these expenditures, among others, fish, coffee, tea, cashew nut, tobacco, sisal, sugar, pyrethrum, maize, rice, livestock products, apiculture products. Expenditures in support of all commodities and expenditures in support of groups of commodities were by far the most important throughout the analysed period (Figure 10). Support to individual commodities accounted for only a small proportion of agriculture-specific spending.

Among expenditures in support of individual commodities, the biggest share, on average, was targeted to fish, coffee and tea, followed by cashew nut, tobacco, cotton, sugar, pyrethrum, sisal and diary (Figure 11, left panel). Among expenditures in support of groups of commodities, the biggest part was absorbed by expenditures on maize and rice and all crops, followed by livestock products, forestry and apiculture products, cereals, forestry products, apiculture, cotton and coffee, and horticulture (Figure 11, right panel).

Figure 10. Agriculture-specific spending in Tanzania: support to commodities, 2006/07-2010/11

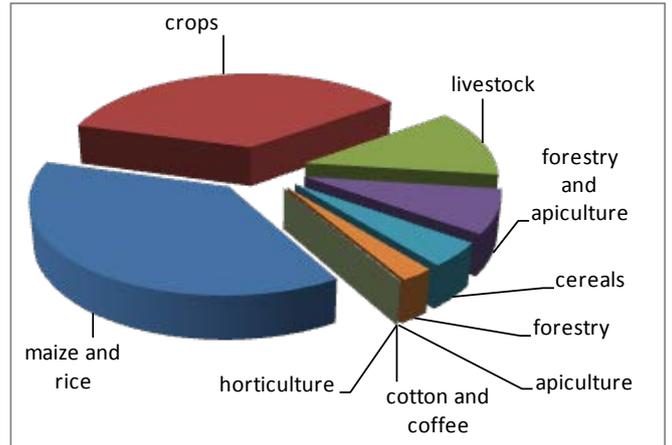
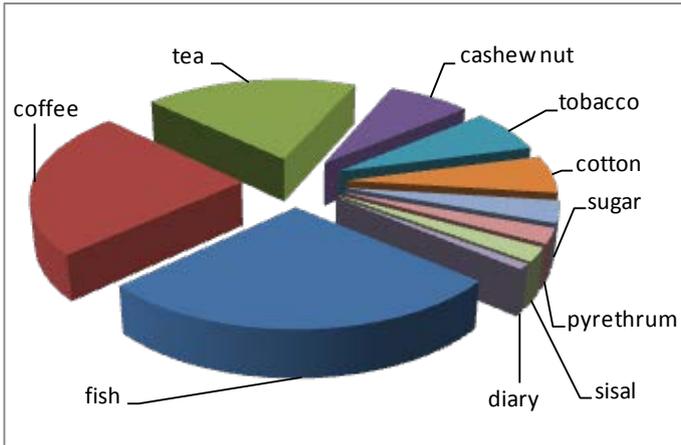


Source: Own calculations based on data provided by the ESRF for the MAFAP project.

Figure 11. Support to individual and groups of commodities in Tanzania, average 2006/07-2010/11

individual commodities

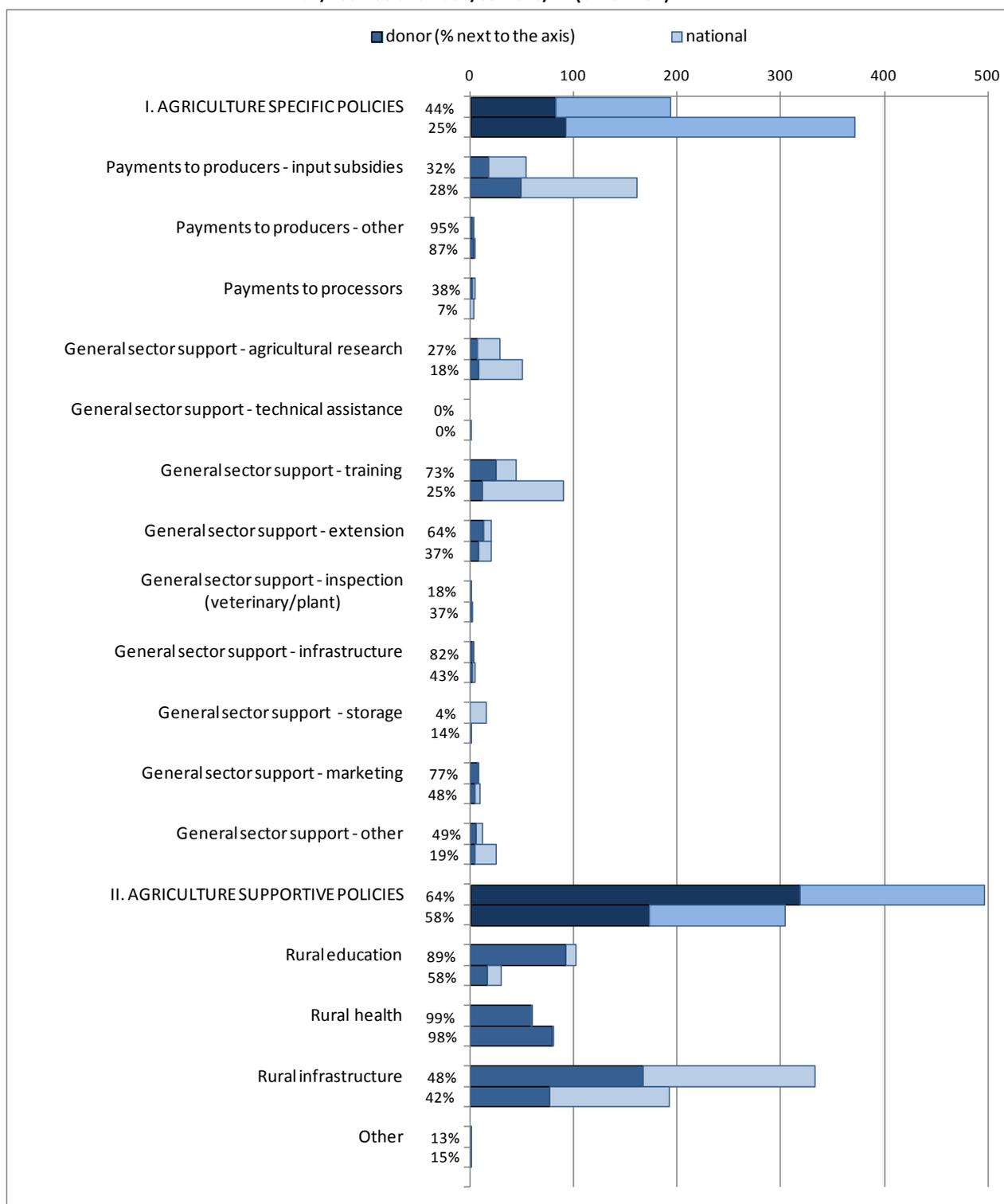
groups of commodities



Source: Own calculations based on data provided by the ESRF for the MAFAP project.

Overall, most public expenditures are aimed at the provision of public services and investments, with a relatively strong focus on infrastructure, but also on training, extensions services and research. However, there is a rapidly growing spending on input subsidies to agricultural producers, particularly subsidies to variable inputs.

Figure 12. Average shares of aid in public expenditures in support of food and agriculture sector in Tanzania, 2006-07/2007-08 and 2008/09-2010/11 (billion TSh)



Note: upper bar corresponds to 2006/07-2007/08 average and lower bar to 2008/09-2010/11 average.

Source: Own calculations based on budgetary data collected by the ESRF for the MAFAP project

6. Role of aid in agriculture related public expenditures in Tanzania

Donors' aid to the Government of The United Republic of Tanzania seems to be consistent with the overall government's areas of spending, although there are some differences in priorities. On average, in the 2006/07-2007/08 period, donor spending accounted for about 60 percent of overall public expenditures in support of the food and agriculture sector in URT. External aid contributed to 44 percent of agriculture-specific measures and to 64 percent of agriculture supportive measures (Figure 12).

In the 2008/09-2010/11 period, the share of donor support decreased and contributed to only about 40 percent of spending in support of food and agriculture sector development. The contribution to agriculture-specific expenditures was at about 25 percent, while to agriculture supportive expenditures at 58 percent of total spending.

Within each of the main categories, the contribution of aid differs. Among agriculture-specific expenditures, in terms of proportion of total spending, donors contributed the most to other payments to producers, marketing, infrastructure, training, and extension services throughout the whole period. In terms of the level of spending, training and input subsidies to agricultural producers received the highest support, both in the first and second part of the analysed period. Among agriculture supportive measures, the highest share of donor support was directed to rural health. This is also the most donor supported category – it is almost entirely financed from donor funds.

Technical assistance is the only category of spending that did not receive any donor support.

7. Analysis of public expenditures

Despite the increased emphasis on the agriculture sector development, the growth of the agriculture sector in URT falls below the target value of 6 percent recommended by CAADP. The observed patterns of public expenditures in support of food and agriculture development suggest that they are not contributing to the sector's growth in an optimal way for a number of reasons.

First, the trends in the overall level of public expenditures in support of food and agriculture sector development in URT are of concern. Despite the government's efforts to mainstream development of the agriculture sector, the share of agriculture in the total government budget has been falling since 2007/08 and it is currently below the Maputo declaration target.

Second, the composition of public expenditures in support of agriculture could still be improved. The composition of public expenditures is just as, if not more, important than the total level. There may be trade-offs between spending in different categories (for example spending on rural infrastructure versus subsidies for seed and fertiliser) and there may be complementarities (for example between spending on extension services and the development of infrastructure that would enable farmers to get their output to the market). Although the overall observed pattern of spending is consistent with government objectives and investment priority areas, there seem to be an imbalance between particular categories of spending. The high investments in rural infrastructure and expenditures on extension services provision can bring benefits via lower transaction costs and improve farmer's access to markets. High support to rural development can provide off-farm employment opportunities in the future, while expenditures on research, training and extension services can help farmers in improving their productivity and help in adopting more environmentally friendly production methods. Spending in these latter three categories has the highest chances to bring positive outcomes in terms of agricultural growth and poverty reduction the long run⁷.

On the other hand, there are relatively few investments in construction of markets (concluding from projects placed in the marketing category), very few investments in feeder roads (concluding from projects placed in the agriculture-specific infrastructure category) and no expenditures on storage. Similarly, there is very little expenditure on veterinary/inspection services that are necessary to accompany pest and disease control efforts at the farm level. Further, there is a rapidly increasing budget for provision of subsidies on variable inputs. Between 2006/07 and 2009/10 budgeted expenditure on input subsidies increased six times.

Although in 2010/11 it decreased, it was still more than three times higher than at the beginning of the analysed period. Input subsidies may be an important policy instrument to stabilise producers' incomes in developing countries in the short run, however, they should not compromise allocation of resources to those categories of spending that will improve the incomes over the long run (for a in-depth discussion, see OECD, 2012a and Brooks and Wiggins, 2010).

⁷ Several recent studies concluded that investments in agricultural R&D bring much better outcomes in terms of agriculture growth and poverty reduction. See FAO (2012b) for an overview of studies on comparing the impact of different types of agricultural expenditures and investments.

According to the World Bank (WB, 2010), while the recent increase in spending on some inputs, such as NAIVS, is justifiable because NAIVS is a well-designed, smart input subsidy that is market-based, promotes private sector and induces supply response in the short-run, an input provision should be temporary and phased out as planned, particularly as they may compromise increasing allocations to provision of the core public goods including agricultural research, extension services, veterinary and inspection services and investments in agriculture-specific infrastructure including feeder roads, where additional allocations of funds are clearly needed.

Third, data collected for the MAFAP project demonstrate that the rates of actual spending to budget allocation in URT are low, as reported in Table 5. Actual spending may vary significantly from the budgeted amounts, particularly in those developing countries, where budgets depend, to a large extent, on donors' disbursements and that operate a cash budget system as it is the case in URT. This may occur for several reasons:

- budget allocation may misjudge the true requirements;
- budget allocations may be re-adjusted during the fiscal year;
- funds may be released with a delay or not released at all if there are unforeseen calls on available funds.

The budget execution was much worse in case of policy transfers than in case of administrative costs. Administrative costs are mostly financed from the recurrent budget and are expected to have a better disbursement rate. In case of URT, the actual spending on policy administration costs was almost equal to the budgeted amounts, except for the two most recent years. In 2009/10 fiscal year, the disbursement rate was more than 100 percent suggesting that more money was spent on policy administration costs than initially envisaged in the budget. This may occur if substantial budget revisions are made during the fiscal year and decisions are made to allocate more money to administration, for example, on recruitment of ministry staff.

In 2010/11, however, the disbursement rate was much lower than in the previous years. This also can be explained by budget readjustments. Further, given that the data for the most recent year are only provisional, and particularly for the actual spending, based on estimates, they may be inaccurate and lead to the underestimation of the true disbursement rate. On the other hand, the budget execution of policy transfers was, on average, much lower than of policy administration costs. Although for the two first years of the analysed period the disbursement rate was very good, it decreased significantly as of 2008/09. The main explanation behind these results is the unanticipated impact of the global financial crisis that required budget reallocations, mainly from MAFSC to the treasury's emergency support for commercial banks. Other important reasons include: delays in meeting requirements of donor funds release (particularly in case of ASDP), problems with project implementation related to technical difficulties in procurement procedures and untimely fund releases to the LGAs (WB, 2010). Budget execution rates should be improved to increase the efficiency of expenditures in support of food and agriculture sector development.

Table 5. Budget allocations versus actual spending in Tanzania (billion TSh)

	2006/07	2007/08	2008/09	2009/10	2010/11 ^p
Total agricultural budget ¹					
budgeted amount	616.0	891.7	1143.3	1198.9	944.5
actual spending	584.5	878.4	825.1	759.3	728.0
actual as a share of budget (%)	95	99	72	63	77
Policy transfers					
budgeted amount	585.1	832.4	1063.7	1085.3	826.9
actual spending	553.9	823.1	746.0	630.2	648.5
actual as a share of budget (%)	95	99	70	58	78
Administration costs					
budgeted amount	30.9	59.3	79.6	113.6	117.6
actual spending	30.6	55.4	79.1	129.1	79.5
actual as a share of budget (%)	99	93	99	114	68

1. Total agricultural budget includes policy transfers in support of agriculture and policy administration costs

p - provisional estimate

Source: Own calculations based on budgetary data collected by the ESRF for the MAFAP project

Fourth, a large part of funds is allocated to policy administration costs and, based on the calculations done for MAFCS and MLDF, there seems to be an imbalance between the share of these costs and the share of policy transfers in the total expenditures, particularly for the most recent years (Table 6)⁸. The increased share of administration costs after 2008/09 may be partially explained by the reallocation of funds devoted to policy transfers due to financial crisis management, as mentioned above, however, they have substantially increased over the analysed period. Although, according to the World Bank (2010), there have been significant improvements made to the agricultural wage bill in the most recent year, further efforts are needed to balance the policy administration costs and the policy transfers.

Table 6. Share of policy transfers and administration costs in public expenditures of MAFSC and MLFD (%)

	2006/07	2007/08	2008/09	2009/10	2010/11 ^p
Administration costs	16	17	26	33	25

⁸ The projects and programmes included in the analysis cover several ministries (see section 3). It is not possible to identify all policy administration costs related to these projects and programmes which are managed by the ministries that also work on non-agricultural matters. Policy administration costs for these ministries cover several sectors and not only agriculture and the “agricultural” part cannot be clearly identified (see the methodology paper (MAFAP, 2010)). To compare “like with like” when calculating share of policy transfers and administration costs in the total budget, only spending of MAFSC and MLFD was considered.

Policy transfers	84	83	74	67	75
Total agricultural budget	100	100	100	100	100

p - provisional estimate

Source: Own calculations based on budgetary data collected by the ESRF for the MAFAP project

Addressing these issues will be crucial in improving performance of expenditures in support of food and agriculture sector development. However, whether addressing these problems will be reflected in improved agricultural growth will depend also on other factors of growth, which cannot be fully derived from public spending.

REFERENCES

Akroyd, S. and Smith, L. (2007) "Review of Public Spending to Agriculture. A joint DIFID/World Bank study". Oxford Policy Management

<http://www1.worldbank.org/publicsector/pe/pfma07/OPMReview.pdf>

AU (2003) "Declaration on Agriculture and Food Security in Africa". Annex 3 of the Assembly of the African Union, Second Ordinary Session, 10 - 12 July 2003, Maputo, Mozambique

Brooks, J. and Wiggins, S. (2010) "The use of input subsidies in developing countries". Paper presented at the Global Forum on Agriculture 29-30 November 2010, OECD

<http://www.oecd.org/dataoecd/50/35/46340359.pdf>

EAFF (2011) "Database of Agricultural Policies in East Africa: Kenya, Rwanda, Tanzania and Uganda". Publication of the Eastern Africa Farmers' Federation.

ESRF (2010) "Agriculture Sector Review and Public Expenditures Review 2010/2011" report submitted to the Ministry of Agriculture, Food Security and Cooperatives of the United Republic of Tanzania. November 2010.

Fan, S., Omilola, B. and Lambert, M. (2009) "Public Spending for Agriculture in Africa: Trends and Composition". ReSAKSS Working Paper No. 28

FAO (2012a) "The State of Food Insecurity in the World: Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition". FAO, Rome.

FAO (2012b) "The State of Food and Agriculture in the World: Investing in Agriculture for a Better Future". FAO, Rome.

Komorowska, J. (2010). A proposed methodology for measuring government expenditures in support of food and agriculture sector development and application in the case of Uganda. Technical Notes Series, MAFAP, FAO, Rome.

MAFAP (2010) "Monitoring African Food and Agricultural Policies project methodology: concept paper". Draft paper, www.fao.org/mafap

MAFSC (2009) "Agricultural Sector Review and Public Expenditures Review 2009/10". Draft report submitted by Unique Consortium of Consultancy Services Ltd. November 2009.

OECD (2012a) "Agricultural Policies for Poverty Reduction", OECD Publishing <http://dx.doi.org/10.1787/9789264112902-en>

OECD (2012b) "Investment Policy Review of Tanzania". Forthcoming.

TNBC (2009) "Ten pillars of Kilimo Kwanza. Implementation Framework". Tanzania National Business Council document, <http://www.tzonline.org/pdf/tenpillarsokilimokwanza.pdf>

URT (2005) "Agricultural Sector Development Programme (ASDP). Support Through Basket Fund". Government Programme Document

URT, AU, NEPAD (2010) "The Comprehensive Africa Agriculture Development Programme (CAADP) in Tanzania"

World Bank (2010) "Rapid Budget Analysis for Annual Review 2010/2011. Agriculture Sector".

WDI (2012) World Bank World Development Indicators database.

ANNEX 1: List of projects and programmes included in the analysis

Shaded rows are projects and programmes considered in the MAFAP definition of support to the agricultural sector in addition to those in the “traditional” definition of agricultural sector

Public expenditure measure	Implementing government body
RECURRENT BUDGET	
Contingencies non-emergency (subvote 2001)	Treasury
Prison farms (subvote 4003)	MHA-prison services
Administration and General (subvote 1001)	MAFC
Finance and accounts (subvote 1002)	MAFC
policy and planning (subvote 1003)	MAFC
Agriculture Training Institute (subvote 1004)	MAFC
internal audit unit (subvote 1005)	MAFC
procurement management unit (subvote 1006)	MAFC
Information, education and communication (subvote 1007)	MAFC
Legal unit (sub vote 1008)	MAFC
management information unit (sub vote 1009)	MAFC
environment management unit (subvote 1010)	MAFC
crop development (subvote 2001)	MAFC
agricultural mechanisation (subvote 2002)	MAFC
agricultural land use planning and management (subvote 2003)	MAFC
plant breeders'unit (subvote 2004)	MAFC
research development (subvote 3001)	MAFC
Cooperative development (subvote 4001)	MAFC
national food security (subvote 5001)	MAFC
strategic grain reserve (subvote 5002)	MAFC
commodity market development (subvote 4002)	MITM
Directorate of irrigation and technical (subvote 2004)	MWI
Rural water supply (subvote 4001)	MWI
drilling and dam construction agency (subvote 6001)	MWI
science and technology (subvote 3003)	MCST
forestry and beekeeping (subvote 3001)	MNRT
fisheries (subvote 3002)	MNRT
Administration and General (subvote 1001)	MLFD
finance and accounts(subvote 1002)	MLFD
policy and planning (subvote 1003)	MLFD
livestock research and training institute (subvote 1004)	MLFD
information, communication and education (subvote 1005)	MLFD
national livestock institute - MPWAPWA (subvote 1006)	MLFD
internal audit unit (subvote 1007)	MLFD
procurement management unit (subvote 1008)	MLFD
legal services unit (subvote 1009)	MLFD
veterinary services (subvite 7001)	MLFD

livestock identification, registration a (subvote 7002)	MLFD
pastoral system development (subvote 7003)	MLFD
central veterinary laboratories (subvote 7004)	MLFD
animal production (subvote 8001)	MLFD
fisheries development division (subvote 9001)	MLFD
acquaculture development division (subvote 9002)	MLFD
government subventions to internal institutions and parastatals	
Agricultural council of Tanzania	MAFC
Tanzania Official Seed Certification Institute	MAFC
Tanzania Fertilizer Regulatory Authority	MAFC
Tanzania Sisal Board	MAFC
Tanzania Sugar Board	MAFC
Tanzania Pyrethrum Board	MAFC
Tanzania Tea Board	MAFC
Tanzania Coffee Board	MAFC
Tanzania Tobacco Board	MAFC
Tanzania Cashewnut Board	MAFC
Tanzania Cotton Board	MAFC
Tanzania Cereal Board	MAFC
Agricultural Seed Agency (ASA)	MAFC
Tanzania smallholder Tea Dev. Agency	MAFC
Horticulture Development Council	MAFC
Agriculture Input Trust Fund	MAFC
National Sugar Training Institute	MAFC
Tobacco Research Institute - TORITA	MAFC
Tanzania Coffee Research Institute	MAFC
Tea Research Institute of Tanzania	MAFC
Naliendele Cashewnut Research Institute	MAFC
Ukiliguru Cotton Research centre	MAFC
Kibaha Sugar Research Centre	MAFC
Agricultural Research Institute- Mlingano	MAFC
Tanzania Pesticides Research Institute	MAFC
National Food Security Agency	MAFC
Centre for Agri.Mech. And Rural Tech. (CAMARTEC)	MITM
Small Industries Development organisation (SIDO)	MITM
Tanzania warehouse licensing Board	MITM
Sokoine University of Agriculture (SUA)	MEVT
university of Dar es Salaam - agriculture	MEVT
Moshi University college Co-op and Business - agriculture	MEVT
Tanzania Food and Drugs Authority (TFDA)	MHSW
Tanzania Food and Nutrition centre	MHSW
Rural Electrification Agency	MEM
Tanzania Forestry Research Institute	MNRT
Forest Training Institute	MNRT

Beekeeping training Institute	MNRT
Tanzania Tree Seed	MNRT
Tanzania Fisheries Research Institute	MLDF
Tanzania Dairy Board	MLDF
Tanzania meat board	MLDF
DEVELOPMENT BUDGET	
Small Entrepreneurs Loan Facilities (SELF)	Treasury
National Income Generation Programme (NIGP)	Treasury
cooperative reform and modernisation programme	CDC
TASAF	PO
Lake Tanganyika Environment management programme	V-PO
Agricultural markets system development programme (ASMDP)	PMO
Rural financial services programmes	PMO
Tanzania Multi- Sectoral AIDS project (TMAP)	MAFC
Public sector Reform Programme II (PSRP ii)	MAFC
Public sector Reform Programme II (PSRP ii)	MAFC
Agriculture Sector programme support	MAFC
Agriculture Sector Development Programme (ASDP)	MAFC, PMO-RALG, MWI, MITM, MLFD
District Agriculture Sector Investment Programme (DASIP)	MAFC
Public sector Reform Programme II (PSRP ii)	MAFC
Environment Management Act (EMA) - implementation support programme	MAFC, PMO-RALG, MLFD, V-PO
Participatory Agricultural Development Empowerment Project (PADEP)	MAFC
Special programme for food security	MAFC
Cleaner integral utilisation of sisal waste project	MAFC
Accelerated food security project	MAFC
comprehensive agriculture development lower Rufiji	MAFC
Lake Victoria environment management project	MAFC
Agriculture land use planning and manage	MAFC
Soil and water conservation	MAFC
Tanzania Tea Research	MAFC
Agriculture Training Institute	MAFC
Stabex coffee	MAFC
Cooperative Reform and Modernisation programme	MAFC
Tanzania mini Tiger plan 2020	MITM
EPZ Development	MITM
BEST project	MITM
Rural micro, small and medium Enterprises	MITM
Improvement of Cotton/ coffee marketing	MITM
Legal sector reform programme	MITM
rehabilitation of schools and colleges	MEVT
Unicef support to education	MEVT
primary education development programme	MEVT
improvement of primary education	MEVT

Provision of Secondary Education	MEVT
Secondary Education Development programme (SEDP)	MEVT
implementation of BEST programme	MLHSSD
village demarcation and ground photo	MLHSSD
expansion and rehabilitation of rural water supply	MWI
borehole drilling and dams construction	MWI
Rehabilitation of rural water	MWI
rural water supply and sanitation	MWI
Rehabilitation of rural water	MWI
management support to LGAs	MWI
Tunduma-Sumbawanga Road construction	MF
Namtumbo-Songea Road construction	MF
Peramiho-Mbinga Road construction	MF
Tanga-Horohoro Road construction	MF
Zanzibar rural roads-construction	MF
health sector development programme	MHSW
HIV / AIDS Control programme	MHSW
Tanzania food and nutrition centre	MHSW
TB/Leprosy control Programme	MHSW
Tanzania food and drugs authority	MHSW
Rural water supply and sanitation programme	PMO-RALG
Village travel and Transport programme	PMO-RALG
Primary Education development programme (PEDP)	PMO-RALG
Participatory Forest Management	PMO-RALG
land management programme	PMO-RALG
Primary Health service Development programme	PMO-RALG
District Health infrastructure	PMO-RALG
Rural Energy Services	MEM
Rural Electrification	MEM
Rural Energy Agency and rural energy fund	MEM
Rural pv- market (Barrier removal)	MEM
Rural electrification projects (spanish phase iiic)	MEM
Wayleave Villages Electrical Scheme	MEM
ERT (village Electrification)	MEM
Forest policy implementation support	MNRT
marketing of bee products	MNRT
Participatory forest management	MNRT
support to forest national programme	MNRT
National forest resource monitoring and assessment (NAFORMA)	MNRT
UNDP support programme	MNRT
Rural roads (Subvote 7001)	MID/MW
Transport infrastructure division (subvote 2005)	MID/MW
Tanzania Meteorological Agency (TMA) radar	MID/MW
Roads division	MID/MW

public sector reform programme	MLFD
Tanzania Multi- Sectoral HIV/AIDS project (TMAP)	MLFD
Livestock disease control	MLFD
National diary and rangeland development	MLFD
Marine and coast Enviroment management project (MACEMP)	MLFD
UNDP support programme	MLFD

ANNEX 2: Data and Data Sources

The data required to conduct an in-depth public expenditure analysis under MAFAP project include the following:

- ❖ At a detailed level (i.e. at the individual expenditure measure) policies that generate transfers in support of food and agriculture sector including:
 - detailed description of policy implementation criteria (for whom, how, for which commodity, under which conditions);
 - actual expenditure;
 - source of funding (national and/or aid);
 - government level that implements the policy (national/subnational).
- ❖ At an aggregate level (i.e. for the whole sector/agencies involved as defined above):
 - proportion of administrative costs in total expenditures;
 - recurrent versus development budget;
 - ratio of actual spending and budget allocations;
 - share of aid in budget allocations and share of aid in actual spending;
 - aid type – loans versus grants;
 - off-budget expenditures.

The analysis covers expenditures of the following government bodies (see Section 2 for more details): Ministry of Agriculture, Food Security and Cooperatives, Ministry of Livestock Development and Fisheries, Ministry of Water and Irrigation Development, Ministry of Industry, Trade and Marketing, and Prime Minister's Office - Regional Administration and Local Government, Ministry of Finance, Ministry of Communication, Science and Technology, Ministry of Energy and Minerals, Ministry of Lands, Housing and Human Settlements Developments, Ministry of Health and Social Welfare, Ministry of Natural Resources and Tourism, Ministry of Education and Vocational Training, Ministry of Works, Prime Minister's Office, President's and Vice-President's Offices, Ministry of Home Affairs, Treasury and Cooperatives Development Commission. All relevant expenditure measures from these ministries and government institutions have been identified and included in the analysis.

The main source of data on public expenditures was the Ministry of Finance (MF) and the Ministry of Agriculture, Food Security and Cooperatives (MAFC). The team thoroughly revised the following approved budget books for the financial years 2005-2006 to 2011-2012:

- Volume II Estimates of Public Expenditure Consolidated Fund Services (Section II) and Supply votes (Regional);

- Volume II Estimates of Public Expenditure Consolidated Fund Services (Section I) and Supply votes (Ministerial);
- Volume IV – Public expenditure Estimates –Development Programmes (Part B) District Councils;
- Volume IV – Public expenditure Estimates –Development Programmes (Part A) Ministerial and Regional Development Programmes.

Only printed versions of the documents were available and thus, data on approved budget and actual expenditure, both for national and donor funds, was taken and inserted in an Excel workbook. Since the information on individual projects available in these books is quite limited, discussions with budget officers was necessary to get additional details which allowed classifying each project in accordance to the MAFAP requirements. This exercise was challenging especially in getting the relevant budget officers for detailed discussions on each vote and sub-votes per each ministries and agencies. Where data on actual spending and/or donor spending were not available, estimation methods were applied to fill in missing values.

The additional consultations with experts from various ministries allowed assessing that a small number of donor supported projects may not be captured in the budget books. Particularly, we are aware of the school feeding programme supported by the WFP. The project is still attempting to collect the missing data. Nevertheless, including the missing data is not expected to change the results in any significant way, particularly the composition of spending analysis, given that they would account for a relatively small share of expenditures already captured in the analysis.

Finally, some of the information was not available in the databases identified at the country-level. In particular, we failed to identify the source of data that would allow us to estimate the proportion of loans and grants in the total aid. Neither could we collect the information on off-budget expenditures. The external data sources, such as the OECD Creditor Reporting System database may help to fill that gap. These sources of data are currently being explored.

All data have been collected and processed by the Economic and Social Research Foundation (ESRF) and the MAFC who are the project's main technical partners in URT, under close guidance from the MAFAP Secretariat.

ANNEX 3: summary of main methodological concepts

Main concepts

The methodology proposes to capture all public expenditures that are undertaken in support of food and agriculture sector development. That includes expenditures from the national budget, either central or regional government, regardless of the ministry that implements the policy, and external aid, provided either through local governments or specific projects conducted by international organisation or NGOs.

The primary focus is on the food and agriculture sector, however, for some countries forestry and fisheries may be an important part of rural activity and are also included in the scope of the project.

We seek to capture all public expenditures in the rural areas, such as rural infrastructure, rural education and rural health, as they may also have an important role in agriculture's sector development, even if they are not specific to the sector.

Expenditure measures generate explicit or implicit monetary transfers to supported individuals or groups. We consider all those expenditure measures that generate explicit or implicit monetary transfers in support of food and agriculture sector development. These measures are divided into two main categories of expenditures: agricultural-specific expenditures and agricultural supportive expenditures. Agricultural-specific expenditures include those measures that generate monetary transfers to agricultural agents or sector as a whole. The agents, or the sector as a whole, must be the only, or the principal recipient of the transfers generated by the expenditure measure. Agriculture supportive measures should include measures that are not strictly specific to agriculture sector, but that have strong influence on agricultural sector development such as investments in rural development. All the measures that comply with these criteria are considered, regardless their nature, objectives or perceived economic impacts.

Further, general expenditure measures available throughout the entire economy are not considered, even if they generate monetary transfers to agricultural sector.

Finally, the expenditure measures are considered and classified according to the way in which they are implemented and not on the basis of their objectives or economic impacts.

Classification and disaggregation

Many expenditures of greatest relevance to agricultural development, in terms of their ability to expand the production frontier, may not be specific to agriculture, but could fall into other categories. Moreover, support can be provided in several different ways. Support to agricultural producers may be provided via reduced input prices (e.g. a fertiliser subsidy), cost sharing for fixed capital (e.g. machinery), revenue foregone by the government (tax concession), reimbursement of taxes or charges or services in kind (e.g. delivery of extension services). Agriculture-specific support to the sector more generally may be provided via spending on agricultural education, research, marketing of agricultural goods, irrigation etc. Some policies which benefit agriculture may be even more general, such as expenditures on rural infrastructure, rural education or rural health. Although

the latter are not sector specific, they may be sector supportive. In order to capture all public expenditures in support of the food and agriculture sector, the following breakdown is proposed:

1. A broad distinction between policies that are: agriculture-specific, agriculture supportive and non-agricultural expenditures.
2. Within the agriculture-specific category, a distinction between support to producers and other agents in the value chain, and general sector support. The agents in the value chain include farmers (producers), input suppliers, processors, consumers, traders and transporters.

The detailed classification of support follows the OECD's principle of classifying policies according to their economic characteristics i.e. the way they are implemented, which provides the basis for further policy analysis (OECD, 2008). The particular categories, however, should be designed to reflect the types of policies applied in African countries.

Likewise, the categories proposed in the box below have been elaborated based on the experience of various agencies, including FAO (e.g. FAO, 2006), working on public expenditures in developing countries (for a comprehensive overview, see MAFAP, 2010c). Further, drawing on the OECD's experience, the classification proposed aims at distinguishing, to the extent possible, policies providing private goods as opposed to public goods, given their different economic effects.

Proposed classification of public expenditures in support of the food and agriculture sector

I. Agriculture-specific policies – monetary transfers that are specific to agriculture sector i.e. agriculture is the only, or major, beneficiary of a given expenditure measure

I.1. Payments to the agents in the agro-food sector – monetary transfers to the agents of agro-food sector individually

I.1.1. Payments to producers – monetary transfers to individual agricultural producers (farmers)

A. Production subsidies based on outputs – monetary transfers to agricultural producers that are based on current output of a specific agricultural commodity

B. Input subsidies – monetary transfers to agricultural producers that are based on on-farm use of inputs:

- **variable inputs** (seeds, fertiliser, energy, credit, other) – monetary transfers reducing the on-farm cost of a specific variable input or a mix of variable inputs
- **capital** (machinery and equipment, on-farm irrigation, other basic on-farm infrastructure) – monetary transfers reducing the on-farm investment cost of farm buildings, equipment, plantations, irrigation, drainage and soil improvements
- **on-farm services** (pest and disease control/veterinary services, on-farm training, technical assistance, extension etc., other) – monetary transfers reducing the cost of technical assistance and training provided to individual farmers

C. Income support – monetary transfers to agricultural producers based on their level of income

D. Other – monetary transfers to agricultural producers individually for which there is insufficient information to allocate them into above listed categories

I.1.2. Payments to consumers – monetary transfers to final consumers of agricultural commodities individually in form of:

E. food aid – monetary transfers to final consumers reducing the cost of food

F. cash transfers – monetary transfers to final consumers to increase their food consumption expenditure

G. school feeding programmes – monetary transfers to final consumers providing free or reduced-cost food in schools

H. other – monetary transfers to final consumers individually for which there is insufficient information to allocate them into above listed categories

I.1.3. Payments to input suppliers – monetary transfers to agricultural inputs suppliers individually

I.1.4. Payments to processors – monetary transfers to agricultural commodities processors individually

I.1.5. Payments to traders – monetary transfers to agricultural traders individually

I.1.6. Payments to transporters – monetary transfers to agricultural commodities transporters individually

1.2. General sector support – public expenditures generating monetary transfers to the agro-food sector agents collectively

I. Agricultural research – public expenditures financing research activities improving agricultural production

J. Technical assistance – public expenditures financing technical assistance agricultural sector agents collectively

K. Training – public expenditures financing agricultural training

L. Extension/technology transfer – public expenditures financing provision of extension services

M. Inspection (veterinary/plant) – public expenditures payments financing control of quality and safety of food, agricultural inputs and the environment

N. Infrastructure (roads, non-farm irrigation infrastructure, other) – public expenditures financing off-farm collective infrastructure

O. Storage/public stockholding – public expenditures financing public storage of agro-food products

P. Marketing – public expenditures financing assistance in marketing of agro-food products

R. Other – other transfers to the agro-food agents collectively for which there is insufficient information to allocate them into above listed categories

II. Agriculture supportive policies – public expenditures that are not specific to agriculture, but which have a strong influence on agricultural sector development

S. Rural education – public expenditures on education in rural areas

T. Rural health – public expenditures on health services in rural areas

U. Rural infrastructure (rural roads, rural water, rural energy and other) – public expenditures on rural infrastructure

V. Other – other public expenditures on rural areas benefiting agricultural sector development for which there is insufficient information to allocate them into above listed categories

For more details on MAFAP methodology on measurement of public expenditures in support of food and agriculture sector development, see Komorowska (2010).

ANNEX 4: MAFAP public expenditure analysis and existing work on public expenditure reviews

The following table describes the main differences between traditional public expenditure reviews, such as those performed by the World Bank, and MAFAP public expenditures analysis. Scope, ministries and institutions covered, classification and disaggregation of expenditures, as well as treatment of administrative costs are among the most important areas where the two approaches differ. However, the two approaches should not be considered as substitutes, but rather as complementary. In particular, MAFAP complements the work done by the World Bank by further disaggregating categories of spending. By classifying expenditures based on the way they are implemented, it also allows analysis of the incidence of the different expenditure measures that provides a more comprehensive understanding of potential economic impacts of spending patterns in a given country.

	WB PER	MAFAP PE analysis
Scope	Agriculture-specific measures	Agriculture specific and agriculture supportive (rural development e.g. health, education, infrastructure)
Ministries and institutions covered	All ministries of agriculture and its agencies (sometimes also votes falling into agricultural sector budget e.g. in URT the rapid budget appraisal included Ministry of Agriculture, Food Security, and Cooperatives and the Ministry of Livestock Development and Fisheries and selected votes of other ministries that are included in the definition of agriculture budget)	All ministries and agencies that manage measures that support only or mainly agricultural sector.
Classifications and disaggregation	Typically based on policy objectives and derived from existing groupings or disaggregation in the country (and hence differ from country to country); Two types of disaggregation: by function (similar to MAFAP, but more aggregated and not based on implementation criteria) and economic area e.g. recurrent vs development Budgeted amounts versus actual spending	Classification based on how measures are implemented (“economic characteristics” of measures) and the same for all countries. More detailed and containing more information on individual measures. Split by economic area – recurrent versus development etc. Budgeted amounts versus actual spending
Admin costs	Included in the classification	Excluded from the main classification, treated separately.
Aid	At country level: included in the classification and further analysis; analysis of off-budget expenditures	At country level: included in classification and further analysis; analysis of off-budget expenditures Additionally, analysis of aid to agriculture at the donors level (donor commitments and disbursements to be contrasted with country level expenditures financed from aid)
Analysis	Analysis of trends in overall level of expenditures	Analysis of trends in overall level of expenditures

Technical – capacity to use resources at a cost that achieves efficiency gains (actual spending versus budgeted amounts; cost effectiveness of programmes and tracking surveys that follow the money throughout the whole system from the budget to the recipient)

Allocative efficiency – degree to which resources are allocated in conformity with government objectives and highest returns (depending on the depth of the study, the latter is done either by contrasting with existing indicators or appropriate specific survey, econometric or modelling techniques)

The depth of the analysis applied depends on the particular PER.

Contrasting budgeted amounts with actual spending.

Analysis of share of administrative costs in the total spending in support of the sector.

Analysis of the alignment of categories of spending with government objectives and complementarities/trade-offs between different categories of spending.

Analysis of whether spending addresses the areas of need (when put together with other MAFAP indicators).

Analysis of whether spending occurs in categories with highest returns, but only by contrasting with existing indicators

Depth of analysis always the same.



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