MAFAP
SPAAA

Monitoring African Food and Agricultural Policies

Suivi des politiques agricoles et alimentaires en Afrique

Assessing coherence of price support policies and public spending in West and East Africa

DRAFT VERSION

JULY 2013

Authors

This study was drafted by the Monitoring African Food and Agricultural Policies team, composed of Léopold Ghins (FAO), Hélène Gourichon (FAO), Amos Kienou (DGPER, Burkina Faso), Francine Ilboudo (DGPER) and Alban Mas Aparisi (FAO).

The study has also benefitted from contributions and comments by Jean Balié (FAO), Jesus Barreiro-Hurlé (FAO), Stefania Croce (FAO), Richard Guissou (DGPER), Catherine Moreddu (OECD) and Jakob Skoet (FAO).

It was edited, and translated, by Ashleigh Rose.

Acknowledgements

Public spending data were collected and analysed by the MAFAP teams in Burkina Faso, Kenya, Mali, Uganda, and Tanzania. The materials upon which this study is based could not have been obtained without their dedicated and patient work, and they deserve many thanks. The individual technical notes on each of these countries are available at the MAFAP website: http://www.fao.org/mafap/home/en/

The work carried out by Joanna Ilicic-Komorowska (OECD) on the MAFAP methodology for analyzing public expenditure, and on the public spending data base, as well as her drafting of technical notes has been invaluable.

Lastly, the qualitative data on agricultural and food policies in each of the five countries, collected by the Food and Agriculture Policy Decision Analysis (FAPDA) of the FAO, represent a significant contribution to the this study.

Acronyms

CAADP: Comprehensive Africa Agriculture Development Programme

DGPER: Rural Economics Division of the Ministry of Agriculture

FAO: Food and Agriculture Organization

FAPDA: Food and Agriculture Policy Decision Analysis

MAFAP: Monitoring African Food and Agricultural Policies

MDG: Millennium Development Goal

NAIP: National Agricultural Investment Plan

NEPAD: New Partnership for Africa's Development

NPRS: National Programme for the Rural Sector

OECD: Organization for Economic Co-operation and Development

SAGSD: Strategy of Accelerated Growth and Sustainable Development

WFP: World Food Programme

Table of Contents

List of Figures

List of Tables

Context of the Study

This study was requested of the Food and Agriculture Organization of the United Nations (FAO) by the NEPAD Planning and Coordinating Agency (NPCA). Its purpose is to fuel discussion of the coherence of African agriculture policy within the framework of the Comprehensive Africa Agriculture Development Programme.

This study was carried out by the Monitoring African Food and Agricultural Policies team (MAFAP) of the FAO. Through the MAFAP, FAO works with national partners in 10 African countries in order to establish an ongoing monitoring system for the impacts of agriculture and food policies. Via the MAFAP, FAO has developed common indicators for the monitoring of public spending on agriculture, policies impacting the prices of basic products, and the coherence of agriculture policy. The objective of this study is to allow decision makers and donors to understand whether their policies are coherent, and to compare results between countries and time periods. Some of the results obtained in five MAFAP countries have been used and compared for the purposes of this study.

This study was carried out jointly by the Burkina Faso MAFAP team (based out in the General Directorate for the Promotion of the Rural Economy, Ministry of Agriculture) and the MAFAP team of the FAO, in Rome.

Introduction

African countries, aware that their socio-economic futures are intimately linked, have nearly all chosen to join the African Union, the regional organization founded in 2002. Since its creation, the African Union has established agriculture as a development priority for its member states, particularly via the 2003 Maputo declaration, with which each State undertook to spend 10 percent of their national budget on rural and agricultural development in order to generate a 6 percent growth rate in the agricultural sector.

The operational framework of this commitment is the Comprehensive Africa Agriculture Development Programme (CAADP), the implementation of which is verified by the New Partnership for Africa's Development (NEPAD), which in turn is part of the African Union. Within the framework of the CAADP, Member States have undertaken to pursue rural and agricultural development objectives on the basis of four pillars: water and land management, market access, food security, and agricultural research.

The present study proposes to analyze the policies adopted by five African States from 2005 to 2010, two in West Africa (Mali and Burkina Faso) and three in East Africa (Kenya, Uganda, and Tanzania). The policy methods adopted by these States to stimulate rural and agricultural development are presented, and the coherence of these policy options, with each other and with CAADP commitments, is evaluated. This study is based on work carried out by the United Nations Food and Agriculture Organization (FAO) within the framework of the Monitoring African Food and Agriculture Policies (MAFAP). It should be noted that the policy coherence assessment proposed below is of an analytic nature, and is not a monitoring and evaluation activity, particularly since the 5 countries in question signed their CAADP implementation plans between 2009 and 2010.

The study therefore consists of a review of the strategic frameworks adopted by the five States mentioned above (I), a review of policy decisions and an analysis of public spending (II), followed by an analysis of the coherence of the policies adopted by the States in question (III)

Scope and Methodology

This study focuses on the period 2005-2010, which is the analysis period within the MAFAP program of the FAO. It targets Burkina Faso, Mali, Uganda, Kenya, and Tanzania.

The first part of the study, the overview and comparative analysis of strategic frameworks and policy decisions, presents a summary of the policy objectives that flow from the strategic frameworks adopted by the five States. This overview necessitated an exhaustive review of policy documents in each country.

The second part of the study offers a panorama of the main policy decisions in each State, which allows for a comparison between the policy objectives announced and the decisions adopted in practice. This subsection makes considerable use of the policy context analysis outlined in the technical notes and country reports published by the MAFAP project, as well as the work of the FAO Food and Agriculture Policy Decisions Analysis (FAPDA). This section then concentrates on public spending on agriculture and the rural sector in the five States. The public expenditure analysis methodology of the MAFAP project is used. That methodology entails a disaggregated analysis of public spending on the rural and agricultural sector that concentrates on its composition.

Through the use of a typology derived from the Organization for Economic Co-operation and Development (OECD) classification of public spending, the MAFAP methodology classifies and describes the precise nature of rural and agricultural development activities supported by public spending. The MAFAP public spending analysis also provides information on the portion of aid per activity, the portion of actual spending, and the portion of administrative costs. Spending can also be disaggregated per commodity. Although the MAFAP methodology is more disaggregated and analytic than the Classification of the Functions of Government (COFOG) recommended to Member States by the NEPAD, it is still compatible with that recommendation[1].

The second part therefore uses the public expenditure monitoring work carried out by the MAFAP teams in each of the five countries, whose sources are generally the Ministry of Finance and the Ministry of Agriculture.

The third part of the study deals with policy coherence. The analyses presented in the first two sections are used to compare policy frameworks with the policy decisions and public spending actually implemented. This analysis of the coherence between objectives and decisions concludes with an analysis of each country's policies and whether they are consistent with CAADP objectives. This work, although it is based on the extensive existing literature on policy coherence, does not apply any particular methodology; rather it uses the work carried out by the MAFAP in each country under study.

[1] For more information on the public spending analysis methodology, consult the methodological document available on the MAFAP website: http://www.fao.org/fileadmin/templates/mafap/documents/Komorowska_PE_Uganda.pdf

Comparative review of the objectives reflected by strategic frameworks for agriculture and rural development

In general, the structure of the strategic frameworks in place is quite similar in the countries under study. They first contain a general development framework for the country that contains broad propositions regarding agriculture. This is followed by a sectoral development framework, which outlines strategic objectives for agriculture and the rural sphere. This framework is sometimes accompanied by an operational framework for achieving those objectives, though this is not the case in every country. In Kenya, for example, there is no operational framework that connects all national projects to the Agricultural Sector Development Strategy (ASDS). This was also the case in Mali until 2011, thought they are now in the process of implementing a National Agricultural Sector Investment Plan (NASIP) in order to address the lack of an operational framework. Tables summarizing the strategic frameworks can be found in Appendices 1 and 2, and summaries of operational frameworks are located in Appendices 3 and 4.

In all countries, the years 2009 and 2010 represent a turning point. They generally correspond to the implementation of a new strategic framework for agriculture (Kenya and Mali), a renewed strategic framework (Uganda and Tanzania) and/or a new operational framework (Mali, Burkina Faso, and Tanzania).

The strategic frameworks contain very general principles that cover a vast number of subjects, which may be due a preference on the part of States to avoid limiting their policy options while maintaining the ability to appeal to donors without contravening the harmonization principle of the Paris Declaration. Common trends can nevertheless be identified and classified according to the commonly recurring subjects in strategic frameworks: production, processing/commercialization, consumption, producers' organizations and social welfare, and environment and natural resources.

1.1. Production

In all the countries under study, increased production and productivity emerges as the key objective in each framework. Mali and Burkina Faso in particular make this a priority, which is explained by the fact that they are behind in this respect relative to other East African countries. The modalities for stimulating production are similar across all countries considered: technology, research, extension, and financial services appear in each strategic framework. Input variables (fertilizers and seeds) are also mentioned by three of the countries, excluding Tanzania and Uganda. This reflects a desire in the latter to limit government intervention in agriculture, while Tanzania tends to appeal to the private sector via public-private partnerships for the provision of services.

In addition, the emphasis placed on irrigation and hydro-agriculture constructions is heavier in West African countries. This due to the geographic context of Mali and Burkina Faso, landlocked Sahelian countries that seek to stimulate rice and cotton production by using both rain- and river-fed agriculture. These two countries have also made a clear priority of diversifying agricultural production, due to their heavy dependence on imports and the cultivation of cotton as a cash crop. Furthermore, the question of agricultural risk management has not been addressed by Mali or Tanzania, whereas the issue of land appears to have been overlooked in Uganda.

1.2. Processing and marketing

All countries also address the processing and marketing of agricultural products. This aspect appears as the second most important element in strategic frameworks, which frequently emphasize development of a modern, commercial, and competitive agricultural sector. All countries, excluding Mali, address the importance of reinforcing private sector involvement and, with the exception of Uganda, of developing commercial or export crops. In addition, Tanzania appears to be the only country that did not explicitly define the question of market access in their policy orientation documents.

The matter of processing value added is considered in the strategic documents of Kenya and Uganda. Agricultural product stores are also addressed by three of the five countries: Burkina Faso, Uganda, and Tanzania. Tanzania is the only country to clearly discuss the question of market access, whereas all countries, except Kenya and Uganda, address the promotion and diversification of export products. The implementation of a market information system is present in the documents of the two francophone countries and Uganda.

The crucial matter of commercial regulation is presented among the strategic objectives of Mali, Kenya, and Tanzania. It is interesting to note that Uganda and Burkina Faso make no mention of commercial regulation.

1.3. Consumption

Consumption receives surprisingly little attention in the countries' strategic frameworks, particularly in East Africa. Food and nutrition security is certainly present in all countries' documents (aside from Uganda) but is perceived as a marginal issue in comparison with the number of important objectives concerning aspects of production and marketing. It therefore appears that the States under study do not have a strong strategy for defining clear and transparent policies vis-à-vis consumers, which has repercussions on policy decisions, as we will see in part III. However, one notes a difference between the approaches to food security in West and East Africa. Burkina Faso and Mali place a greater emphasis on nutrition security and crisis prevention and management, while Uganda and Tanzania target their strategies more towards rural development and the increase of household incomes. Kenya adopts a more hybrid approach.

1.4. Producers' organizations and social welfare

Social welfare is little mentioned in the strategic frameworks of the countries studied. However, Burkina Faso and Mali do mention such objectives via their National Programmes for the Rural Sector (NPRS) and their Agriculture Development Policies (ADP), as does Tanzania in the Kilimo Kwanza ("Agriculture First", in Swahili).

Reinforcement of the capacities of various agricultural actors is, moreover, systematically mentioned in the strategic frameworks, though only Mali, Kenya, and Uganda have explicitly defined policy orientations targeting reinforcement of the legal and/or institutional framework of producers' organizations.

1.5. Environment and natural resources

Environmental and natural resource management is the last major component that emerges in the strategic frameworks. However, the questions of access to land and sustainable water management are rarely mentioned, though they are two of the four pillars of the CAADP.

States have sometimes deviated from the objectives presented above due to the particularly turbulent nature of the 2005-2010 period, including the food crisis of 2007-2008. The following section reviews the main policy decisions adopted by the five countries from 2005 to 2010. These strategic frameworks, although they target many themes, define policy orientations that prioritize production and commercialization through technology, research, and extension.

Comparative analysis of policy measures for agriculture and rural development

2.1. Comparing the targets of policy decisions

If the governments of the countries under study effectively adopted clear strategic frameworks with a view to developing their agricultural sector, the implementation of those frameworks can be studied by assessing policy measures and decisions. This part of the study reviews the main policy decisions regarding consumers, producers, and the regulation of international trade. These measures and decisions consist of Laws, Proposed Laws, Decrees, Ministerial Circulars, Presidential Instructions, and other official declarations (FAPDA, 2010). They therefore correspond to a phase of strategic framework implementation, and have a legislative status that differentiates them from projects and plans. This review is based largely on the data gathering efforts of the Food and Agriculture Policy Decisions Analysis (FAPDA) of the FAO, and the qualitative work carried out by the Monitoring African Food and Agricultural Policy team (MAFAP). Due to the considerable difficulty in gathering an exhaustive list of the policy decisions adopted in Africa, it is possible that some are missing from this review.

2.1.1. Pro-consumer decisions

Pro-consumer decisions dealt primarily with food security. Those decisions are described below in terms of accessibility, availability, stability, and quality, with reference to FAO food security definitions (see Appendix 5).

The most frequently recurring pro-consumer decisions were those that sought to render agricultural products accessible. While a multitude of measures regarding the accumulation of stocks were recorded, those targeting food availability were less frequent.

Accessibility translates essentially into price caps on foodstuffs, a widely used mechanism in the countries under analysis. In fact, generalized price caps were recorded for Burkina Faso and Kenya (targeting the products essential to food security). Certain products received subsidies in Tanzania, and some commodities (import products – rice and milk – in particular) were individually targeted in Mali. No such measures were recorded for Uganda; however measures were put in place to increase consumer revenues in that country. Specifically, decisions were made that reevaluated civil servants' salaries, favored job creation (reinforcement program for youth professional competencies), and reduced energy costs.

Availability and stability of foodstuffs were also favored by the accumulation of stocks, essentially cereals. Two types of stocks were recorded: emergency stocks, notably in Mali, Burkina Faso, and Kenya, and operational stocks. Emergency stocks were sold at a low cost or distributed during 2008 and 2009 in response to the crisis, and were then mostly restored in 2009-2010. The operational stocks in Tanzania were used to regulate the availability of food products over time and space. No measures regarding stocks were recorded for Uganda.

The food aid and nutrition programs were targeted and robust over time. In Kenya and Mali, they occurred mainly in the form of food distribution in schools. In Mali, food aid was also provided

through the "Food for Work" and "Food for Education" programs of the World Food Programme (WFP). Nutrition aid[2] was limited and targeted vulnerable groups (Mali).

Among the five countries studies, Uganda had the fewest pro-consumer measures, and those that were adopted targeted exclusively the increase of available revenues. Pro-consumer measures were equally undeveloped in Burkina Faso, though the emphasis placed on price caps was very strong. In Tanzania, unlike in other countries, the measures put in place were generally untargeted. Mali and Kenya present similarities in the nature of their pro-consumer policies (school meal programs, emergency stocks, and price caps for wholesalers and producers).

2.1.2. Pro-producer decisions

Pro-production decisions were of two types: direct and indirect. Direct decisions were concerned primarily with inputs, while indirect decisions mainly targeted rural infrastructure.

Measures affecting inputs were widespread, mainly in the form of access to fertilizers, and to a lesser extent as access to seeds. Such measures occurred as subsidies in the majority of countries. In Tanzania, fertilizers were tax exempt. Measures concerning mechanization and the acquisition of equipment were aimed at developing agricultural production, processing, and transportation. These took the form of subsidies in Tanzania, tax exemptions in Tanzania and Uganda, and distribution of materials in Uganda. In the latter, tax exemptions seem to have been a recurring policy tool, as they were also applied in the agribusiness sector and to agriculture projects financed by donors. Access to credit was also particularly facilitated in Uganda as compared with other countries. In Tanzania, financial instruments were put in place in order to help producers offset the effects of the financial crisis. One also notes the use of national land loans in Tanzania and measures in Uganda aimed at improving access to credit for the purchase of land.

Measures in support of single commodities focused mostly on increasing production and productivity, while less support was provided for commercialization and processing. Policy measures targeted cereals in particular, most importantly rice. In Mali, Burkina Faso, and Kenya, initiatives targeted individual products (rice, maize), whereas Tanzania and Uganda adopted measures aimed at groups of products. Cash crops held an important place among policy measures in Kenya; however one also notes the use of measures favoring the production and commercialization of cotton in Mali and Burkina Faso. As regards animal husbandry, measures were recorded in all countries, though to differing degrees. They were extremely limited in Burkina Faso and Mali. In Uganda, they occurred primarily through the distribution of animals of a superior race in order to increase productivity, and it was in Kenya (loans and infrastructure) and Tanzania (production, commercialization, health security) that policy measures were more developed. This is an apparent paradox, since animal husbandry is less important in both of these countries in terms of total agricultural exports than it is in Mali and Burkina Faso.

As regards indirect measures, irrigation was the main target for the improvement of rural infrastructure. As such, few measures were recorded that dealt with the improvement of main thoroughfares, except in Uganda. In Burkina Faso, these measures were put in place primarily with

[2] Nutrition aid aims to achieve nutrition security, which is defined as follows by the IFPRI "Nutrition security can be defined as adequate nutritional status in terms of protein, energy, vitamins, and minerals, for all household members at all times" (IFPRI, CSA, 2012).

respect to the Samendéni Valley and the Bagré Growth Pole Project, and were thus geographically restricted. Land policies do not seem to have been part of the policy agenda in recent years, except in Burkina Faso, where a new law regarding the land regime was adopted. Phytosanitary measures were equally limited, with a few policy measures implemented in Mali (curative measures) and Uganda (prevention measures).

Measures regarding the production and dissemination of knowledge were limited in all countries except Uganda (technical assistance, extension, research into inputs, research on the development of cooperatives). However, one notes the large number of technical assistance projects in Kenya and Mali. In Tanzania, agriculture services were supported via tax exemptions.

Pro-production measures were more developed in Uganda and Tanzania, and seem to cover the entire territory and a large number of food commodities. Uganda is distinguished by support for production and knowledge dissemination. In Mali, Burkina Faso, and Kenya, these measures consist mainly of support for access to inputs.

2.1.3. Commercial policy decisions

Beginning during the food price crisis of 2007-2008, a strong tendency to lower customs duties and import restrictions has been observed in all countries except Uganda, where the market had already been considerably liberalized. These decreases in or exemptions from customs duties were applied mainly to food commodities in order to offset rising international prices. Export policies were applied to the same products, with export restrictions or bans in 2008 and 2009 in order to avoid food shortages. Export taxes seem little used, though non-tariff barriers, particularly administrative complications, were noted in all the countries under study.

The following table summarizes the salient elements of the policy measures recorded:

Table 1. Orientation of main policy decisions in Burkina Faso, Kenya, Mali, Tanzania, and Uganda.

	Main instruments used	Degree of liberalization	Targeted products
Burkina Faso	Input subsidies Import tax exemptions	Widespread price caps Non-tariff export barriers	Products important for food security + cotton
Kenya	Input subsidies	Widespread price caps Import and export taxes	Cereals, cash crops, animal husbandry
Mali	Input subsidies Import tax exemptions	Widespread price caps Non-tariff export barriers	Products important for food security, particularly rice + cotton
Tanzania	Import and agricultural service tax exemptions Equipment subsidies	Widespread price caps Import and export taxes	Cereals, animal husbandry
Uganda	Revenue generation Input subsidies Facilitation of access to credit	Few price caps No export or import taxes	Various

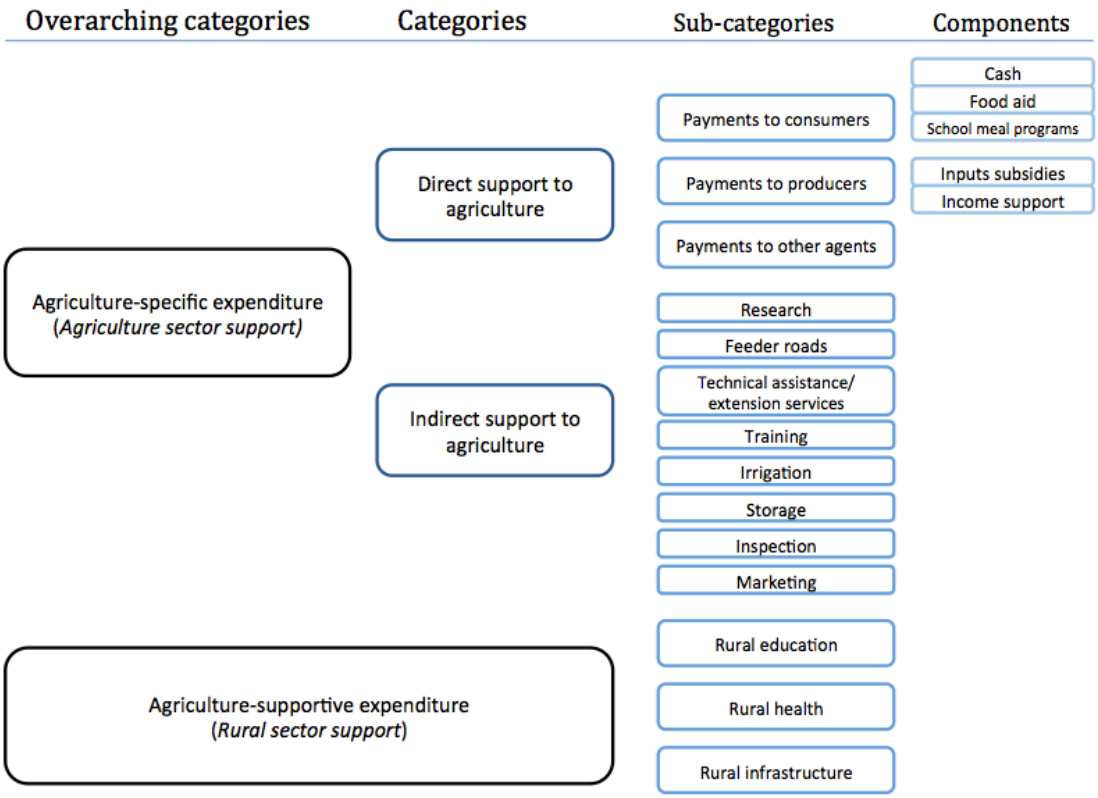
Source: Authors

2.2. Comparison of public spending allocation to agriculture and rural development

Policy decisions can impose regulations, as is the case in the trade policy framework, but they are mostly applied through programs or projects implemented by various Ministries, first and foremost the Ministry of Agriculture. The total programs and projects for rural development and agriculture, to which administrative governmental costs are added, represent the annual public expenditure for rural development and agriculture. Public expenditure is the main policy tool of the executive, which can orient the effective implementation of strategic frameworks through finance laws each year.

Using an innovative methodology based on that of the OECD, the MAFAP system tracks and analyzes the structure of the public spending in certain participating States. This highly disaggregated and analytic approach allows for an evaluation of the detailed composition of public spending on the basis of the types of activities supported (Figure 1). Analysis results clarify the policy orientations of national budgets and facilitate evaluation of policy coherence. Essentially, MAFAP compares the public expenditure analysis with policy decisions, particularly those that effect domestic market prices, and strategic frameworks.

Figure 1. MAFAP classification of public expenditure by category.

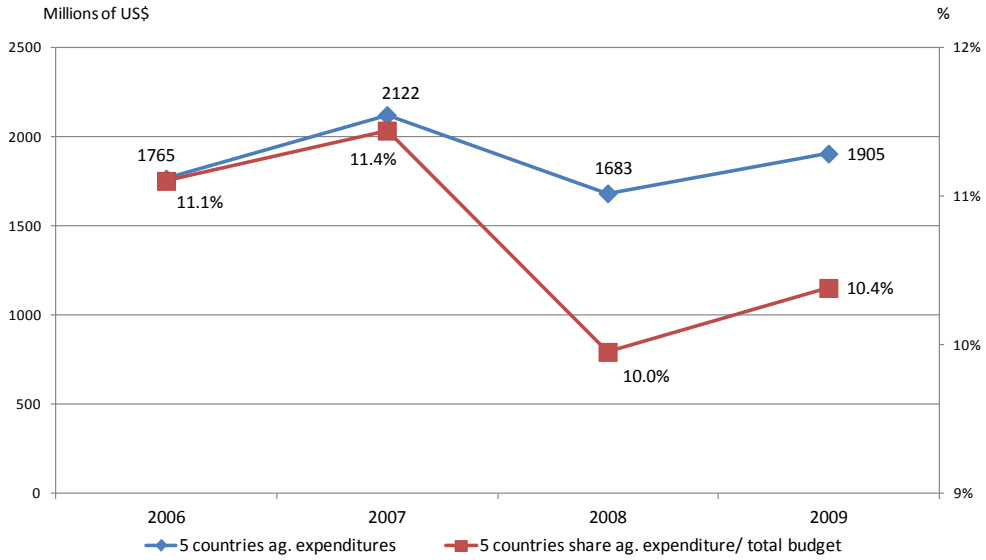


Source: Authors

2.2.1. Level of public spending on rural development and agriculture

Overall, a reduction in public spending on agriculture and rural development is notable for 2008, the time of the food price crisis. Spending seems to have been on the rise during 2009 (Figure 2).

Figure 2. Agriculture and rural development expenditure in absolute and relative value as a percentage of total public expenditure for Burkina Faso, Mali, Kenya, Tanzania, and Uganda, 2006-2009.



Source: own calculations based on budgetary data collected by MAFAP[3]

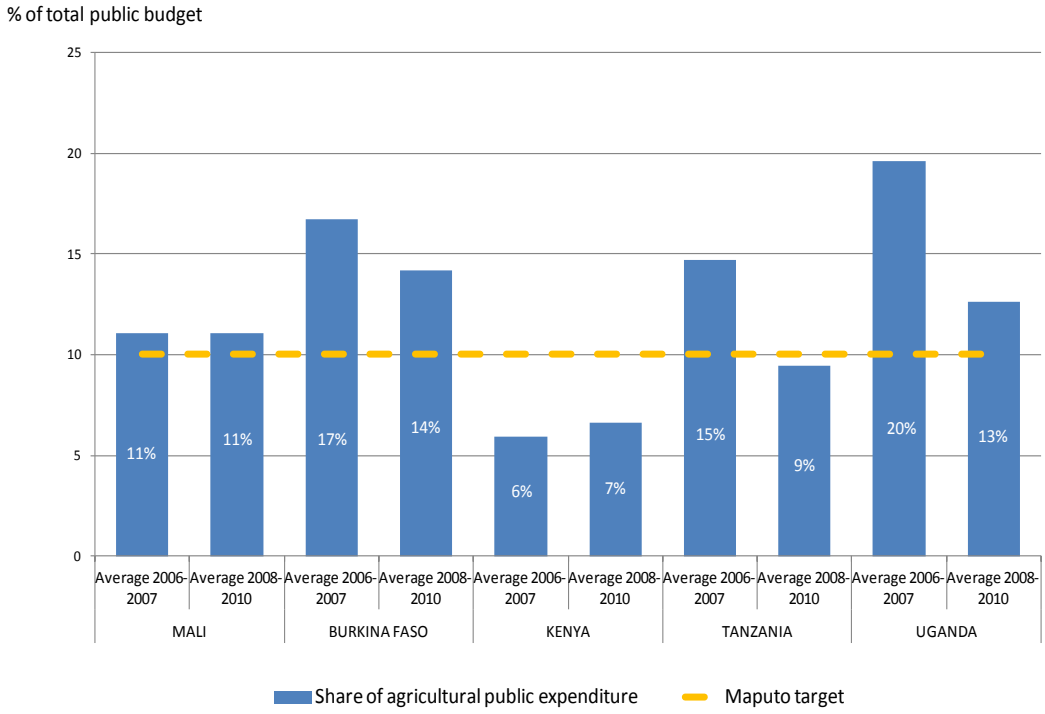
The Maputo Declaration (2003) requires signatory countries (including the five countries studied here) to allocate at least 10 percent of their national budgets to agriculture and rural development[4]. Mali, Burkina Faso and Uganda kept their level of public expenditure for the agricultural sector above the Maputo target during the periods 2006-2007 and 2008-2010 (Figure 3). Tanzania, though it was below the target during 2008-2010, maintained an average expenditure that was above the target during 2006-2010. Kenya remained below the objective for the whole period[5].

[3] The data for 2010 was not included given the fact that administrative costs and total public budget for Mali were not collected following the MAFAP methodology criteria for that year.

[4] Assembly of the African Union, Second Ordinary Session, 10-12 July 2003, Maputo, Mozambique, decl. 7, p. 1: *"We, the Heads of State and Government of the African Union (AU), assembled in Maputo at the Second Ordinary Session of the Assembly, 10 to 12 July, 2003 (…) agree to adopt sound policies for agricultural and rural development, and commit ourselves to allocating at least 10 percent of national budgetary resources for their implementation within five years"*. When calculating the share of national budgetary resources dedicated to the agricultural sector, the approach taken by MAFAP is to consider the transfers associated with agricultural policies (policy transfers) and related administrative costs, including the amounts that originate from external sources.

[5] For Kenya, MAFAP only has data on budgeted amounts, and not on actual expenditures.

Figure 3. Public spending on agriculture (including agriculture-specific expenditures, expenditures in favor of rural development, and administrative costs identified by MAFAP[6]) as a percentage of the total public budgets of 5 African countries, averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP[7]

With the exception of Kenya, expenditures for the agricultural and rural sector as a share of total public spending reduced in all countries over the 2006-2010 period. For example, in Uganda, where this decrease is most marked, the country went from dedicating 19.6 percent of the public budget to agriculture and rural development in 2006 and 2007, to 12.6 percent on average during 2008-2010. This decrease in spending in all countries (expect Kenya) demonstrates each State's progressive divestment with respect to agriculture and rural development in order to comply with the Maputo declaration.

The decrease in public budget share dedicated to agriculture is underpinned by a decrease in the absolute amount of agriculture expenditure (Figure 4)[8]. Only Kenya increased the absolute amount spent on the agricultural sector between 2006 and 2010.

[6] In the case of Mali, it appears that the administrative costs for agriculture collected by MAFAP were under-estimated. Administrative costs have been calculated on the basis of official data issued by the Planning and Statistics Unit of the Rural Development Sector (CPS-SDR).

[7] For Mali, the average for the second period only includes 2008 and 2009. The total public budget for those years was collected by the Planning and Statistics Unit for the Rural Sector Development (CPS-SDR), except for 2010 due to missing data.

[8] The absolute values reported here were obtained by adjusting for inflation (using the Consumer Price Index) with 2006 as the base year (formula: $Value_{constant\ 2006\ LCU} = Value_{current\ LCU} \frac{CPI_{2006}}{CPI_{current}}$). Amounts in local currency were converted into US$ using the prevailing exchange rate for 2006. External data was obtained from the World Development Indicators Database (WDI, World Bank), http://data.worldbank.org/data-catalog/world-development-indicators.

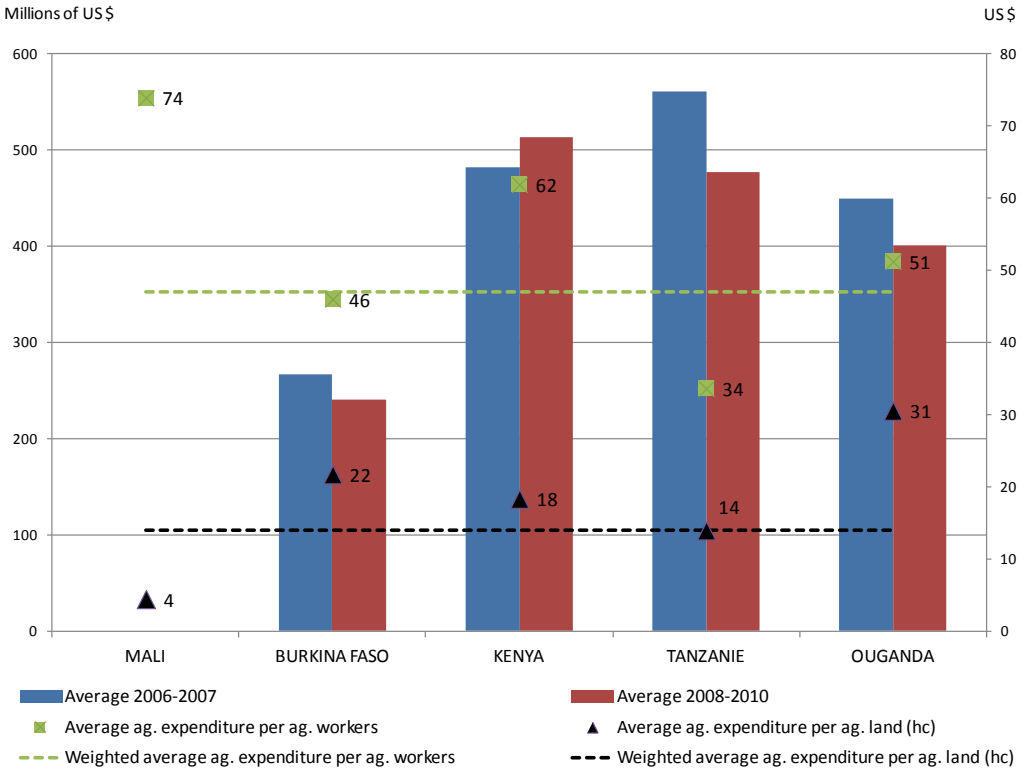
Nevertheless, it is very important to clarify that national governments, with the exception of Tanzania, did not decrease the share of public spending on agriculture and rural development during the period of analysis – nor did they decrease absolute spending, which in fact increased. It was donors who significantly reduced their spending, particularly in 2008, causing the share of the public budget spent on agriculture and rural development to diminish in the countries in question. The fact that public spending on agriculture and rural development is moving away from the Maputo target is largely imputable to the reduction in donor support following the 2008 financial crisis.

A supplementary perspective on the analysis consists in relating public agricultural and rural development spending to the number of agricultural workers and the area of agricultural land in each country. This reinforces the relevance of analyzing the budget share allocated to agriculture.

In terms of public expenditure per worker and per agricultural area, Uganda and Kenya were the most supportive countries, followed by Burkina Faso (Figure 4). This confirms the importance of the agricultural sector for Burkina Faso and Uganda. On the other hand, the low level of expenditure allocated to agriculture in Kenya contrasts with the importance of that support relative to the active agricultural population and the county's agricultural area (see also Appendix 6).

Furthermore, although public expenditure in Tanzania was the highest of the five countries in terms of absolute value, it was the lowest in terms of expenditure per agricultural worker, due to the fact that the population actively working in this sector is particularly numerous as compared with the other countries (Appendix 6). The opposite case is observed in Mali, where total public spending on agricultural is low, but is still the highest in terms of expenditure per agricultural worker. However, one notes the significant disparity between expenditure per agricultural worker and expenditure per hectare, the latter being quite low. This corresponds to the nature of the Malian agricultural economy, which possesses vast agricultural lands that receive little support and parceled in certain zones of production.

Figure 4. Absolute agricultural expenditure (including agriculture-specific expenditures, expenditures in favor of rural development, and administrative costs identified by MAFAP) in millions of US$ for five African countries, and agricultural expenditure per agricultural worker and per hectare of agricultural land[9], averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP and the World Bank

This absolute decrease may be attributable in part to the significant increase in inflation in these countries during 2009-2010, probably caused by the 2008 crisis (Appendix 7).

The Agricultural Orientation Index (Table 2) allows for determination of whether public expenditures on agriculture reflect the sector's importance. This index decreased during the period of analysis, except in Mali where it remained stable, and in Kenya where it increased. The country with the highest level of spending on the agricultural sector with respect to its contribution to GDP is Uganda.

[9] The number of agricultural workers was calculated based on World Bank data, available at http://databank.worldbank.org/data/views/reports/tableview.aspx (active population and percentage of the active population working in the agricultural sector), and corresponds to 2005 for Burkina Faso, Kenya, and Uganda and to 2006 for Mali and Tanzania.

Table 2. Portion of public spending on agriculture within the total budget, compared with the agricultural sector's share of GDP in 5 African countries, averages for 2006-2007 and 2008-2010 – Agriculture Orientation Index.

	Mali		Burkina Faso		Kenya		Tanzania		Uganda	
	2006-07	2008-10	2006-07	2008-10	2006-07	2008-10	2006-07	2008-10	2006/07	2008-10
Portion of public spending dedicated to agriculture	11	11	17	14	6	7	15	9	20	13
Portion of agriculture in total GDP	37	39	35	37	26	26	30	29	25	29
Portion of public spending on agriculture/ Portion of agriculture in total GDP	0.3	0.3	0.5	0.4	0.2	0.3	0.5	0.3	0.8	0.5

Source : own calculations based on budgetary data collected by MAFAP and the World Bank

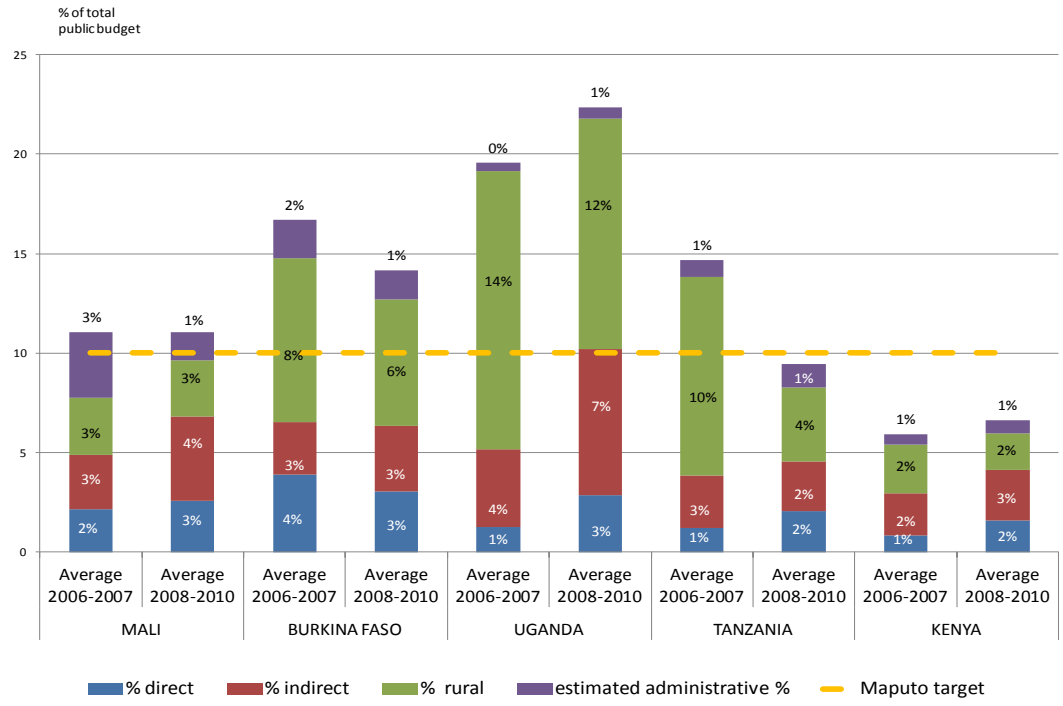
2.2.2. Categories of public spending allocation to agriculture and rural development

The MAFAP terminology, presented in the introduction to this document, distinguishes two broad categories of public expenditure: agriculture-specific spending, and support for agriculture, which is referred to here as support for rural development. In this section, specific expenditures will be divided into two sub-categories: direct expenditure (individual support to agents in the sector) and indirect expenditure (collective support for agents in the sector). Three categories of analysis will therefore be used: direct support for agriculture, indirect support for agriculture, and support for rural development (Figure 1). The sum of the public expenditures analyzed is referred to as public spending on agriculture and rural development.

Breakdown of public spending into direct support for agriculture, indirect support for agriculture, and support for rural development

Expenditure on rural development was the most important of the three categories in relative terms during 2006-2007 (Figure 5). This category subsequently decreased in all countries during 2008-2010. That decrease corresponded to an increase in direct and indirect support.

Figure 5. Relative proportion of direct and indirect spending on agriculture and support for rural development within total public budget, including the percentage of administrative costs identified by MAFAP, averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP[10]

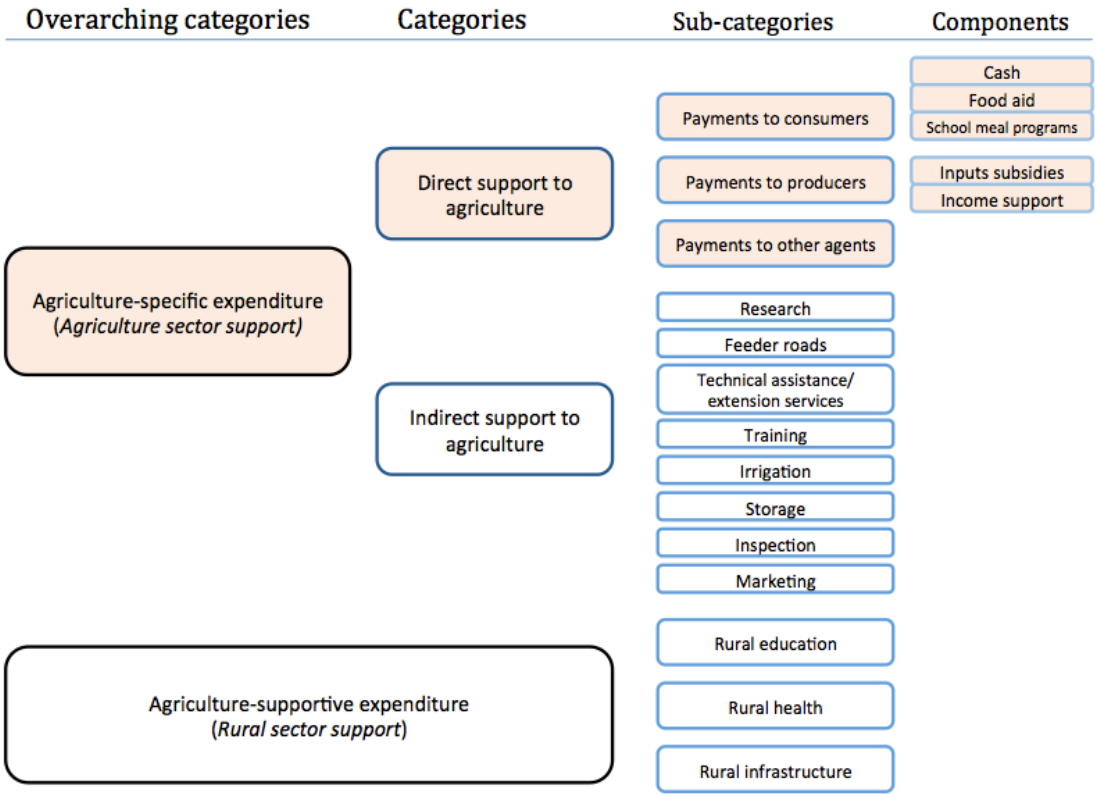
This decrease in rural spending accompanied by an increase in direct and indirect spending is equally evident when expenditures are expressed in absolute values (Appendix 8). Direct spending in particular increased during this period. A more detailed analysis of the three categories will explain the causes of this dynamic.

- Direct spending in the agricultural sector (among specific expenditures)

Figure 6 provides a visual representation of the public expenditures analyzed in this subsection.

10 For Mali, the average for the second period only includes 2008 and 2009. The total public budget for those years was collected by the Planning and Statistics Unit for the Rural Sector Development (CPS-SDR), except for 2010 due to missing data

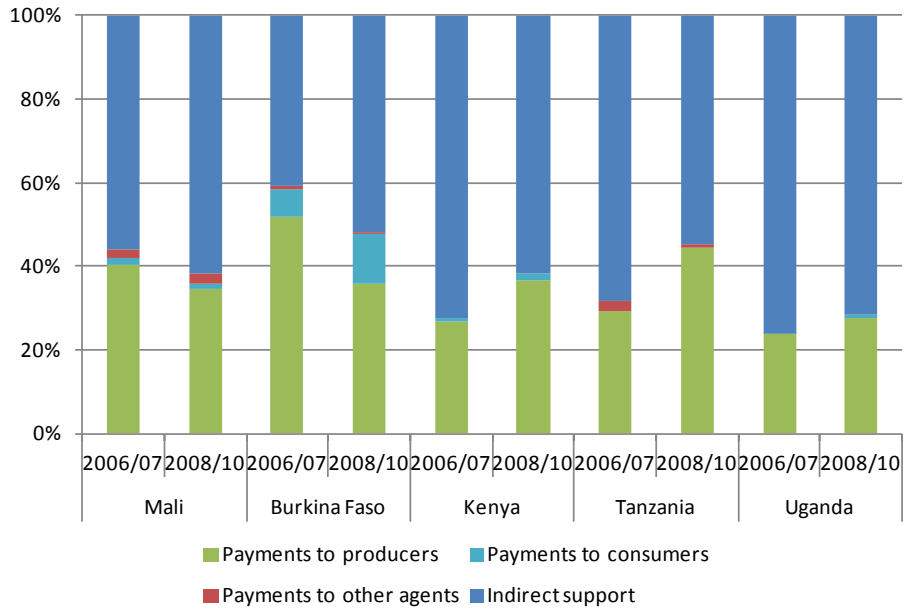
Figure 6. Categories of direct expenditure on the agricultural sector within agriculture-specific spending analyzed in this subsection.



Source: Authors

Among payments to agents, it is producers who are predominantly targeted by direct agriculture spending, while expenditures for consumers appear to be limited in all the countries considered, with the exceptions of Burkina Faso (Figure 7).

Figure 7. Allocation of agriculture-specific expenditures to consumers, producers, other agents, and indirect support, 2006-2010



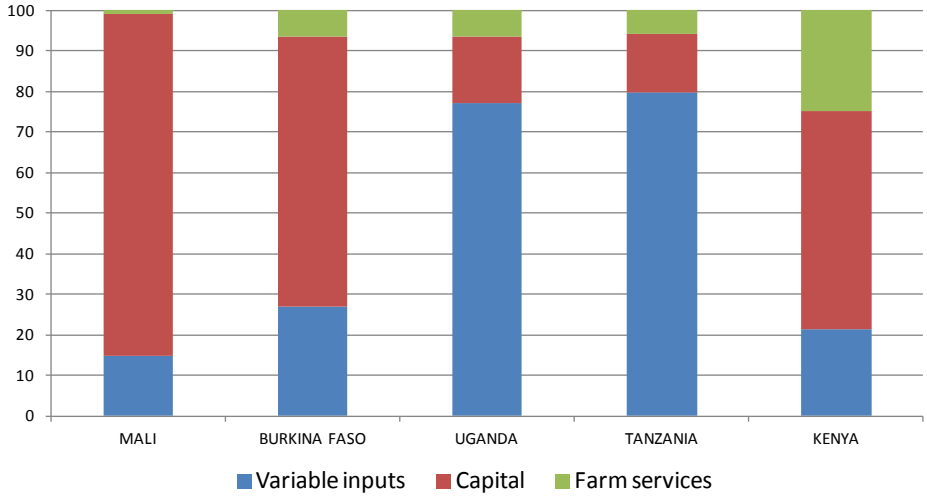
Source: own calculations based on budgetary data collected by MAFAP

Payments to producers mainly included input subsidies (Appendices 9 and 10). In the MAFAP typology, these include both variable inputs (fertilizers, seeds, etc.) and fixed inputs (equipment, infrastructure for farms, etc.). These input subsidies take the form of variable inputs in East Africa, while capital input subsidies prevailed in West Africa (Figure 8), though in the case of Kenya distribution is more balanced. This means that payments to producers in West African Countries were mostly characterized by investments in machinery and equipment, livestock, on-farm irrigation or other basic on-farm infrastructure[11]. On the other hand, countries in East Africa provided support to farmers primarily in the form of seeds, fertilizers, or tax credits[12].

[11] The biggest projects in the "capital" category are essentially linked to irrigation in Burkina Faso and to the funding of agricultural equipment or hydro-agriculture in Mali.

[12] See MAFAP (2010), "Monitoring African Food and Agricultural Policies project methodology: concept paper", Draft paper, www.fao.org/mafap, p. 35.

Figure 8. Composition of input subsidies for producers in five African countries, 2006-2010 averages.



Source: own calculations based on budgetary data collected by MAFAP

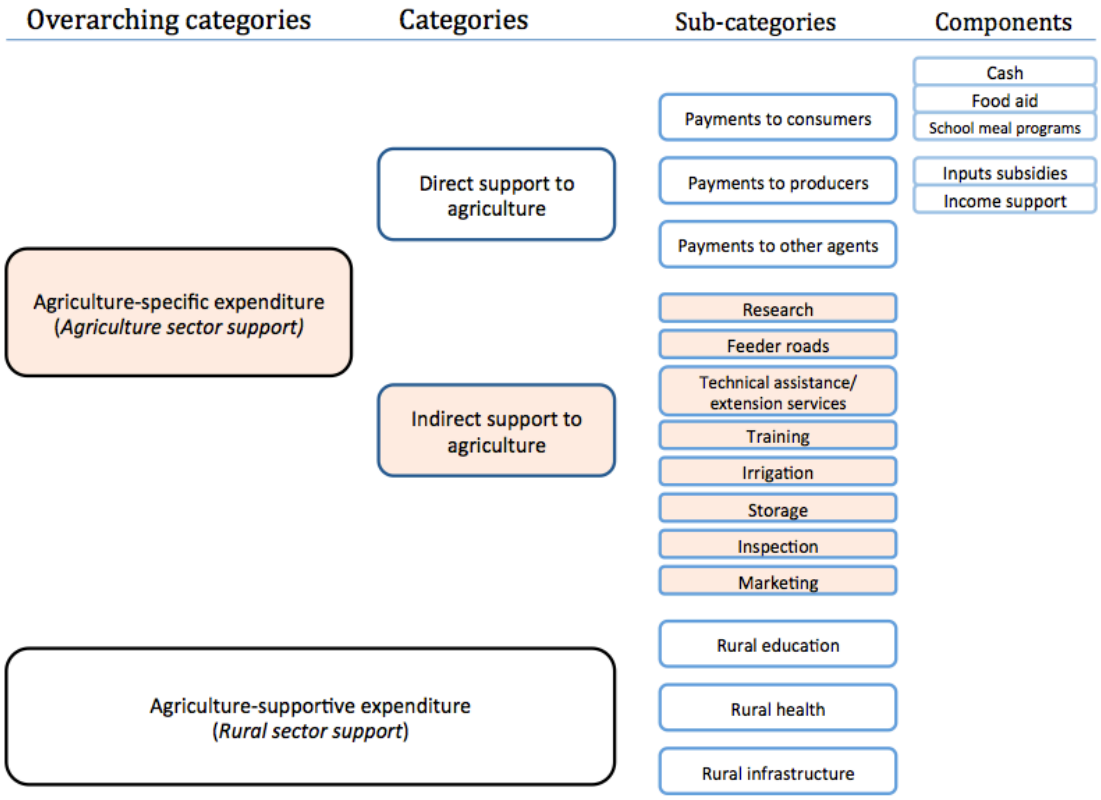
The composition of input subsidies over the two periods indicates that the financial and food crises of 2008 provoked a relative rise in the use of variable input subsidies. This is due to the tendency of governments to increase national production in order to reduce food imports in a context of high price volatility. The weak direct support for consumers identified in the MAFAP analysis raises certain questions. It appears that governments opted for trade policies (increased import taxes, for example) rather than public spending to limit the effects of the food crisis. A form of political contradiction is revealed in the case of Mali, a country in which the government has invested heavily in input subsidization for rice and various cereals, while favoring the import of those same cereals in order to support consumers. These policies tend to depress domestic prices, and counter the effects of policies that support production by limiting incentives for producers[13].

- Indirect spending in the agricultural sector: the case of agricultural research (among specific expenditures)

[13] See Balié, J., Mas Aparisi, A., Diakité, L. and Diallo, F. (2012), "SPAAA : note technique sur le riz", FAO, Rome, and IER, Bamako.

Figure 9 presents a visual representation of the public expenditure analyzed in this subsection.

Figure 9. Categories of direct expenditure on the agricultural sector analyzed in this subsection: the case of agricultural research (within agriculture-specific spending).



Source: Authors

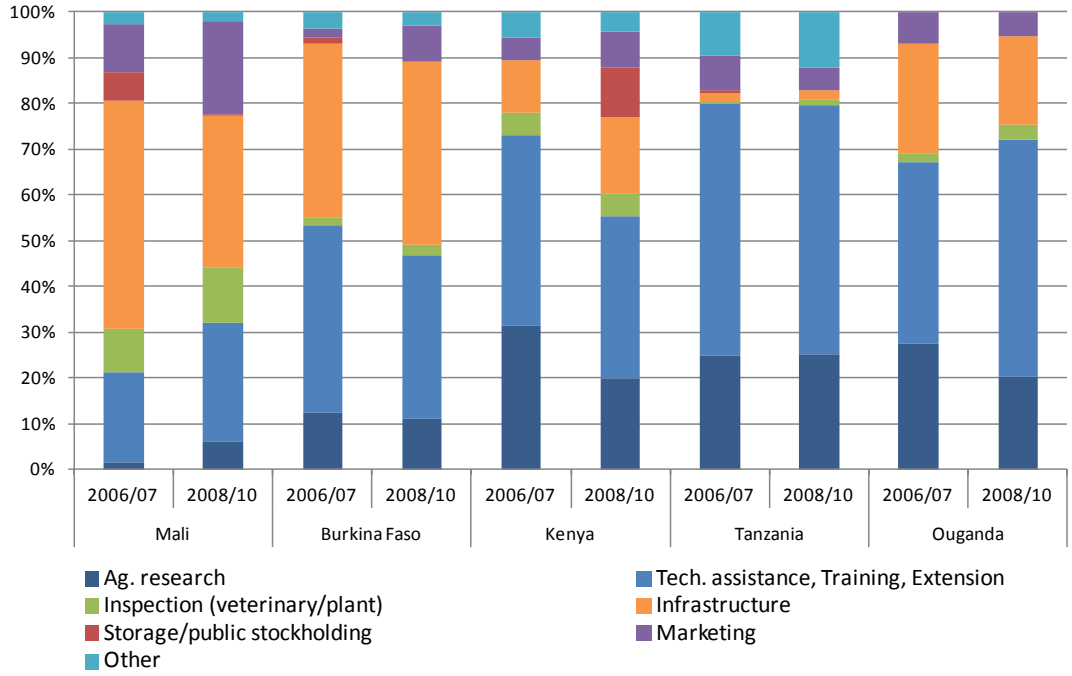
Support for variable inputs, though they may galvanize agricultural production in the short-term, must be combined with support for trade and infrastructure in order to sell that production. The MAFAP analysis of public spending reveals that support for marketing was weak in many countries (Figure 10), though it is true that East African countries have increasingly resorted to the private sector for marketing[14], without which producers would not invest in development of their production capacities. Total investment in infrastructure similarly declined during the period in question in all countries. It is therefore unlikely that variable input subsidies constitute a viable long-term solution for agricultural productivity, while also weighing heavily on the budget[15]. Our data indicate that East African countries invested significantly in input subsidies from 2008 on (Figure 8), whereas investment in commercialization stagnated, particularly in Tanzania and Uganda, and investment in infrastructure decreased.

[14] The MAFAP analysis deals exclusively with public expenditures.

[15] See BARREIRO-HURLÉ, J. and DRUILHE, Z. (2012), "Fertilizer subsidies in sub-Saharan Africa", ESA working paper No. 12-04, Food and Agriculture Organization of the United Nations, http://www.fao.org/docrep/016/ap077e/ap077e.pdf, p. I (abstract): "In low input/low output agricultural systems, fertilizer subsidies can play a role in raising fertilizer use and agricultural productivity. They can help demonstrate the benefits of fertilizers and/or kick-start market development by raising input demand at a large scale. However subsidies do not represent a suitable policy option on the long run, as they do not address the root causes of low fertilizer use on input or output markets and they involve unsustainable fiscal costs for the economy".

Comparing expenditures by country, one notes that indirect spending in Mali and Burkina Faso was directed mainly to agricultural infrastructure, technical assistance, training, and extension. The latter three sub-categories are even more important in East African countries, though the main difference is a distinctly higher level of support for agricultural research.

Figure 10. Composition of indirect spending on the agricultural sector in five African countries, averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP

Analysis of the absolute values confirms the preponderance of support for research in East Africa as compared with West Africa (Appendix 11). That same analysis also demonstrates an upward trend in spending on agricultural infrastructure.

If one considers the intensity of agricultural research, which demonstrates the level of investment in research as compared with the value added by the agricultural sector to the total GDP, one notes that in every country these ratios are extremely weak and have not increased (Table 3).

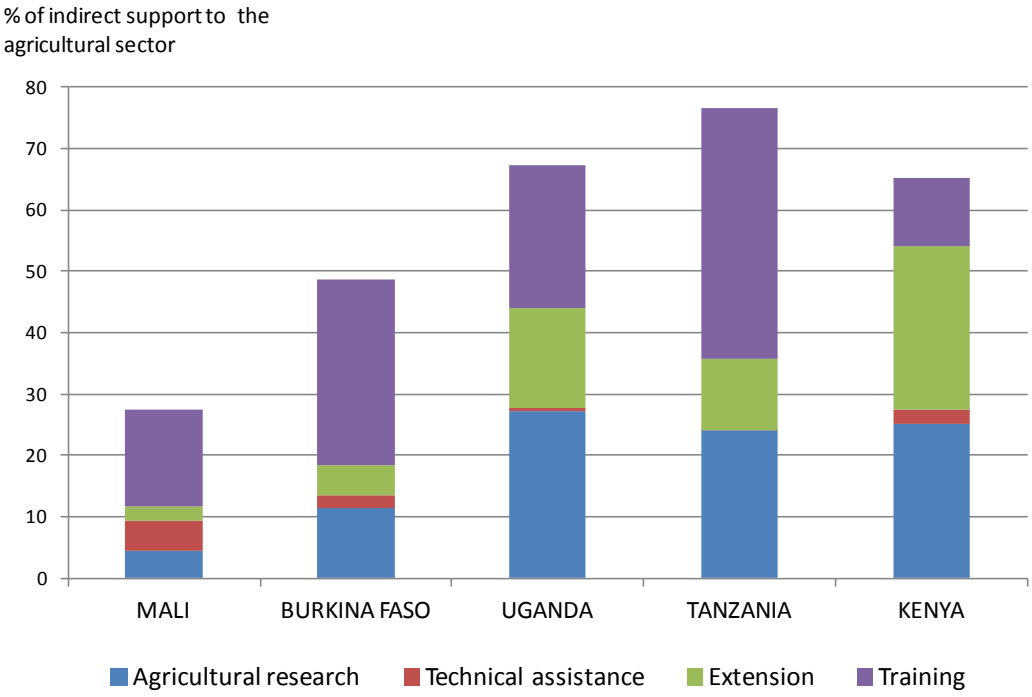
Table 3. Intensity of agricultural research (agricultural GDP/spending on agricultural research) for 5 African countries, averages for 2006-2007 and 2008-2010.

	MALI		BURKINA FASO		KENYA		TANZANIA		OUGANDA	
	2006-07	2008-10	2006-07	2008-10	2006-07	2008-10	2006-07	2008-10	2006-07	2008-10
Agricultural GDP	6506190325	9041715282	6300238786	8508049151	24870437969	31081336331	15578389207	21666085272	10946614331	15813909604
Expenditure on agricultural research	686860	6050696	5359748	6050696	54726269	44126782	21946627	31234905	24555262	26442516
Agricultural research/ Agricultural GDP	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%	0.2%

Source: own calculations based on budgetary data collected by MAFAP

The importance of the link between investment in agricultural research and agricultural growth has often been emphasized. Research and development in the agricultural sector have been the most effective form of investment of the last 40 years (SOFA, 2012). Fan and Zhang (2008) have asserted that extension and agricultural research are the two investment categories with the strongest impact on agricultural productivity and poverty reduction, as compared to other public spending categories, and they therefore allow for a reduction of the prices paid by consumers (SOFA, 2012). Fuglie and Rada (2013) have also demonstrated that investment in agricultural research is correlated with greater productivity in the agricultural sector, but that this type of investment has remained weak in Sub-Saharan Africa. They add: "increases in research capacity will certainly be necessary to accelerate agricultural growth in the region"[16].

Figure 11. Percentage of indirect support to the agricultural sector dedicated to agricultural research, extension, training, and technical assistance in five African countries, averages for 2006-2010.



Source: own calculations based on budgetary data collected by MAFAP

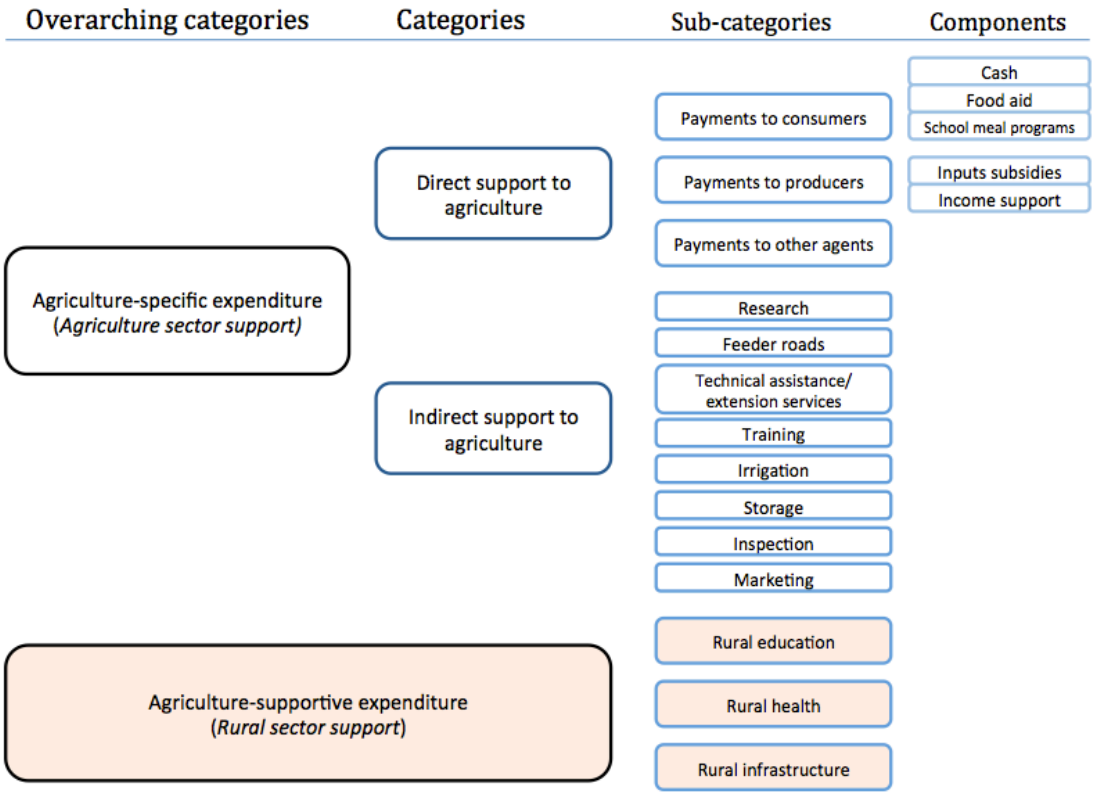
The efficiency of investments in agricultural research also depends on expenditures devoted to technical assistance, extension, and training, in order to ensure good dissemination of accumulated knowledge. To evaluate this aspect, we consider the ratio between expenditures dedicated to agricultural research and expenditures dedicated to extension (Appendix 12). In Mali and Tanzania, investment in agricultural research rose over the period of analysis, but this was not accompanied by a proportional increase in investments in extension. In Burkina Faso, spending on extension was insufficient when compared to research, but this relationship is improving. In Uganda and Kenya, extension expenditures were balanced with respect to agricultural research spending.

[16] Fuglie, K.O., and Rada, N.E. (2013), *Resources, Policies, and Agricultural Productivity in Sub-Saharan Africa,* ERR-145, U.S. Department of Agriculture, Economic Research Service, p. i (abstract).

- Spending to support rural development

Figure 12 presents a visual representation of the public expenditure analyzed in this subsection.

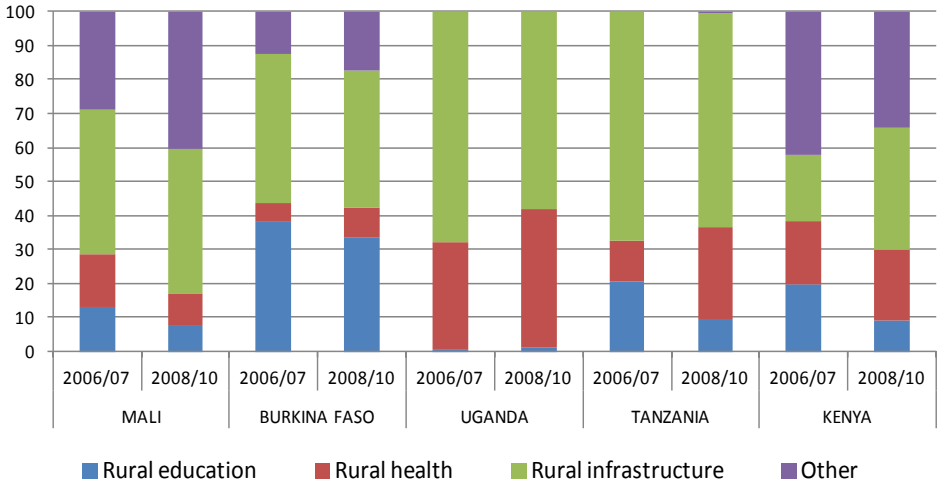
Figure 12. Categories of rural development expenditure analyzed in this subsection



Source: Authors

Spending to support rural development mainly consisted of expenditures on rural infrastructure and, to a lesser extent, on health and education in rural zones (Figure 13). In Uganda and Tanzania, it represented more than 60 percent of spending.

Figure 13. Composition of spending on rural development in five African countries, averages for 2006-2010.



Source: own calculations based on budgetary data collected by MAFAP

The share of expenditures dedicated to rural development and targeting rural infrastructure declined slightly between 2006-2007 and 2008-2010 for Burkina Faso, Uganda, and Tanzania. These are also the countries where expenditures in favor of rural development are the most important.

2.2.3. Declining Investments in Agricultural and Rural Development: Trends and Causes

In this section, we interpret the observations made above. Over the period 2006-2010, the five countries analyzed did not decrease their agriculture-specific spending in relative terms. Only spending in favor of rural development dropped considerably, particularly for rural infrastructure (Table 4). This decrease was more pronounced in East Africa.

Table 4. Difference between the percentages of the total public budget dedicated to agriculture-specific spending and spending in favor of rural development, for the periods 2006-2007 and 2008-2010.

	2006/07-2008/10 change	2006/07-2008/10 change
	Agriculture-specific expenditure	Rural development expenditure
MALI	0.6	-0.6
BURKINA FASO	-0.3	-2.2
KENYA	1.3	-0.6
TANZANIA	1.1	-6.3
UGANDA	0.6	-7.6

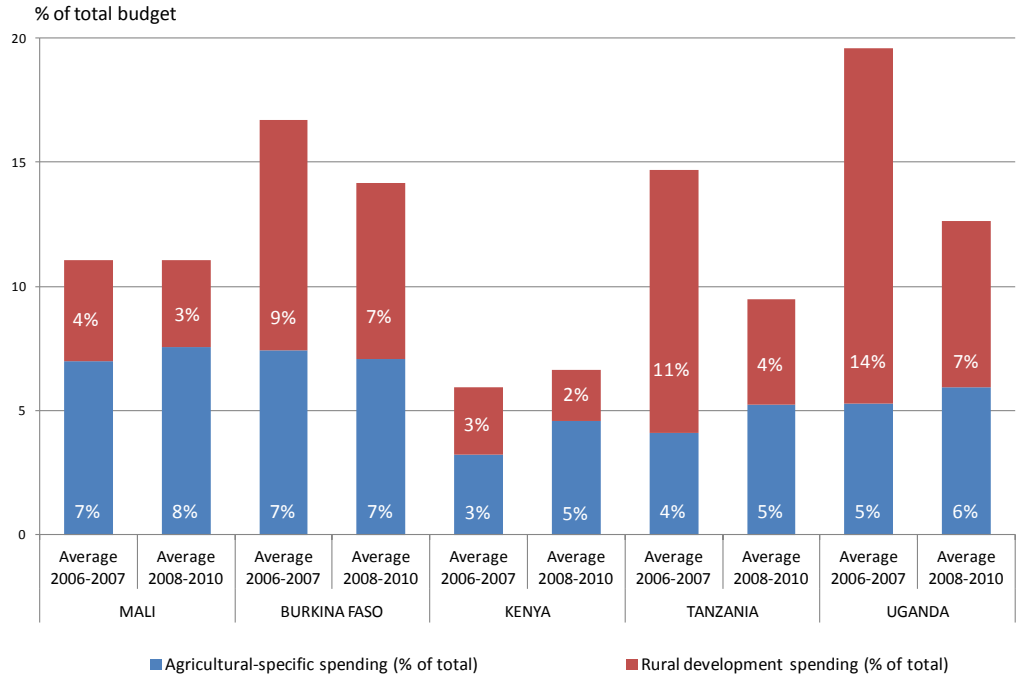
Source: own calculations based on budgetary data collected by MAFAP

Agriculture-specific expenditure augmented during both periods, with a noticeable increase with respect to agricultural infrastructure[17] (Figure 14). This indicates a general tendency towards specialization of agricultural spending to the detriment of rural development, especially in East

[17] Agricultural infrastructure is specific to the agricultural sector (irrigation, service roads, etc.) while rural infrastructure supports general rural development (dams, rural roads, etc.).

Africa. This trend is a redirection of public spending towards more targeted projects that are less focused on the creation of large-scale infrastructure.

Figure 14. Agriculture-specific expenditures and rural development expenditures as percentages of the national budget for 5 African countries (the administrative costs identified by MAFAP are included), averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP

Investment specialization in infrastructure: strategic and political basis

In Burkina Faso, one observes a decrease in spending on rural development throughout the period of analysis, mainly due to a decrease in spending on education and road construction. This is in line with the general objectives of the SAGSD (Strategy for Accelerated Growth and Sustainable Development), which places particular emphasis on supporting products or groups of products that have strong growth potential[18]. In Mali, the slight decrease in spending on rural development coincides with a reduction of the investments made within the framework of the National Rural Infrastructure Program (NRIP), which in turn is a component of the "Master Plan for Rural Development" (SDDR in French, adopted in 1992). A similar dynamic was observed in the United Republic of Tanzania, where investments declined with respect to road infrastructure and education in rural areas. This is in line with the *Kilimo Kwanza* plan (launched in 2008), which focuses on trade policies and favors collaboration with the private sector for the construction of new infrastructure. In Uganda, inflation was the main cause of reduced public spending for the agricultural sector in absolute terms between 2006-2007 and 2008-2010, and a significant contraction of investment in rural infrastructure during the period of analysis has also been observed. This decrease principally affected rural roads from 2008 on, due to significant cuts to project operated by the Ministry of

[18] See MAFAP (2013), "Review of Food and Agricultural Policies in Burkina Faso 2005-2011 - country report", Draft paper, p. 61, www.fao.org/mafap, and the first two sections of this report.

Finance, Planning, and Economic Development, such as the reconstruction of the Jinja-Bugiri and Kabale-Kisoro roads.

Regional Disparities and Observed Economic Performance

The countries under analysis belong to two different regional groups: West Africa (Mali and Burkina Faso) and East Africa (Kenya, Tanzania, and Uganda). These two groups are distinguished by the amount of public spending they dedicate to the agricultural sector, the absolute value of which is 2.25 times higher in East Africa[19]. However, there is no clear dichotomy between the two groups of countries in terms of spending per agricultural worker and agricultural land.

This may be explained by the considerable differences between the economies of Burkina Faso and Mali on one hand, and Uganda, Kenya, and Tanzania on the other (Appendix 13). In this respect, it is worth noting that Burkina Faso, though it is much smaller than Mali in terms of territory, has a virtually identical GDP and allocated more resources to agriculture development, both overall and per cultivated hectare (Figure 4). Similarly, Uganda differed from the larger economies of Tanzania and Kenya by providing greater support, in relative terms, to the agricultural sector (around 15 percent of the national budget during the period 2006-2010) and a nearly equal amount in absolute terms. The agricultural sectors of Burkina Faso and Uganda therefore appear to be the most supported, notwithstanding the downward trend discussed above, and these two countries also dedicate the greatest share of their budgets in terms of agricultural surface. However, if one considers expenditures per agricultural worker, Mali and Kenya support the sector more than the other countries.

Examination of macroeconomic values also verifies this downward trend. Calculation of the expression

$$\frac{Agriculture, value\ added\ (annual\ \%\ growth)}{GDP\ growth\ (annual\ \%)}$$

for the five countries reveals that the growth rate of agricultural value added was slower than total GDP growth in the East African countries (Appendix 14). In West Africa, the growth rate of agriculture value added was higher than that of the GDP during nearly half the period of analysis for Burkina Faso, and during most of the period of analysis for Mali. On the other hand, the variance in growth rates is greater in the two East African countries, which indicates that the agricultural sectors are seriously vulnerable to exogenous shocks in those countries (climate events, international price fluctuations). In general, the macroeconomic performance of the agricultural sector was weak when compared with the total growth in these economies.

[19] Value obtained by comparing the average of absolute values in Burkina Faso and Mali for the period 2006-2010 with the average of absolute values in Kenya, Tanzania, and Uganda.

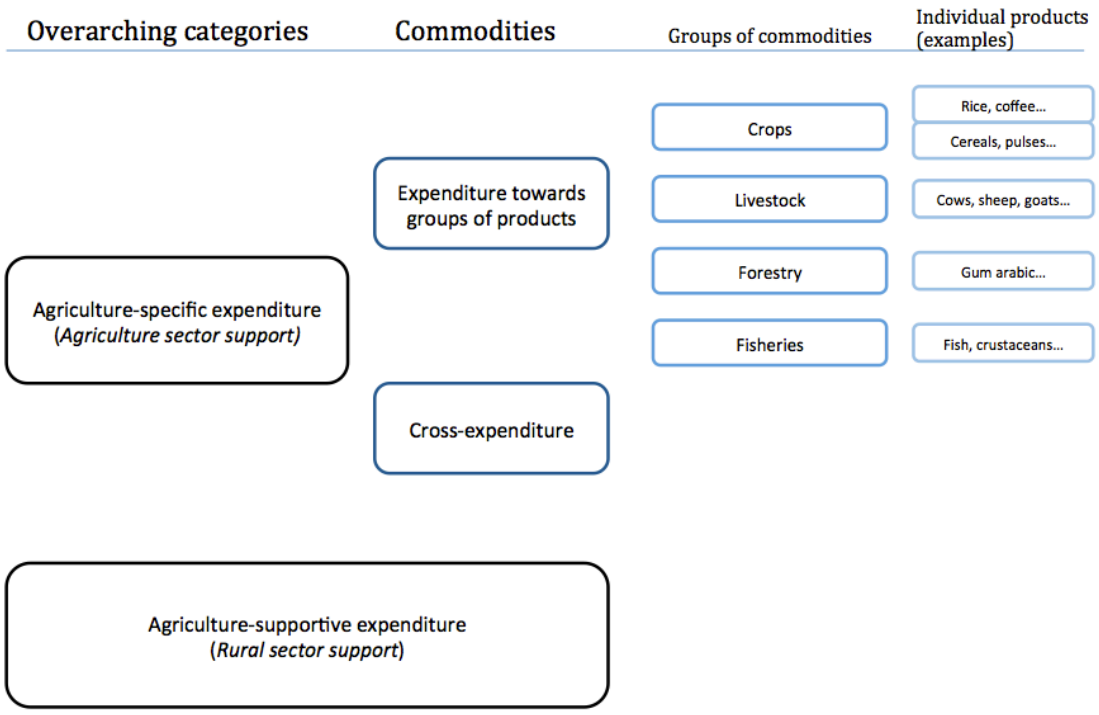
However, the decrease in agricultural spending is nuanced:

- the analysis period is brief in duration (5 years), and occurs in a specific context (the financial and food crisis of 2008);
- the decrease in public spending on agriculture is largely imputable to the decrease in donor contributions to the budgets of the countries analyzed, with the exception of Mali. National spending remained stable or actually increased, except in Tanzania, where it decreased;
- the decrease in public spending on agriculture certainly reflects a considerable decline in support to rural development, but it masks the consolidation of agriculture-specific expenditures;
- the amounts presented in our analysis have been deflated according to the Consumer Price Index for 2006. If one accounts for inflation, those amounts increased considerably between 2007 and 2010.

2.2.4. Commodities targeted by public spending on agriculture and rural development

This section presents the distribution of policy-driven expenditure in the five African countries, according to which spending is directed to individual commodities, groups of commodities, or all agricultural commodities as a whole (Figure 15).

Figure 15. Public expenditure classification by commodity.



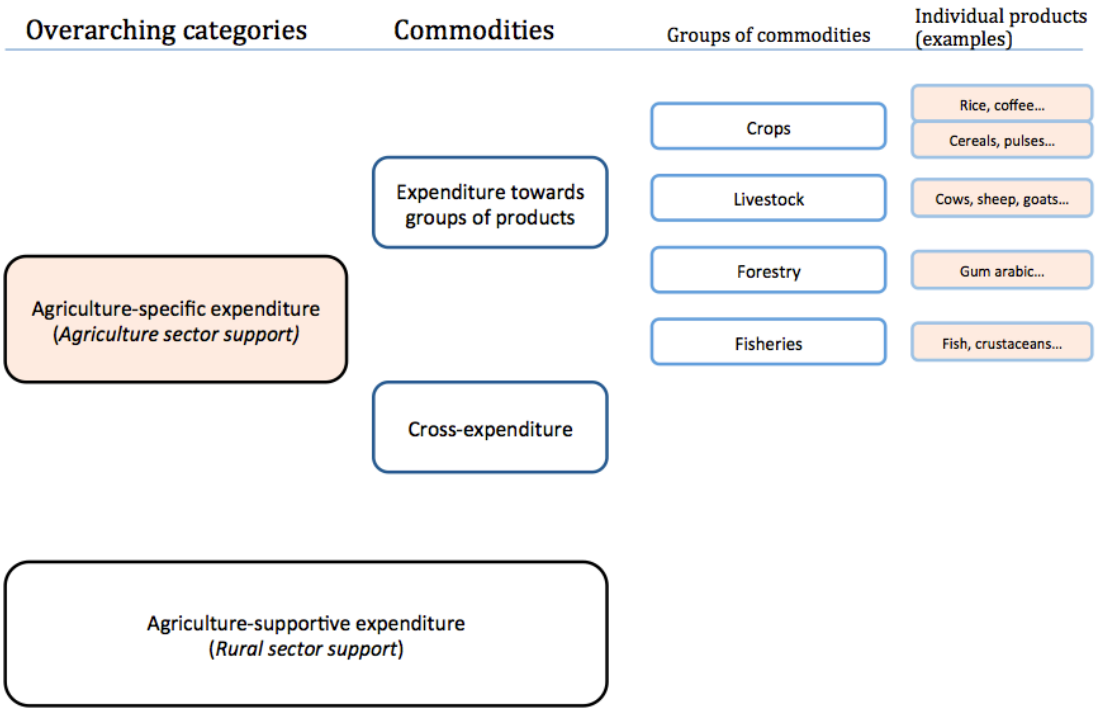
Source: Authors[20]

[20] By definition, the rural development expenditures do not include expenditure targeting individual or group of commodities.

Expenditures dedicated to single commodities through agriculture-specific spending

Figure 16 presents a visual representation of the public expenditure analyzed in this subsection.

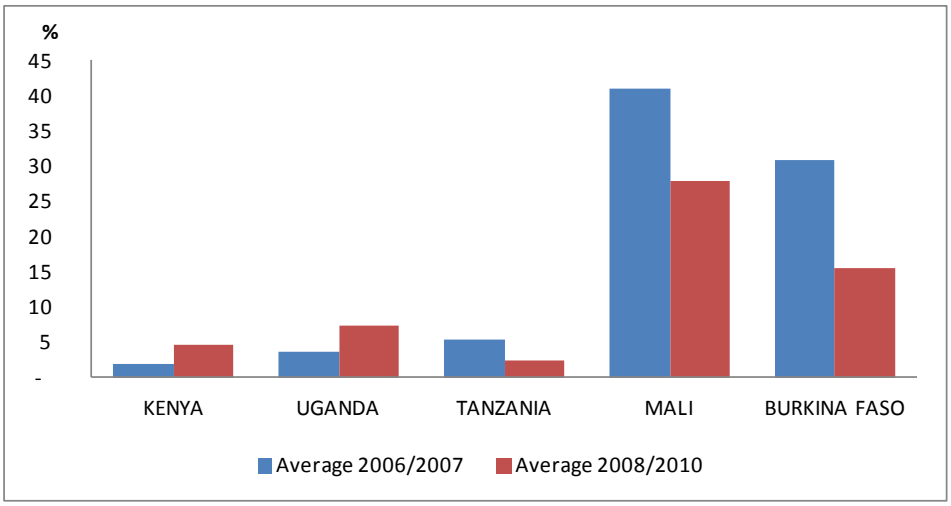
Figure 16. Single commodities targeted by agriculture-specific public expenditure, analyzed in this subsection.



Source: Authors

In light of the data obtained on classification averages, one notes that expenditures dedicated to single commodities constitute a considerable portion of agriculture-specific spending in Mali and Burkina Faso (Figure 17). However, this portion decreased during the two periods analyzed, dropping to an average of 28 percent in Mali and 16 percent in Burkina Faso during 2008-2010. In the East African countries, the portion of single commodity spending was much lower, dropping to below 5 percent during 2006-2010.

Figure 17. Share of agriculture-specific expenditure dedicated to single commodities in five African countries, averages for 2006-2007 and 2008-2010.

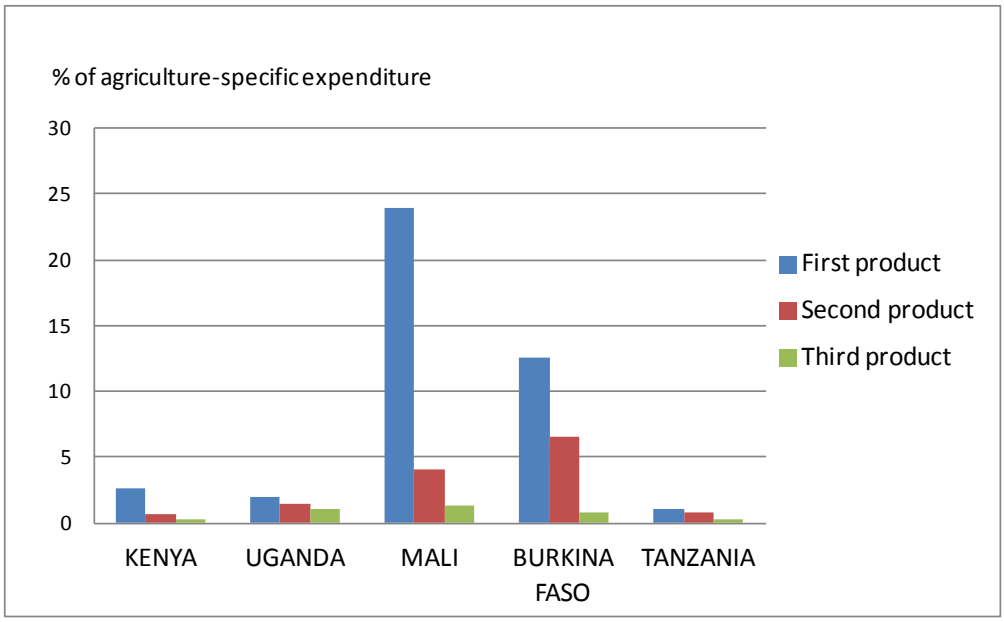


Source: own calculations based on budgetary data collected by MAFAP

At this stage, we can concentrate on the commodities that receive support in multiple countries (rice and cotton in East and West Africa, as well as coffee and tea in East Africa only) and compare the spending per commodity in each of the five countries. It is important to note that the expenditures discussed here are those that target these commodities specifically, which does not preclude the possibility that they also benefit from less targeted measures.

In general, it appears that Burkina Faso and Mali dedicate a greater portion of their agriculture-specific spending to single commodities as compared with the East African countries, which tend to direct spending towards groups of commodities or transversally target all agricultural commodities. This explains the prevalence of cash crops in Mali and Burkina Faso, particularly cotton, in light of the lack of support for food crops. Kenya, Tanzania, and Uganda have more diversified agriculture, and public spending therefore covers a wider range of products. Figure 18 demonstrates the particular importance in Mali and Burkina Fast of the two most supported single crops, cotton and rice.

Figure 18. Share of agriculture-specific expenditure dedicated to the most supported individual commodities in five African countries, averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP

- Expenditures specifically for rice and cotton in West Africa

Rice is most supported in Mali, with 24 percent of agriculture-specific spending dedicated to rice as a single commodity during 2006-2010. This reflects the Malian government's desire to stimulate the production of rice in order to limit dependence on imports. Rice is the primary cereal consumed in urban zones, and the third-most consumed cereal in the country overall, after millet and sorghum. On the other hand, one notes that millet and sorghum, which are the most consumed cereals in rural zones, receive little spending. In fact, the government attaches less importance to raising production of these food crops to a commercial level, and, as demonstrated in section 1.3, actually limits export of these food cereals through non-tariff barriers to trade.

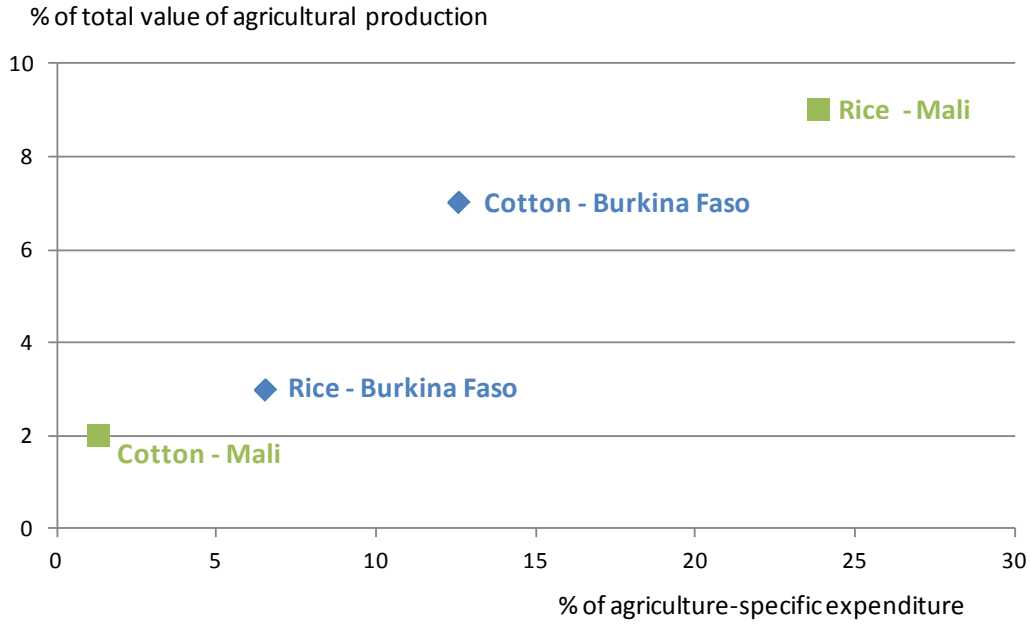
Burkina Faso has set similar policy targets, and dedicated 6.5 percent of its agriculture-specific spending to rice during 2006-2010, therefore offering the most support to this commodity, after Mali. The significant disparity between the spending shares directed specifically to rice in Mali and Burkina Faso reflects the differing strategic importance of the commodity in each of the two countries. In fact, only half as much rice is consumed in Burkina Faso in kg/person/year (FAOSTAT, 2012). However, consumption of the cereal is increasing at a rate of 5.6 percent per year (Guissou, Ilboudo, 2012), which exceeds the rate of demographic growth, suggesting that in Burking Faso public spending may increasingly target rice in the years to come.

No expenditure for rice as an individual commodity was recorded in Tanzania or Kenya, and spending in Uganda was low as compared with the West African countries.

As regards cotton, it was in Burkina Faso that this commodity received the most attention from public authorities, receiving 12 percent of agriculture-specific spending during 2006-2010. The resources dedicated to cotton in Burkina Faso are consistent with the production value of cotton as a share of the total value of agricultural production (Figure 19). Similarly, though Mali dedicated only 1 percent, this is consistent with the low production value of cotton with respect to the total value of

Malian agricultural production. However, it should be noted that the analysis only partially accounts for spending on the cotton sector in Mali. Via the Malian Textile development Company, the government provides considerable subsidies to cotton production inputs, but it is difficult to access these amounts. In general, cotton is much more supported in the two West African countries than in the three East African countries. It should also be clarified that the total production value share represented by cotton corresponds to unprocessed cottonseed, while the figures for cotton fiber would be much higher in both countries.

Figure 19. Share of agriculture-specific expenditure dedicated to rice and cotton, and share of total agricultural production value (rice paddy and cottonseed) in Mali and Burkina Faso, averages for 2006-2010.

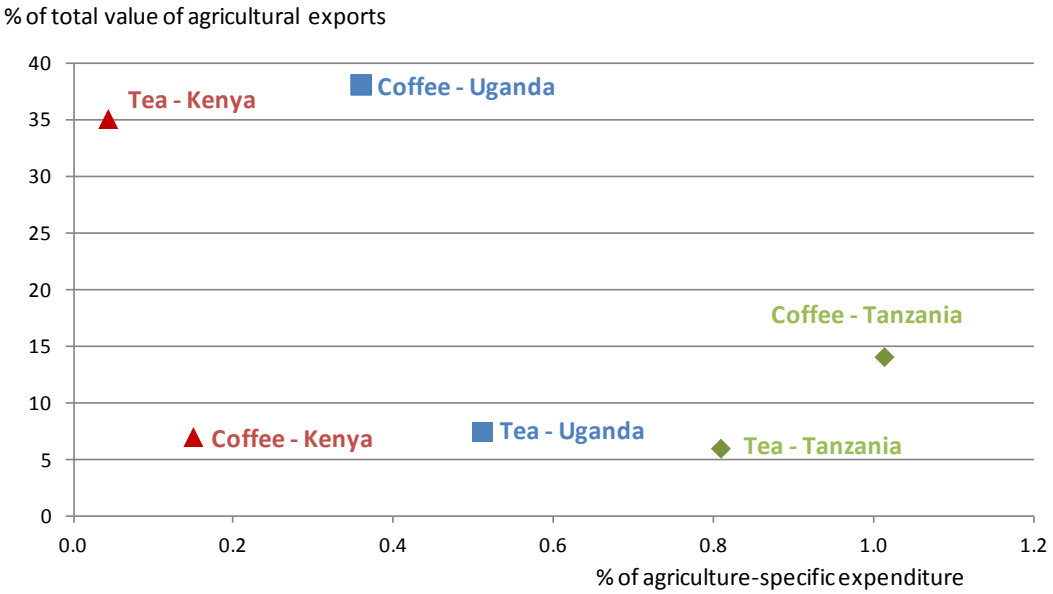


Source: own calculations based on budgetary data collected by MAFAP and FAOSTAT, 2012

- Expenditures specifically for tea and coffee in East Africa

Coffee and tea do not receive funding in the West African countries because production is non-existent, but an important emphasis is placed on these commodities in the East African countries. However, one must remember that single commodities receive less support in East Africa than they do in West Africa (Figure 17). The country that most supports the production of coffee and tea is Tanzania, where they are the second and sixth national exports, respectively. Coffee received 1 percent of public spending during 2006-2010, and tea received 0.8 percent. Uganda allocated a limited portion of public spending to coffee, despite the fact that it represented 38 percent of export revenue on average during 2005-2010 (FAOSTAT, 2012). Spending on coffee and tea was also limited in Kenya, particularly considering the importance of tea to the country's export revenue (Figure 20). However, it should be noted that the three countries in East Africa are increasingly turning to the private sector for the development of these sectors.

Figure 20. Share of agriculture-specific expenditure dedicated to tea and coffee, and their share of total agricultural production value (green coffee and tea) in Kenya, Uganda, and Tanzania, averages for 2006-2010.



Source: own calculations based on budgetary data collected by MAFAP and FAOSTAT, 2012

Structure of public spending on single commodities

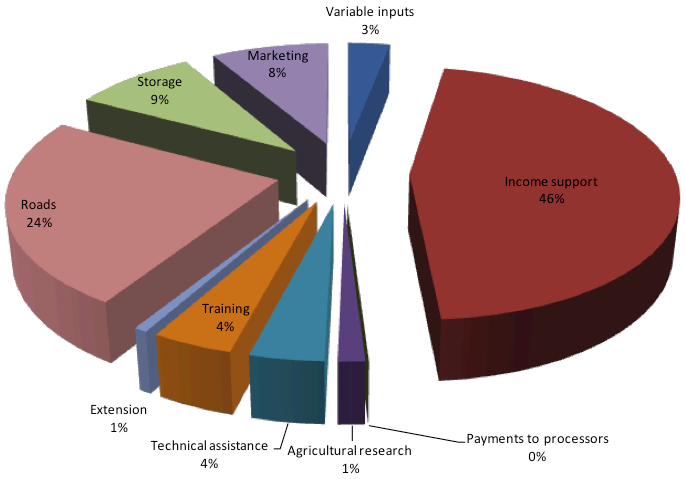
The structure of the public spending directed to the most supported single commodities can also be examined for each country.

- Cotton in Burkina Faso

In Burkina Faso, public spending directed specifically to cotton was dominated by support for revenue, which reached 46 percent (Figure 21). This is due to significant efforts on the part of authorities to encourage cotton producers through a smoothing fund[21]. The second form of support for cotton was the construction of roads (service roads) in order to open up the main production zones (24 percent of expenditures). By contrast, support for cotton in terms of extension, agricultural research, and payments to processors was low.

[21] The smoothing fund was put into place in 2005-2006 in order to finance cotton cultivation campaigns. At the beginning of each campaign, producers were guaranteed a price, and if the international price of cotton was lower than that guaranteed price at the end of the campaign, companies still paid the higher amount and financed the difference by drawing on the smoothing fund. A portion of the guaranteed price was also paid in advance, at the outset of the campaign.

Figure 21. Composition of spending on cotton in Burkina Faso, averages for 2006-2010.

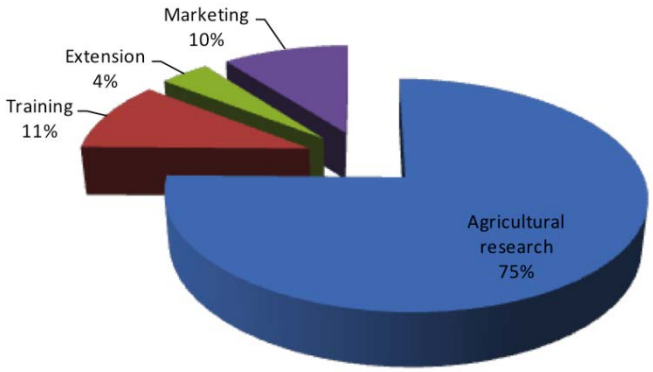


Source: *own calculations based on budgetary data collected by MAFAP*

- Coffee in Tanzania

In Tanzania, agricultural research occupies an important place among the public actions in favor of coffee (Figure 22), in contrast with cotton in Burkina Faso. These expenditures are accompanied by a modest but non-negligible proportion dedicated to marketing, extension, and training. The investment in agricultural research is therefore complemented by spending in categories that ensure the dissemination of accumulated knowledge.

Figure 22. Composition of spending on coffee in Tanzania, averages for 2006-2010.

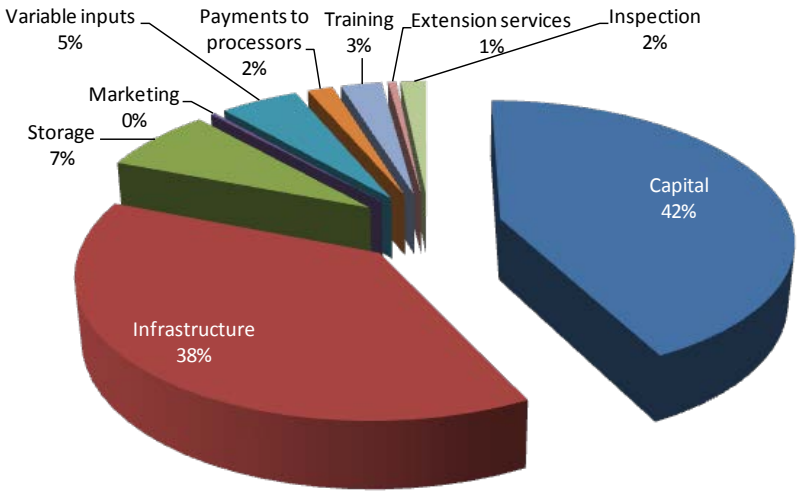


Source: own calculations based on budgetary data collected by MAFAP

- Rice in Mali

In Mali, expenditures for capital (infrastructure and equipment for producers) and collective infrastructure (mainly roads and irrigation) were prioritized among public actions in favor of rice. In fact, these expenditures absorbed 42 percent and 38 percent of spending on rice, respectively, between 2006 and 2010 (Figure 23). The capital and infrastructure in question consisted largely of irrigation equipment for farms (capital) or off farms (infrastructure). Variable inputs, distributed through the framework of the Rice Initiative beginning in 2008, were an equally important component in the capital category. Marketing and extension were the categories that received the least amount of spending on rice.

Figure 23. Composition of spending on rice in Mali, averages for 2006-2010

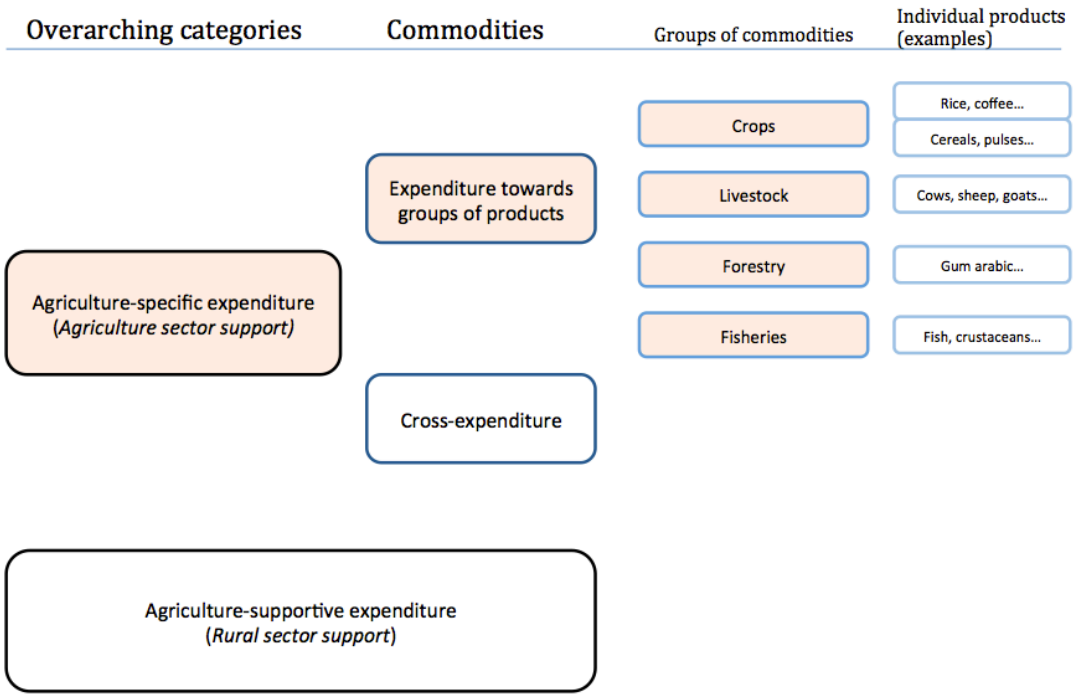


Source: own calculations based on budgetary data collected by MAFAP

Groups of commodities targeted by agriculture-specific public spending

Figure 24 presents a visual representation of the public expenditure analyzed in this subsection.

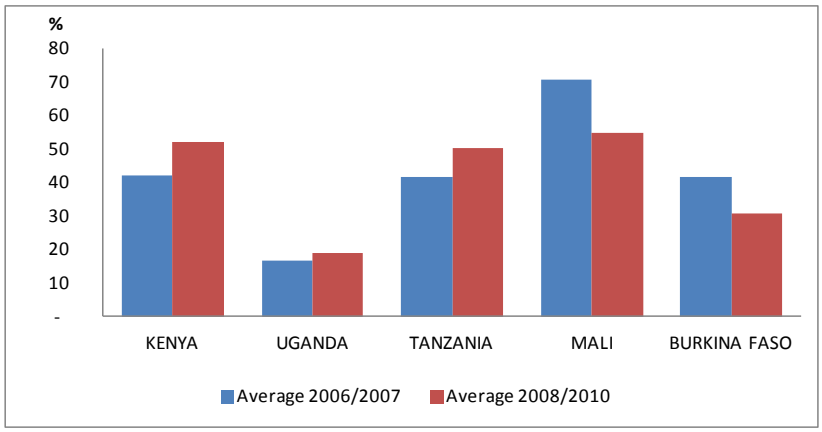
Figure 24. Groups of commodities targeted by agriculture-specific public expenditure, analyzed in this subsection.



Source: Authors

The study has also examined groups of commodities. Analysis of groups of commodities incorporates all the expenditures for commodities identified, whether they were targeted singly (as in the above section) or by type (cereals, pulses, etc.). Thus, the sum of public spending on groups of products and transversal agriculture and rural development expenditures equals the total direct public spending on agriculture. This typology was added to the original classification in order to provide supplementary analytic content. Four groups were considered: "crops", "livestock", "fisheries", and "forestry". In Mali, support for groups of products represents the largest portion of agriculture-specific spending (Figure 25). Figures are lower for Uganda, where the largest portion of agriculture-specific spending was directed towards all commodities as a whole.

Figure 25. Share of agriculture-specific expenditure dedicated to groups of commodities in five African countries, averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP

The country that provided the most support to crops is Mali, which dedicated an average of 64 percent of agriculture-specific spending to crops in 2006-2007. During 2008-2010, that figure decreased to 42 percent, which is nevertheless significant. Crops were equally important in Tanzania, where the portion of spending dedicated to crops was 37 percent on average in 2006-2007 and 41 percent on average during 2008-2010.

- Spending specifically on fisheries

Fisheries appear to have been the priority in Kenya and Uganda. This is likely explained by the considerable production of fish in the two countries, with Uganda producing 508,805 tons of fish and Kenya producing 155,265 tons in 2010 (FAOSTAT, 2012). Fisheries are little supported in Tanzania, at just 1.2 percent of agriculture-specific spending, which is surprising given that the country produced the equivalent of 342,935 tons of fish in 2010 (FAOSTAT, 2012).

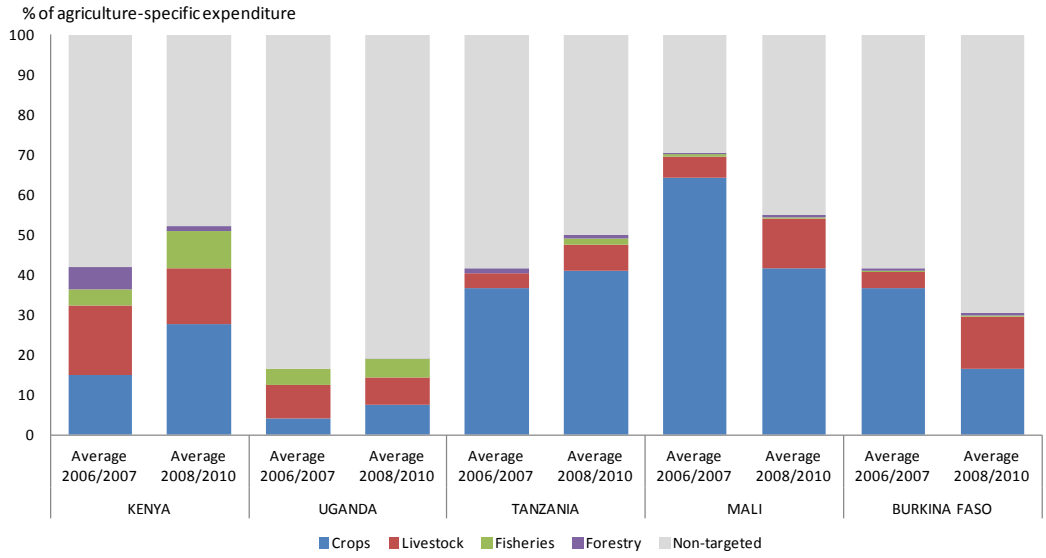
It is possible that a portion of the data linked to fisheries may have escaped the MAFAP research team's data collection efforts; however the data available indicate a serious policy inconsistency on the part of the Tanzanian government, given that the fishing sector is targeted by the Agricultural Sector Development Strategy (ASDS). A similar inconsistency occurs in Mali. That country produced 102,830 tons of fish in 2010, with fisheries contributing 4 percent of the GDP and employing 8 percent of the active population (PNUE, 2011). Despite the importance of the sector, fisheries received just 0.5 percent of agriculture-specific public spending during 2005-2010 in Mali.

Fisheries also received very limited support in Burkina Faso, though this is more in line with the national halieutic production, which is based almost exclusively on traditional fishing in rivers and seas, for a total production in 2010 of 14,820 tons (FAOSTAT, 2012).

- Spending specifically on livestock

It is in Kenya that livestock received the largest portion of agriculture-specific spending, during both 2006-2007 and 2008-2010 (Figure 26), followed by Burkina Faso, Mali, Uganda, and Tanzania. In Mali and Burkina Faso, a notable increase in agriculture-specific spending on the "livestock" commodities group occurred during 2008-2010 (+7.1 percent and +8.1 percent, respectively), which demonstrates the growing importance that the government places on this subsector. The percentage attributed to livestock in the 5 countries varies from a high of 15.8 (Kenya) down to 5 (Tanzania), a rather low range considering the importance of this sector to the national economies of these countries, and in terms of exports in Mali and Burkina Faso.

Figure 26. Share of agriculture-specific expenditures dedicated to four groups of commodities in five African countries, averages for 2006-2007 and 2008-2010.



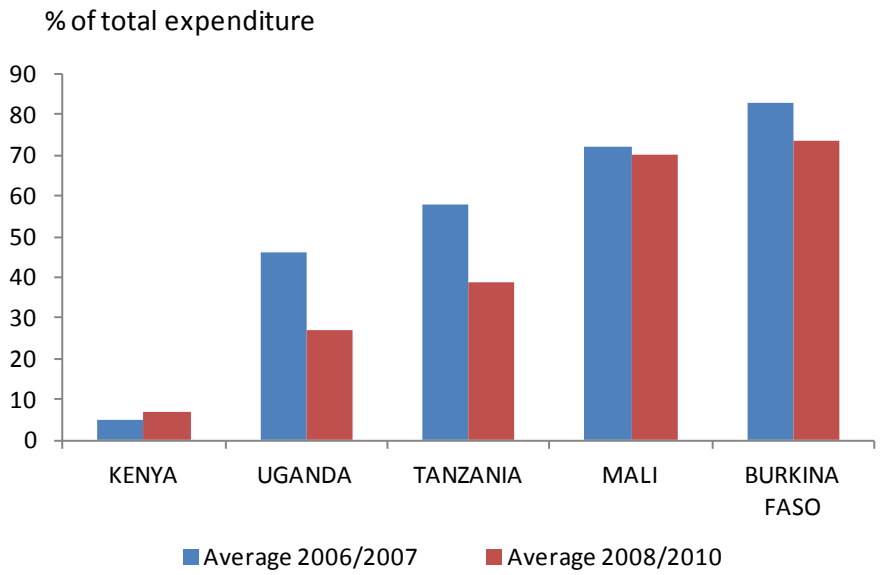
Source: own calculations based on budgetary data collected by MAFAP

2.2.5. Role of outside aid in public spending

The MAFAP methodology allows for classification of public spending on agriculture and rural development into two groups, according to the source of the financing. Spending that is financed by the national government is thus distinguished from spending financed by development partners. In this section, we present a comparative study of the portion of public spending financed by sources outside the five countries in question.

The data analysis reveals that Mali and Burkina Faso are highly dependent on outside aid for the financing of their agricultural sectors. This dependence is considerably less in the three East African countries, particularly Kenya, where foreign aid only represented 5 percent of total spending on the agricultural sector between 2006 and 2007 (Figure 27).

Figure 27. Share of external financing in the total spending on the agricultural sector and rural development of five African countries, averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP

As compared with the 2006-2007 period, the externally funded portion of agriculture spending in Burkina Faso, Mali, Tanzania, and Uganda was decidedly lower in 2008-2010. This indicates a significant effort by these countries to diminish the dependence of their policies vis-à-vis external sources. For example, Uganda and Tanzania recorded a decrease of 19 percent in the outside financing of their agriculture expenditure between the two periods (Table 5).

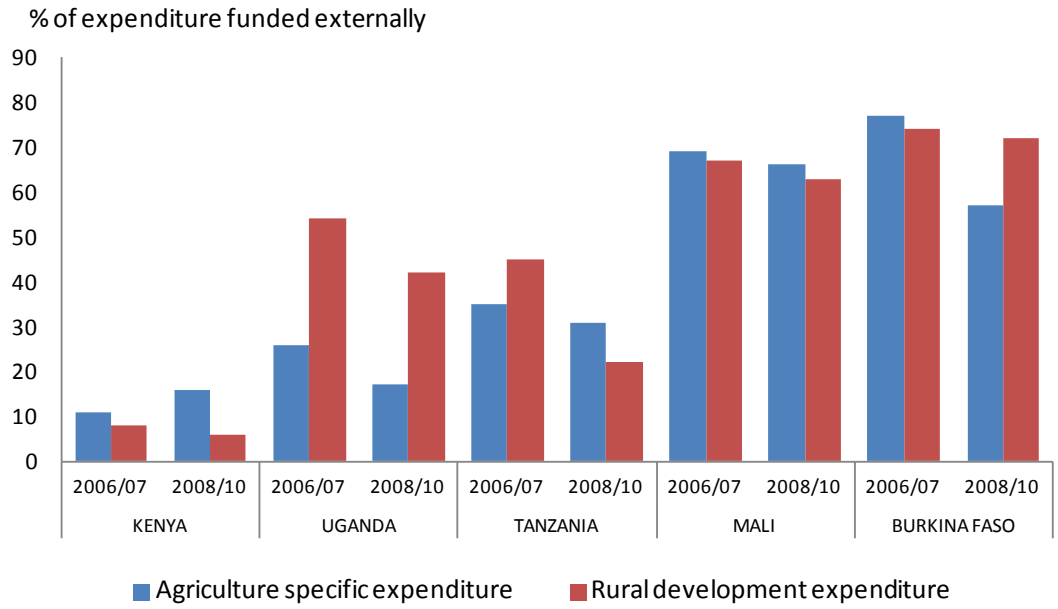
Table 5. Variance in the portion of public spending on agriculture contributed by aid, for the periods 2006-2007 and 2008-2010.

Country	KENYA	UGANDA	MALI	BURKINA FASO	TANZANIA
Variance (in % points)	2	-19	-2	-10	-19

Source: own calculations based on budgetary data collected by MAFAP

Aid was also analyzed as a function of the two broad categories of public spending on agriculture: agriculture-specific spending and spending in support of rural development (Figure 28).

Figure 28. Share of external financing in agriculture-specific spending and spending in support of rural development in five African countries, averages for 2006-2007 and 2008-2010.



Source: own calculations based on budgetary data collected by MAFAP

Within total public spending on agriculture, agriculture-specific expenditure was highly dependent on external aid during the period studied. In fact, development aid financed 79 percent of agriculture-specific spending in Burkina Faso and 68 percent in Mali between 2006 and 2010. In Uganda and Tanzania, percentages were 46.5 and 38, respectively. As for Kenya, which depends very little on development aid, only 4.6 percent of agriculture-specific spending was financed externally during that same period.

The portion of spending in support of rural development that was financed by aid was even higher, with averages of 85 and 82 percent in Burkina Faso and Mali, respectively, between 2006 and 2007. Percentages for Uganda and Tanzania were 47.8 and 45.3, respectively. Kenya barely used any external funding to finance its spending in support of rural development.

In terms of trends over time, one notes a decrease in the portion of spending financed externally, both in terms of agriculture-specific spending and rural development. This may indicate that countries made increased efforts to take charge of financing agriculture with their own funds, or it may indicate the withdrawal of donors and countries' inabilities to compensate for the decrease in aid. In Uganda, for example, the portion of aid in agriculture-specific spending decreased by 13 percent between 2006-2007 and 2008-2010, and the portion of aid in agriculture-supportive spending dropped by 24 percent during the two periods (Table 6). The only notable increase occurred in the portion of aid in agriculture-supportive spending in Mali, which rose by 6 percent between 2006-2007 and 2008-2010.

It is essential to clarify that the decrease in development aid, particularly following the financial crisis in 2008, appears to be one of the main reasons for the decrease in public spending in the States under study, since national governments have in fact increased their contributions to the agricultural sector.

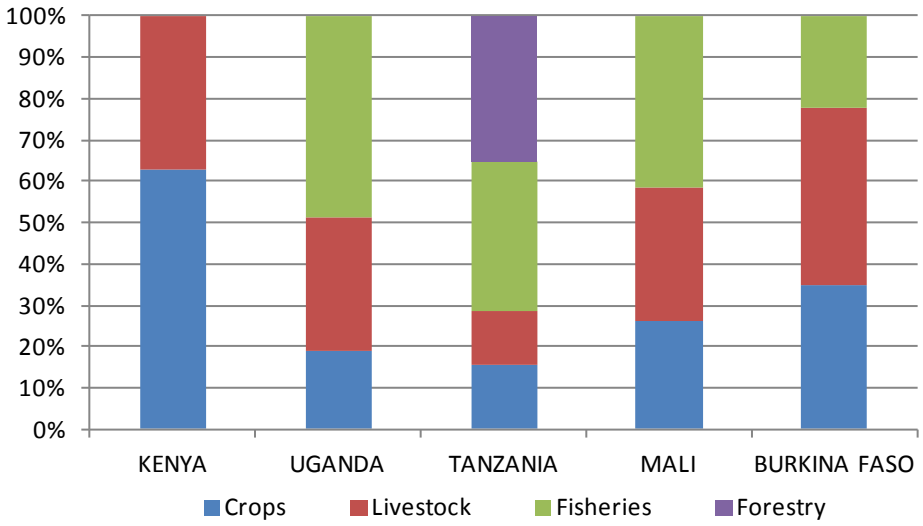
Table 6. Variance in the portion of public spending on agriculture contributed by aid, broken down into broad categories of public spending.

Country	KENYA	UGANDA	MALI	BURKINA FASO	TANZANIA
Variance in specific expenditure	1	-13	-4	-11	-17
Variance in supportive expenditure	0	-24	6	-6	-6

Source: own calculations based on budgetary data collected by MAFAP

Aid can also be broken down according to the groups of commodities that received support. In general, forestry was not the subject of external financing, with the exception of Tanzania. In Uganda, Mali, and Burkina Faso aid was equally divided between fisheries, livestock, and crops (Figure 29).

Figure 29. Share of external funding for the four commodity groups in 5 African countries, averages for 2006-2010.

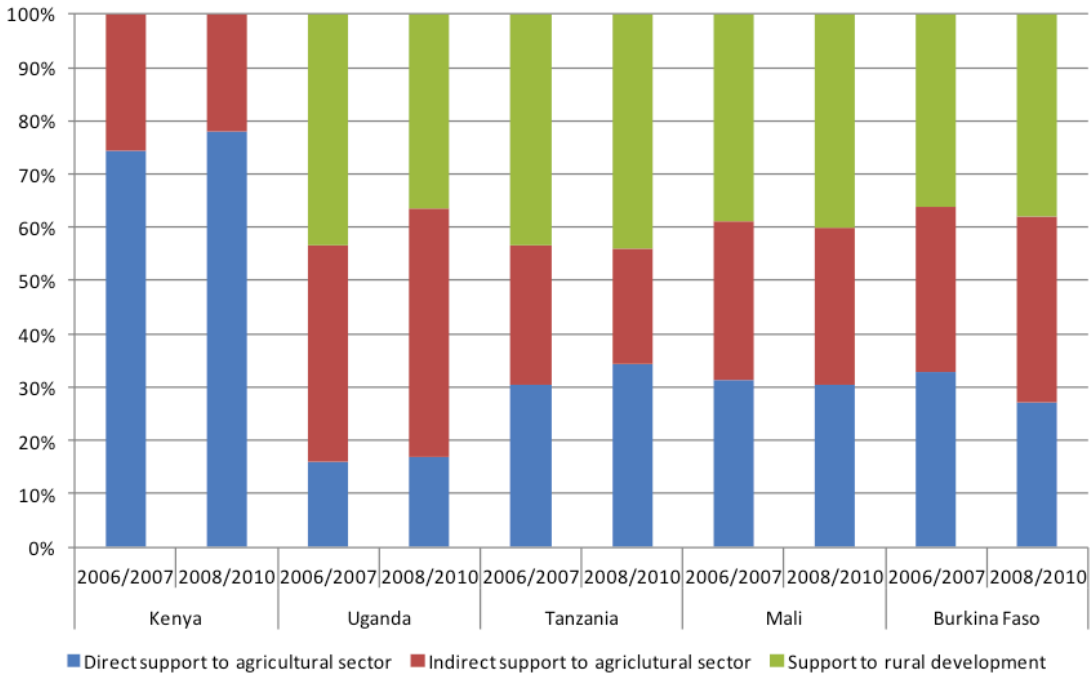


Source: own calculations based on budgetary data collected by MAFAP

The breakdown of development aid into the three broad categories of direct support for agriculture, indirect support for agriculture, and support for rural development reveals that in Mali, Burkina Faso, and Tanzania aid is oriented predominantly towards rural development rather than direct and indirect support for agriculture (Figure 30). By contrast, in Kenya and Uganda the latter two categories combined are consistently higher than support for rural development[22].

[22] The Kenya data are incomplete, as the MAFAP team was not able to identify the spending that corresponded to support for rural development.

Figure 30. Composition of external financing according to three categories of spending in 5 African countries, averages for 2006-2010.



Source: own calculations based on budgetary data collected by MAFAP

Comparing Policy Coherence

The identification and analysis of strategic frameworks, policy decisions, and public expenditures allow for an assessment of policy coherence in the 5 countries. This section therefore proposes to compare the strategic objectives and policy orientations of rural and agricultural policies as well as their implementation, meaning the policy decisions, measures, and public expenditure in that sector. This approach has been derived from the MAFAP analysis methodology for policy coherence (MAFAP, 2012). The complete MAFAP methodology also includes the effect of policies on prices as an element of comparison, so only a partial approach is presented here.

3.1. Consumer-oriented policies

Since consumers are not at the heart of the policy strategies in the countries considered, it is not surprising that expenditures in support of consumers were very low. Governments preferred to use trade and pricing policies rather than public spending in order to support consumers. The West African countries (Mali and Burkina Faso) are distinguished by their policy strategies and measures that more specifically target food security than those in East Africa, which adopted more general strategies and policies aimed at increasing consumer revenues.

Indeed, the policy strategies and orientations that target food security are more explicit, though not very elaborate, in West Africa. For example, they prioritize government response to the food crisis. The share of agriculture-specific expenditure dedicated to consumer-oriented spending increased by 6 percent during 2006-2007 and 12 percent during 2008-2010 (Figure 7), and took the form of food aid and school meal programs. Trade-related measures were a more important policy instrument for supporting consumers, with extensive price caps and a decrease in import taxes on food products during the 2007-2008 crisis.

Although Mali adopted strategic orientations similar to those of Burkina Faso, policy measures targeting Malian consumers were more limited, as were consumer-oriented public expenditures, which received only 2 and 1 percent, respectively, of agriculture-specific spending during the two periods of study, mostly in the form of food aid. Pro-consumer trade-related measures received more support, with price capping for rice and the elimination of import taxes on rice, milk, and vegetable oil.

In Mali and Burkina Faso, government response to emergencies consisted in accumulating stocks and selling a portion of them at a low price. However, stock-related spending was low in Burkina Faso (1 percent of indirect support during 2006-2010) while it represented a significant, though declining, share in Mali (12 percent and 6 percent of indirect support for the two periods).

The government of Kenya did not announce a detailed strategy for consumer support, and the budgeted spending for consumers and the accumulation of food stocks was low (1 percent of agriculture-specific expenditure during 2006-2010, in the form of school meal programs). Policy measures such as the implementation of school meal programs and decisions regarding the accumulation of emergency stocks were recorded. Pro-consumer policies in Kenya were based more on pricing and trade policies, with extensive price capping and a decrease in import taxes.

In Tanzania and Uganda, strategies targeting consumers were more general, and focused on improving the quality of life and development in rural areas. Indirect spending on consumers therefore remained low in both countries. Tanzania emphasized measures that targeted the stability of food prices and the availability of food products by implementing price caps and accumulating operational food stocks. Spending related to stocks decreased during the period of analysis (12 percent of agriculture-specific expenditure during 2006-2007 and 0.5 percent during 2008-2010). In Uganda, global measures were put in place to support consumers, including decisions regarding increased earnings and job creation. However, as these measures are not specific to the agricultural or rural sector, they were not considered in the analysis of public spending.

The low public spending and weak support for consumers and the accumulation of food stocks in East Africa appear to be consistent with the countries' strategies, which only briefly mention support for consumers. The countries in West Africa place a greater emphasis on this aspect as regards public spending, which were nevertheless limited considering the support for producers and the food price crisis that affected all the countries under study in 2007 and 2008. This limited consumer-oriented public spending is explained in part by States' preference to use trade and pricing policies to protect their consumers. It should also be noted that in the 5 countries, producers also represent a significant portion of consumers, and therefore the measures that support producers also indirectly benefit consumption in rural areas.

3.2. Producer-oriented policies

Pro-producer strategies are more homogeneous than pro-consumer strategies across all countries. However, they translate into very different policy measures and compositions of public spending. Although indirect support for agriculture was much higher than direct support in all countries, the nature of the support that producers received – on an individual or collective basis – differs by country.

3.2.1. Mali and Burkina Faso: irrigation and lack of research

In West Africa, governments targeted the development of infrastructure (roads and off-farm irrigation) and decreased payments to producers during the period of analysis. By contrast, East African governments placed the emphasis on production and knowledge dissemination, and increased payments to producers.

Although the increase in production and productivity are priorities in Burkina Faso and Mali, payments to producers tended to decrease, from 40 to 35 percent of agriculture-specific spending in Mali and from 52 to 36 percent in Burkina Faso.

Policy strategies concerning producers aimed at improving access to inputs and modernization of production. However, subsidies for variable inputs (seeds, fertilizers, credit) arrived late in Burkina Faso (2008-2010) and were recorded for a few products in Mali (rice, wheat, but mainly maize). In addition, public spending dedicated to variable inputs was particularly reduced as compared with inputs for fixed capital (equipment), though it did increase during the period of analysis (from 10 to 17 percent of input subsidies in Mali and from 15 to 37 percent in Burkina Faso from 2006 to 2010). As such, spending on fixed capital inputs was the primary expenditure for general input subsidies, and was mainly comprised of aid for the acquisition of irrigation equipment.

Spending on irrigation was coherent not only with the strategy of both countries to increase cultivated surfaces through irrigation, but also with the policy measures put in place for the development of rice and cotton production, for which irrigation is essential. Rice is the most supported product in terms of spending in Mali, and the second most supported in Burkina Faso.

As regards other sectors, one notes that no policy measures targeted animal husbandry, even though public spending on that sector increased in both countries between 2006 and 2010 (from 5 to 12 percent of expenditure on groups of commodities within agriculture-specific spending in Mali, and from 4 to 13 percent in Burkina Faso).

In terms of specific spending in indirect support of agriculture, infrastructure (roads and irrigations systems in particular) was the main recipient of spending in Mali and Burkina Faso, followed by knowledge dissemination (technical assistance, training, and extension). As such, policy strategies and measures that strongly favored irrigation in the two countries are consistent with public spending, irrigation representing more than half of the total agriculture-specific expenditure on infrastructure. However, in Mali spending on infrastructure reflected a downward trend (from 47 to 31 percent of indirect agriculture-specific spending between 2006-2007 and 2008-2010).

Strategies and policy measures for knowledge dissemination in Burkina Faso were less developed, and spending diminished slightly from 2006 to 2010 (from 41 to 35 percent of indirect agriculture-specific spending between 2006-2007 and 2008-2010). These strategies are more explicitly outlined in Mali (extension and support for training) but were lower than in Burkina Faso in relative terms. However, spending on knowledge dissemination in Mali increased (from 18 to 25 percent of indirect agriculture-specific spending).

Agricultural research is mentioned in the policy strategies of the two countries, but receives a low portion of spending (an average of 4 percent of indirect agriculture-specific spending in Mali and 12 percent in Burkina Faso). The development of processing activities has an important place in the strategies of the two countries, but payments to producers were recorded only for Mali, and were very low (2 percent of agriculture-specific spending).

3.2.2. Kenya, Tanzania, and Uganda: technology and diversified support

In the 3 East African countries, spending that targeted producers increased, although support to the sector was general between 2006 and 2010 in Tanzania and Uganda. In the West African countries, support for producers occurred mainly through input subsidies. In Kenya, the composition of subsidies was similar to those in West Africa, with the majority dedicated to equipment. However, in Tanzania and Uganda, variable inputs received the most subsidies, and the portion of spending they receive increased between 2006 and 2010. Producers' access to equipment (capital) was also part of the strategies in Uganda and Tanzania, and policy measures were implemented in this respect. Specifically, governments established tax exemptions to favor modernization and the purchase of equipment, but this loss of revenue was not captured by the MAFAP analysis of public expenditure due to the difficulty of calculating the amount of loss. The same is true as regards agricultural services, which are widely developed in Kenya but appear to be weaker in Uganda and Tanzania, though tax exemptions in favor of agricultural services were also applied in Tanzania.

The definition of priority commodities in terms of strategies, policy measures, and spending is unclear in these three countries. Strategies and policy measure in Kenya target cash crops (coffee, cotton, and sorghum, due to its increasing use in the beer industry) but the most supported products are maize and cotton. In Tanzania, strategies emphasize products that are easily processed and for which international demand is high. In keeping with that strategy, the products most targeted by spending are coffee, tea, and cashews, while policy decisions focused primarily on cereals and animal husbandry, which are the products most oriented to domestic demand. In Uganda, with the exception of cotton, strategies do not deal with particular products, yet the policy measures in place specifically target maize, rice, beans, fisheries, and animal husbandry. Meanwhile the products that receive the most spending are vegetable oil, bananas, and cotton. This dichotomy suggests that East African governments use public spending to support cash crops first and foremost, and use policy decisions – particularly trade-related ones – to support the products that are most important to food security.

As regards indirect support for agriculture, the three East African countries placed a heavier accent on research and training than on the development of infrastructure. In fact, although development of agricultural infrastructure is a recurrent theme in policy strategy documents, spending on infrastructure was lower than in West Africa, and particularly limited in Tanzania. This is certainly due to the fact that Tanzania's strategies focus on the development of public-private partnerships in order to promote the improvement of infrastructure. In Kenya and Uganda, spending on infrastructure was similar (between 10 and 25 percent of indirect agriculture-specific spending) with an upward trend in Kenya and a downward one in Uganda. In keeping with the policy decisions in place, the Ugandan government focused as much on irrigation as on the development of roads. The government seems to have made real efforts in terms of infrastructure, which received a portion of indirect spending on agriculture similar to that of the West African countries.

Strategies emphasized the development of agricultural research, training, and extension, and the policy decisions regarding production and dissemination of knowledge were particularly developed in Uganda. Total spending on training, technical assistance, and extension represented nearly half of all indirect expenditure in support of agriculture in the three countries. These declined slightly in Kenya and increased in Tanzania and Uganda during the period of analysis. Indirect spending on research was equally significant (27 percent in Kenya, 23 percent in Tanzania, and 24 percent in Uganda on average as a portion of indirect support for agriculture during 2006-2010), though it decreased in Kenya and Uganda, and increased slightly in Tanzania. One therefore notes coherence between the goals of East African States in terms of developing technology and research, and actual spending. This is a major difference between the East and West African countries, and is also consistent with the findings of the Agricultural Science & Technology Indicators project (Beintema, Stads, 2011).

Promoting a climate that is favorable to agribusiness, processing activities, and private sector investments is also a priority in East African countries. Different mechanisms have been put in place, such as payments to processors in Tanzania - the only actor to receive payments aside from producers – though they are declining (from 8 to 2 percent of direct agriculture-specific spending on average for the periods 2006-2007 and 2008-2010). In Uganda, tax exemptions and credit facilities were offered to the agribusiness sector, and measures were also implemented that facilitated access to credit for producers seeking to purchase food-processing equipment.

3.3. Trade and macro-economic policies

Strategies that aim to improve market access occur in all countries and have an important place among the objectives in their strategic frameworks. Spending to facilitate commercialization in the five countries has been recorded, and is limited as compared with other areas of indirect spending (ranging from a nominal value of 5 percent of indirect agriculture-specific spending in Burkina Faso, to 14 percent in Mali, during 2006-2010). Spending increased in Mali, Burkina Faso, and Kenya, and decreased in Tanzania and Uganda, though spending on roads was significant in the latter two countries. No payments to transporters or retailers were recorded. It is clear that, in terms of public spending and policy measures, commercial development is not keeping pace with the ambitious objectives set in these States' strategic frameworks.

As regards external market access and particularly export development, both of which were included in every country's strategy, policy measures and public spending were mixed. One the one hand, certain cash crops were heavily supported with input subsidies, while on the other hand export restrictions were put in place for numerous food crops, cereals in particular.

3.4. Coherence of policies with the NEPAD Comprehensive Africa Agriculture Development Programme

All the countries analyzed have signed the Comprehensive Africa Agriculture Development Programme (CAADP) approved by the African Union in 2003. The objective of the CAADP is to accelerate growth through the promotion of agricultural development in order to eradicate hunger, reduce poverty and food insecurity, and raise market objectives.

The agreement was signed by Mali in 2009 and by Burkina Faso, Kenya, Uganda, and Tanzania in 2010. Corresponding implementation documents were subsequently produced in order to guide the enactment of the program. The above review of strategies and policy measures, as well as the analysis of public spending, correspond to the 2006-2010 period. One can therefore compare CAADP objectives with the orientations and progress that characterized the period prior to its implementation.

Increasing investments that support the agricultural sector

In order to achieve the CAADP objectives, governments agreed to increase public investment in agriculture by at least 10 percent of their national budgets over 5 years. As we have seen above, the national budgets of Mali, Burkina Faso, and Uganda are above the Maputo goal for the two periods, 2006-2007 and 2008-2010. While Tanzania had already surpassed that objective in 2006-2007, spending in 2008-2010 dropped below the Maputo goal. As for Kenya, the national budget dedicated to agriculture remained below the objective for the entire period. Aside from the Kenyan government, which increased budgeted spending from 6 to 7 percent, and that of Mali where spending stagnated at 11 percent (above the objective) the budget allocated to agriculture diminished in all the other countries, thus moving further away from the Maputo targets. It should be noted that these results vary according to the analysis methodology applied to public spending.

Pillar 1: Sustainable management of water and land resources

The objective of pillar 1 is to increase the total cultivated surface while ensuring sustainable management of land and water resources (NEPAD, 2010). The issues of access to land and water management are little developed in the strategies and policy measures of these countries. Sustainable management of natural resources and the environment is mentioned, but the programs implemented do not seem to systematically take this dimension into consideration, and the analysis of public spending does not allow for an accounting of regulatory measures concerning land and water management. A variety of policy measures targeted the development of water infrastructure, but the analysis methodology does not address whether those measures respect the criteria of sustainability.

Pillar 2: Improved market access

The objective of pillar 2 is to improve market access by reinforcing rural infrastructure and other interventions linked to commercialization. Strategies therefore target the improvement of local infrastructure in order to better connect producers to markets, to improve competition through adequate trade policies, to reinforce capacities at the heart of the agricultural sector, to facilitate commercial partnerships with export companies, and to establish strategic alliances in order to create links between industries and increase direct investment in agriculture (NEPAD, 2010). This therefore involves reinforcing the integration of domestic markets with regional and international ones and targeting value chains with high potential for revenue generation.

Although the portion of the budget dedicated to infrastructure was higher in Mali and Burkina Faso, it was mostly dedicated to development of irrigation infrastructure and not to the development infrastructure along transportation routes. The amounts and composition of spending on infrastructure also diverged in East Africa, with a very low amount in Tanzania, a moderate amount in Kenya though with low spending on the development of main thoroughfares, and a moderate amount in Uganda, where half the infrastructure budget was allocated to roads.

Infrastructure spending not specific to agriculture but in support of rural development includes spending on roads, water and sanitation, and energy, and the composition of that spending varies according to country. Expenditures are dedicated mainly to the development of roads in Mali (90 percent of spending on infrastructure and in support of rural development), while approximately half of spending on infrastructure not specific to agriculture was dedicated to roads in Burkina Faso, Uganda, and Tanzania (from 44 percent of spending on rural infrastructure in Burkina Faso, to 62 percent in Tanzania). Spending on roads was quite low in Kenya. However, direct support for commercialization was recorded for all five countries, and that expenditure trended upwards in West Africa and Kenya, though it decreased in Tanzania and Uganda. As such, the portion of spending dedicated to the development of infrastructure and commercialization was low in all countries except in Uganda, where a real effort was made to develop main thoroughfares.

Although a general willingness to facilitate market access for producers was present in the policy strategies, indirect spending in support of commercialization remained limited, representing approximately 10 percent of indirect spending in support of agriculture (except in Mali, where they reached an average of 19 percent during 2008-2010). This constitutes a notable divergence between

policy orientations targeting the development of domestic markets and the portion of the budget that is dedicated thereto.

Development of commercial product sectors was a policy goal in all countries, and the products most supported by public spending Uganda and Tanzania were essentially cash crops. In West Africa and Kenya, crops of importance in terms of food security, such as rice in West Africa and maize in Kenya, were also supported in addition to cash crops.

Pillar 3: Promotion of food security

Pillar 3 concentrates on food provisioning and the reduction of hunger through an increase in the productivity of small producers and improvements to emergency response measures. This pillar therefore simultaneously targets the agricultural growth implicit in Millennium Development Goal (MDG) #1 (to halve poverty and hunger by 2015). The strategies for reaching this objective include agricultural productivity, market integration, and increased energy purchasing power for vulnerable groups, together with the eradication of hunger, malnutrition, and poverty.

Food security is addressed very little in the policy strategies of all countries when compared with the emphasis placed on increased productivity or expansion of trade. One notes differences between various countries' approaches to food security and pro-consumer policies. Approaches in West Africa and Kenya were more specific than those in Uganda and Tanzania, and involved a large number of pro-consumer actions, in part via trade measures, placing a particular emphasis on the availability of foodstuffs and the improvement of nutritional status. West African governments also sought to improve crisis prevention and management, whereas in Tanzania and Uganda strategies for promoting food security were less explicit and included policy measures targeting improved quality of life of consumers. Approaches to food security in the West African countries (eradication of hunger and malnutrition) were therefore different from those in East Africa (poverty).

Pillar 4: Investments in agricultural research

The goal of this pillar is to improve agricultural research and agricultural systems in order to disseminate new technology. Spending on production (research) and knowledge dissemination (technical assistance, extension, and training) was higher in East Africa, reaching from 65 percent of agriculture-specific spending in Uganda to up to 77 percent in Tanzania, during 2006-2010, whereas it constituted only 27 percent in Mali and 49 percent in Burkina Faso. The breakdown of these expenses demonstrates that the three East African countries decreased the portion of total agriculture-specific in support of research, while expenditures stagnated in Burkina Faso and increased slightly in Mali. As such, spending on research tended to decrease or stagnate during the period of analysis.

Conclusion

The governments of the five African countries studied in the present document adopted strategic frameworks in the early 2000's that set out similar objectives for rural and agricultural development. They emphasized the development of a modern and competitive agricultural sector, increased productivity, and reinforcement of commercialization and processing activities. Consumers have a limited place within those strategic frameworks, although the notions of food and nutrition security are omnipresent. It is clear that the primary objective at the beginning of the 2000s was to improve medium-term production in order to increase revenues to the population and limit dependence on imports while also stimulating exports.

In 2006 and 2007, this development framework appears in the form of an increased share of public spending allocated to the rural sector overall (large infrastructure, health, education) and a decreased number of interventionist market policies. However, it is clear that the financial and food crises of 2007-2008 disrupted this balance.

African governments multiplied their emergency agriculture policies, which were often short-term, in order to limit the effects of rising food prices. The consumer, although little represented in the strategic plans, therefore became central under the circumstances. However, government support for the consumer was addressed through trade policy and not through use of the budget, since NGOs and donors such as the WFP were called on for assistance in coping with the emergency. Those trade policies mainly targeted the consumer: decreased or eliminated import taxes on widely consumed products, price ceilings and floors, and tariff or non-tariff export barriers for domestically consumed products. Only Uganda, which adopted a strong policy of market liberalization and non-interventionism, deviated from this practice.

Together with pro-consumer trade policies, public expenditure focused on direct or indirect support for producers, particularly in the Sahelian countries. Subsidies for capital (irrigation, equipment) and variable inputs (seeds, fertilizer) were the preferred tool for giving a quick boost to the production of cash crops and products for urban consumption. The countries in East Africa heavily subsidized variable inputs, though they also reserved a portion of the budget – albeit a low portion – for research and extension. This constitutes a difference as compared with West African countries, where those sectors received limited financing, especially research. Another difference lies in the support for more diversified crops recorded for the East African countries, as compared with the highly concentrated support for rice, maize, and cotton in the countries of the Sahel.

The important dichotomy between support for producers and support for consumers constitutes one of the policy inconsistencies revealed by the present analysis. Linked to the context of 2008, this inconsistency lies in the contradictory signals sent to the market, with simultaneous price reductions (which have repercussions for producers) and support for production.

Another major effect of the 2007-2008 financial crisis is the divestment of donors with respect to support for rural development and agriculture. It is evident that donor support plummeted in 2008, and then began a faltering climb back up in 2009 and 2010 in ever country except Mali. This divestment led to a concentration of public spending in support for the agricultural sector (with donors investing more in support for rural infrastructure), and pushed these African countries further from the Maputo targets. In fact, the portion of national spending on agriculture increased between

2005 and 2010 everywhere except Tanzania, but this did not compensate for the drop in external contributions. Although it is true that public spending on agriculture decreased in all the countries studied, except Kenya, the role that donor divestment played in that phenomenon must not be underestimated.

Finally, the increasing involvement of the private sector in these countries, particularly in the East African countries, should be noted. This growing importance of private actors tends to complicate investment analysis for the rural and agricultural sector. The private sector has become involved in processing, commercialization, and even certain agricultural and rural infrastructure, and this certainly contributes to a decrease in public spending on these sectors in countries like Tanzania. In this respect, there is clear coherence between the outlined objectives and the policies put into place.

The period of analysis is characterized by an exceptional set of international circumstances that had differing effects on the agricultural and food policies of the five African countries studied. The evolution of the agricultural policies analyzed here will need to be tracked over the coming years in order to better distinguish between situational trends and structural ones. The FAO and the African countries implementing the CAADP are committed to that effort.

References

AU (2003), Assembly of the African Union, "Second Ordinary Session, 10-12 July 2003, Maputo, Mozambique, decl. 7.

BARREIRO-HURLÉ, J. and DRUILHE, Z. (2012), "Fertilizer subsidies in sub-Saharan Africa", ESA Working Paper No. 12-04, Food and Agriculture Organization of the United Nations, http://www.fao.org/docrep/016/ap077e/ap077e.pdf.

BALIE, J., MAS APARISI, A., DIAKITE, L. ET DIALLO, F. (2012), « SPAAA : note technique sur le riz », FAO, Rome, and IER, Bamako.

BEINTEMA, STADS (2011). African Agricultural R&D in the New Millenium, Agricultural Science & Technology Indicators, International Food Policy Research Institute.

DAIDONE, S. and ANRÍQUEZ, G. (2011), "An extended cross-country database for agricultural investment and capital", ESA Working Paper No. 11-16, Food and Agriculture Organization of the United Nations, http://www.fao.org/docrep/014/am640e/am640e00.pdf.

FAO (2012), *The State of Food and Agriculture*, http://www.fao.org/docrep/017/i3028e/i3028e.pdf.

FAN, S. and Zhang, X. (2008), "Public Expenditure, Growth and Poverty Reduction in Rural Uganda", African Development Review, Vol. 20, Issue 3, pp. 466-496.

FAOSTAT (2012), http://faostat.fao.org/.

FAPDA (2013), *Food and Agriculture Policy Report in Burkina Faso*, FAO, Rome.

FAPDA (2013), *Food and Agriculture Policy Report in Kenya*, FAO, Rome.

FAPDA (2013), *Food and Agriculture Policy Report in Mali*, FAO, Rome.

FAPDA (2013), *Food and Agriculture Policy Report in Uganda*, FAO, Rome.

FAPDA (2013), *Food and Agriculture Policy Report in the United Republic of Tanzania*, FAO, Rome.

FUGLIE, K.O., and RADA, N.E. (2013), *Resources, Policies, and Agricultural Productivity in Sub-Saharan Africa,* ERR-145, U.S. Department of Agriculture, Economic Research Service.

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

MAFAP (2013), *Review of food and agricultural policies in Burkina Faso,* MAFAP Country Report Series, FAO, Rome, Italy.

MAFAP (2013), *Review of food and agricultural policies in Kenya*, MAFAP Country Report Series, FAO, Rome, Italy.

MAFAP (2013), *Review of food and agricultural policies in Mali*, MAFAP Country Report Series, FAO, Rome, Italy.

MAFAP (2013), *Review of food and agricultural policies in Uganda*, MAFAP Country Report Series, FAO, Rome, Italy.

MAFAP (2013), *Review of food and agricultural policies in the United Republic of Tanzania*, MAFAP Country Report Series, FAO, Rome, Italy.

PLANNING AND STATISTICS UNIT OF THE RURAL DEVELOPMENT SECTOR (CPS-SDR) (2011), "Review of Public Expenditure in the Rural Sector for the National Programme for Investment in the Agricultural Sector (PNISA). Draft report". Report prepared by BAC+ for the Planning and Statistics Unit, Ministry of Agriculture, Mali.

SOFA (2012), *The State of Food and agriculture*, FAO, Rome, Italy.

WDI (2013), *World Bank World Development Indicators Database*, http://data.worldbank.org/data-catalog/world-development-indicators.

Appendices

Appendix 1 Summary of strategic frameworks from 2005 to 2008 in Burkina Fast, Kenya, Mali, Tanzania, and Uganda

	Policy Orientation	Policy Reference Documents	Objectives
Burkina Faso	Mandate to coordinate and implement NEPAD work through the ECOWAS in 2002 Adoption of the CAADP in Maputo, 2003 Policy reorientation breaking with SAPs in order to reintroduce State intervention in certain areas of the economy and the agricultural sector (input subsidies), in accordance with NEPAD objectives	Strategic Framework for the Fight Against Poverty (SFFAP) in 2003	Contribute to the agricultural sector by: • Creating an economic climate more favorable to private investment; • Developing SMEs in the rural sphere and in the pockets of the poor; • Creating a biophysical environment favorable to rapid growth
Kenya	Engagement in reform and policy consolidation since the end of the 1990s and the early 2000s, with a participatory approach	Economic Recovery Strategy for Wealth and Employment Creation (ERS, 2003-2007)	The objectives of this strategy fall within those of the MDG and the CAADP with an emphasis on macroeconomic stability, reinforcement of governance institutions, increased physical infrastructure, and investment in human capital
Mali	Mandate to coordinate and implement NEPAD work through the ECOWAS in 2002 Adoption of the CAADP in Maputo, 2003 Break with liberalization and reformulation of policy frameworks with an emphasis on participation of direct actors (producers) at the center of the process	Strategic Framework for the Fight Against Poverty (SFFAP, 2002) Strategic Framework for Growth and Poverty Reduction (SFGPR, 2007-2011)	Promote an annual growth rate of 7 percent and reduce poverty Accelerate progress towards achieving the MDG
Tanzania	Orientation of objectives in the long term and towards State intervention in key sectors of economic growth with an emphasis on the role of the private sector	Tanzania Development Vision 2025 (TDV) since the late 1990s and early 2000s	Better quality of life, good governance, economic growth A modernized, commercial, productive, and profitable agricultural sector
Uganda		Poverty Eradication Action Plan (PEAP) launched in 1997 Poverty Reduction Strategy Paper (PRSP) in 2001	Increase the income and the quality of life of poor populations

Appendix 2 Summary of strategic frameworks from 2008 to 2010 in Burkina Fast, Kenya, Mali, Tanzania, and Uganda

	Policy Orientation	Policy Reference Documents	Objectives
Burkina Faso	Emergency intervention to cope with the food crisis Policy reorientation focused mainly on economic growth and achievement of the MDGs	Strategy of Accelerated Growth and Sustainable Development (SAGSD 2011-2015)	Achieve strong (10% per year), supported, and quality growth that generates multiplier effects in terms of revenue improvement, quality of life of the population, and that respects the principles of sustainable development, which will facilitate achievement of the MDG and reduce poverty by at least 35% by 2015
Kenya	Long term vision of economic policy, in a spirit of continuity with previously developed policies	Kenya Vision 2030 developed beginning in June 2008	Transform Kenya into an "industrialized middle-income country that provides an elevated quality of life to all its citizens in a healthy and secure environment", using the agricultural sector as a key tool to achieving that goal
Mali	Pursuit of objectives defined within the strategic framework and policies of the post-liberalization period, and a particular emphasis on emergency intervention, on the one hand, and State investment spending to the benefit of agricultural actors	Strategic Framework for Growth and Poverty Reduction (SFGPR, 2012-2017)	In addition to pursuing the objectives defined in the post-liberalization period (MDG) the main goals of this period are: • To increase food security • To offer better revenues to producers • To improve balance of trade by increasing exports • To diversify export crops
Tanzania	Pursuit of the Tanzania Development Vision 2025 (TDV) with a particular emphasis on the agricultural sector and public-private partnerships	*Kilimo Kwanza* agricultural sector investment plan, 2009 Tanzania Agriculture and Food Security Investment Plan (TAFSIP), 2011	To achieve a green revolution and promote private sector participation in agriculture, in addition to the objectives defined by the CAADP
Uganda	Period distinguished by investments with a particular emphasis on priority investment sectors	National Development Plan (NDP) for the period 2010-2015	To respond effectively to the constraints encountered in the agricultural sector

Appendix 3 Summary of operational frameworks from 2005 to 2008 in Burkina Fast, Kenya, Mali, Tanzania, and Uganda

Burkina Faso	*The agricultural component of the SFFAP is the **Rural Development Strategy (RDS)** developed in 2003, which aims at sustainable growth in the agricultural sector.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Increase agricultural, pastoral, and forestry production by 3 to 15% according to product by 2010	Reinforce the production-market relationship	Natural resource protection and management	Support the organizational and professional capacity of actors	Secure the food conditions of populations
	Hydro-agricultural constructions	Market access for pastoral zones	Increase the number of water retaining structures	Support for professionalization and the private sector	Sustainably increase the national level of food production
	Promote high-growth sectors	Infrastructure for bringing products to market	Reduce the surfaces that are burned by forest fires	Support for the private exercise of veterinary and zootechnical professions	Improve the population's access to food products
	Develop agricultural mechanization through the Agricultural Mechanization Action Plan (PAMA in French)	Promote processing of products	Improve faunistic and forestry knowledge	Reinforce technical and operational capacities of State structures and their subdivisions	Sustainably improve the economic and nutrition conditions of poor populations and vulnerable groups
	Improve access to credit	Implementation of an effective MIS (SIM/SONAGESS – National Society for Food Security Stock Management)	Conserve the biodiversity of various ecosystems	Reinforce the capacities of professional organizations	Reinforce measures for short-term crisis prevention and management together with development of structural food security
	Develop traditional animal husbandry and enhancement of pastoral zones	Develop communication infrastructure	Improve land tenure through the drafting and application of documents	Structuring and institutional reinforcement of professional organizations	
	Develop small town aviculture	Improve productivity of export products	Soil fertility management	Creation of an institutional framework favorable to activities related to the rural sector	
	Improve animal health	Install industrial or semi-industrial food processing units			
	Improve animal productivity	Develop commercial production according to comparative advantages			
	Support pastoral feed and water	Favor intervention of the formal private sector and producers' and livestock			

		farmers' organizations			
	Support the milk sector	Develop agro-industrial processing and promote sales			
	Develop and reinforce the wood energy sector				
	Enhance NWFP				
	Increase the number of wild animals				
	Increase wild fish production				
	Promote aquaculture and diversify halieutic production				
Kenya	*The ERS was operationalized in the agricultural domain through the **Strategy for Revitalizing Agriculture (SRA, 2004-2014)** that aims to transform Kenyan agriculture into a profitable economic activity, capable of attracting private investment and creating jobs, with the ultimate goal of ensuring food security.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Increase agricultural production and productivity	***Improve access to domestic and external markets***		***Reform extension services***	***Ensure food security***
	Increase and improve access to agricultural inputs and financial services	Rationalize taxes in the agricultural sector			Formulate environmental and nutrition policy programs
	Promote agricultural mechanization	Develop public-private partnerships			
	Improve agricultural infrastructure	Promote domestic processing of agricultural products			
	Implement and develop trade-oriented agriculture				
	Improve dissemination of research results, extension, and support-assistance services				
	Promote research and development technologies				
Mali	*The operationalization of the strategic frameworks defined during this period, in line with the MDG and the CAADP objectives, necessitated multiple medium-term programs, including the **Master Plan for Rural Development** (**SDDR** in French) adopted in 1992 and renewed in 2000, and the **Agricultural Orientation Law** (**LOA** in French) developed in 2006 following the SDDR and in accordance with the agricultural policy common to the ECOWA and the NEPAD CAADP.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Increase agricultural production	***Relaunch the export of agro-sylvo-pastoral products***	***Rational management program for natural resources***	***Program of Support to Agricultural Services and Farmers' Organizations (PASAOP in French)***	***Food security reinforcement program***

	Construction development in zones with high hydro-agricultural potential	Regular offer of exportable products	Rational planning and management of territories	Support for agricultural divisions and professional agricultural organizations	Improved and diversified foodstuffs
	Increase individual and collective equipment of populations and territorial collectives	Improve the quality and competitiveness of agricultural export products	Improved knowledge of natural resources	Support for the national agricultural research system	Provisions to cover the food and nutrition needs of the population
	Market access for production zones		Improved natural resource management	Support for extension and agricultural training	Improved preservation and processing of foodstuffs
	Enhance various sectors and improve their competitiveness			Reinforce technical and financial capacity of private operators	
	Research into new prospects and market development				
	Improve the quality of products				
	Development and extension of high-yield techniques and technologies				
	Reinforce plant and animal protection				
	Develop agricultural research				
	Produce and disseminate improved gasoline and seeds				
	Develop agricultural savings and credit				
	Investment finance for the rural sector				
	*The **Agriculture Orientation Law** developed in 2006, targets Mali's transition to sustainable, diversified, modern, and competitive subsistence agriculture by placing farmers at the center of the process.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Modernization of family agriculture and development of agro-industry	***Production of export products and penetration of foreign markets***	***Environmental protection and sustainable management of natural resources***	***Structure the agricultural profession***	***Food sovereignty of the country***
	Increased agricultural production and productivity	Protect farm-workers and agricultural production from practices contrary to national, regional, and international market rules			Improved revenues for producers
	Protecting agricultural farm-workers from agricultural risks	Social protection of farm-workers and agricultural personnel			
Tanzania	*The Tanzania Development Vision 2025 (TDV) required the implementation of medium-term programs such as the National Strategy for Growth and Reduction of Poverty (MKUKUTA I and II, 2005-2014) with their agricultural component: **Agricultural Sector Development Strategy (ASDS)** drafted in 2001, together with a **sectoral investment plan (ASDP)** launched in 2006, which aimed at increasing the productivity and profitability of agricultural revenues.*				

	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Create an environment favorable to improving productivity and profitability in the agricultural sector	***Create an environment favorable to commercial activities***		***Promotion of agricultural services (training, research, and technical assistance)***	***Increase agricultural household revenues in order to reduce rural poverty and ensure household food security***
	Facilitate producers' access to infrastructure, knowledge of agricultural technology, and commercial systems	Develop the private sector Develop agricultural markets and financing			
	Promote private sector investment in agriculture				
	Public investment				
Uganda	*Operationalization of the PEAP, 1997, and the PRSP, 2001, in the agricultural sector consisted the drafting of the **Plan for the Modernization of Agriculture (PMA)** in 2000 and the **Rural Development Strategy (RDS)** in 2005: to increase the productivity of production; to increase production of selected speculations; to favor added value creation and ensure a stable market for selected products.*				
	*The **Plan for the Modernization of Agriculture (PMA)** was developed in 2001 in order to implement the 2nd pillar of the Poverty Eradication Action Plan (PEAP). It aims to improve the livelihoods of agricultural households.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	National Agricultural Advisory Services (NAADS)	***Markets and Agricultural Trade Improvement Project (MATIP)***	***Sustainable use and management of natural resources***		
	Improve community agricultural infrastructure	Support relationships between agribusiness services and the market			
	Agricultural Technology and Agribusiness Advisory Services (ATAAS)				
	Develop agricultural technologies				
	Enhance the partnerships between agricultural research, advisory services, and others				
	*The **Rural Development Strategy (RDS)** was drafted in 2005 in accordance with the PMA in order to facilitate intense agricultural productivity.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Increase agricultural production of selected products			***Support for farmers' associations, groups, and cooperatives***	
	Enhance rural microfinance	Put an information system in place			
	Improve market access through an active relationship between groups of producers, processors, and buyers	Facilitate access to credit for processors			

	Facilitate provision of agricultural inputs through market mechanisms	Support research and development of agro-industry prototypes			
	Increase agricultural productivity	Establish appropriate relationships between producers and processors			
	Improve access to microfinance (savings and credit)	Put in place community information systems			
	Subsidies for cotton				
	Improved access to water (irrigation) for production				

Appendix 4 Summary of operational frameworks from 2008 to 2010 in Burkina Fast, Kenya, Mali, Tanzania, and Uganda

Burkina Faso	*The tool for operationalizing the SAGSD in the rural and agricultural sector is the **National Program for the Rural Sector (NPRS)**, which, together with NEPAD agricultural policies (CAADP), aims to contribute in a sustainable manner to food and nutrition security, strong economic growth, and the reduction of poverty by 2025.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Improve food security and sovereignty	***Improve conditions under which agricultural products are brought to market***	***Sustainably develop and manage natural resources***	***Support, advise, and provide extension programs for producers***	***Improve the revenues of rural populations***
	Increase and diversify agricultural production	Improve access to market information for agricultural products	Sustainably manage water and soil, and ensure land tenure in the rural sphere	Reinforce producers' organizations	Effectively prevent and manage food crises
	Promote producers' access to inputs and agricultural equipment	Develop infrastructure for storage and for bringing agricultural products to market	Sustainably manage and protect pastoral resources		Improve access to potable water and living environments
	Protect plants	Reinforce the capacities of agricultural product processing companies	Improve forestry, faunistic, and halieutic production		
	Promote research and development for plant and animal production	Promote access to technology and to processing and commercialization services	Adapt to the negative impacts of climate change on agro-sylvo-pastoral activities and attenuate greenhouse gasses		
	Increase productivity in terms of weight of animal production		Promote good practices for sustainable management of land		
	Increase production of milk and milk products				
	Increase meat exports				
	Prevent, contain, and eradicate animal diseases				
	Increase surfaces within the reach of water by ensuring availability of surface water and groundwater				
	Promote the production-market relationship				

Kenya	*This vision for the agricultural sector is operationalized through the **Agricultural Sector Development Strategy (ASDS)**, which covers the 2010-2020 period and aims to transform Kenyan agriculture into a new agriculture that offers business opportunities and provides food security for all. The ASDS was drafted according to the objectives outlined in the CAADP.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Agricultural research and extension	***Climate favorable to agribusiness***	***Sustainable management of land and natural resources***	***Legal, regulatory, and institutional reforms***	***Food and nutrition security***
	Provision of inputs and financial services	Improved market access			
		Environment favorable to the creation of value added			
Mali	*The strategic framework of the LOA in this post-food crisis period is the **Agricultural Development Policy** (**PDA** in French) provided for the 2011-2020 period and the subject of the 1st article of the LOA. It is enacted through the **National Program of Investments in the Agricultural Sector** (**PNISA** in French), which is the operational tool for reaching the objectives for the agricultural sphere set by the SFGPR, in line with the CAADP objectives.*				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Increase plant, animal, and halieutic production	***Improve rural infrastructure and commercial capacities to facilitate market access***			***Improve producers' revenues***
	Intensify and modernize production systems	Intensify and modernize commercialization systems			Better economic enhancement of surplus production
	Increase animal production				Improved nutritional status through IEC[23] actions
	Structure and intensify pastoral and aquatic production systems				Increase food provisions
	Sustainably develop cultivated surfaces serviced by reliable water systems				Reduce hunger
	Improve agricultural research, and the dissemination and adoption of technologies				Improve responses to food emergencies
	Diversify and make agricultural products competitive through the PACD and the PIAP[24]				
Tanzania	Over the course of this period, marked by the Kilimo Kwanza operation launched in 2009, the Tanzania Agriculture and Food Security Investment Plan (TAFSIP) was put into place in 2011, according to				

[23] Information, Education, and Communication (IEC).

[24] Program for Agricultural Competitiveness and Diversification (PACD); Plan to Increase in Agricultural Productivity (PIAP in French).

	the CAADP objectives and following the Agricultural Sector Development Programme (ASDP) of the post-liberalization period.				
	Production	**Commercialization/Processing**	**Natural Resources/Environment**	**Capacities/Professional Organizations**	**Revenues/Food Security/ Social Welfare**
	Increase concessionary loans to the agricultural sector	***Create and facilitate the exchange of agricultural goods***	***Put laws into place regarding rural and urban land***	***Capacitate agricultural cooperatives.***	***Establish a social security agreement for producers***
	Modernization and commercialization of agriculture	Remove trade barriers for agricultural products	Distinguish land for agricultural purposes from land for pastoral purposes	Support professional producers' organizations and the reinforcement of their capacities	
	Public-private partnership in the use of technologies and agricultural knowledge	Reinforce regional integration with respect to trade	Allocate land resources appropriately according to need for different activities	Train producers regarding storage and management of agricultural products	
	Public-private partnership in the construction of agricultural infrastructure	Public-private partnerships to improve market access	Provide resources for the management of conflicts related to land resources		
	Creation of the Tanzania Agricultural Sector Development Bank	Facilitate the financing of agricultural enterprises in exchange operations			
	Creation of the Tanzania Investment Bank	Reduce the cost of improved competitiveness to agricultural entrepreneurs			
	Spread community banks in each region of Tanzania to facilitate access to credit	Dedicate more resources to the National Food Reserve Agency (NFRA) in order to regulate prices			
	Establish policy instruments to facilitate coverage of agricultural risks by insurance companies	Broaden the NFRA's capacity in order to accumulate greater food stocks			
	Establish agreements regarding the production of strategic agricultural goods	Encourage increased participation of the private sector in the purchase and storage of food goods			
	Produce agricultural goods that are easily processed, require little in the way of technology and financing, and for which there is national demand and increasing international demand	Maintain a stock of food goods that could cover a period of 6 to 12 months in order to ensure stable market conditions			
	Produce goods that require little investment and for which international demand is potentially high	Regulate the cross-border trade of food products			
	Promote the agro-industrial transformation				

<table>
<tr><td></td><td colspan="5">Corollary to the Kilimo Kwanza, the Southern Agricultural Growth Corridor of Tanzania (SGACOT) initiated in 2010 as a public-private partnership, also seeks to promote investment in agricultural activities.</td></tr>
<tr><td rowspan="8">Uganda</td><td colspan="5">Operationalization of the NDP in the agricultural domain consists of drafting the 2nd Agricultural Sector Development Strategy and Investment Plan (ASDSIP) for the 2010/11-2014/15 period, with a particular emphasis on the promotion of private investment, according to CAADP objectives.</td></tr>
<tr><td>Production</td><td>Commercialization/Processing</td><td>Natural Resources/Environment</td><td>Capacities/Professional Organizations</td><td>Revenues/Food Security/ Social Welfare</td></tr>
<tr><td>Improve agricultural production and productivity</td><td>Improve access to and sustainability of agricultural markets</td><td>Create a favorable environment</td><td>Reinforce the capacity of professional organizations with respect to management and entrepreneurship</td><td></td></tr>
<tr><td>Promote and extend agricultural research</td><td>Extend the networks of rural market infrastructure</td><td>Promote sustainable use and management of natural resources</td><td></td><td></td></tr>
<tr><td>Improve producers’ access to information, knowledge, and the use of technologies</td><td>Increase private sector participation in investment and activities that create value added</td><td>Improve public education and communication regarding natural resources</td><td></td><td></td></tr>
<tr><td>Reduce agricultural losses</td><td>Better access for producers to quality inputs and storage materials</td><td></td><td></td><td></td></tr>
<tr><td>Make water resources available for irrigation, animal husbandry, and fisheries</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Accelerate production modes through specialization of zones</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Create an environment that allows for investment in agriculture</td><td></td><td></td><td></td><td></td></tr>
</table>

Appendix 5 FAO food security definitions

The following definitions have been extracted from the FAO Policy Brief on Food Security, 2006.

"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life".

Food availability: The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).

Food access: Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economic and social arrangements of the community in which they live (including traditional rights such as access to common resources).

Utilization: Utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well being where all physiological needs are met. This brings out the importance of non-food inputs in food security.

Stability: To be food secure, a population, household or individual must have access to adequate food at all times. They should not risk losing access to food as a consequence of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food insecurity). The concept of stability can therefore refer to both the availability and access dimensions of food security.

Appendix 6 Portion of public spending in relation to agricultural land and workers in 5 African countries, 2005 and 2006.

	MALI	BURKINA FASO	KENYA	TANZANIA	UGANDA
Public Spending, US$ (2006-2010)	182,246,979	251,099,063	500,627,567	510,686,014	420,058,649
Agricultural land (ha)	40,709,200	11,542,000	27,250,800	36,496,880	13,742,000
PS/Agricultural land	448	2,176	1,837	1,399	3,057
Agricultural workers (% of the active population)	66	85	61	77	72
Agricultural workers	2,465,779	5,455,125	8,087,210	15,180,315	8,198,811
PS/Agricultural workers	74	46	62	34	51

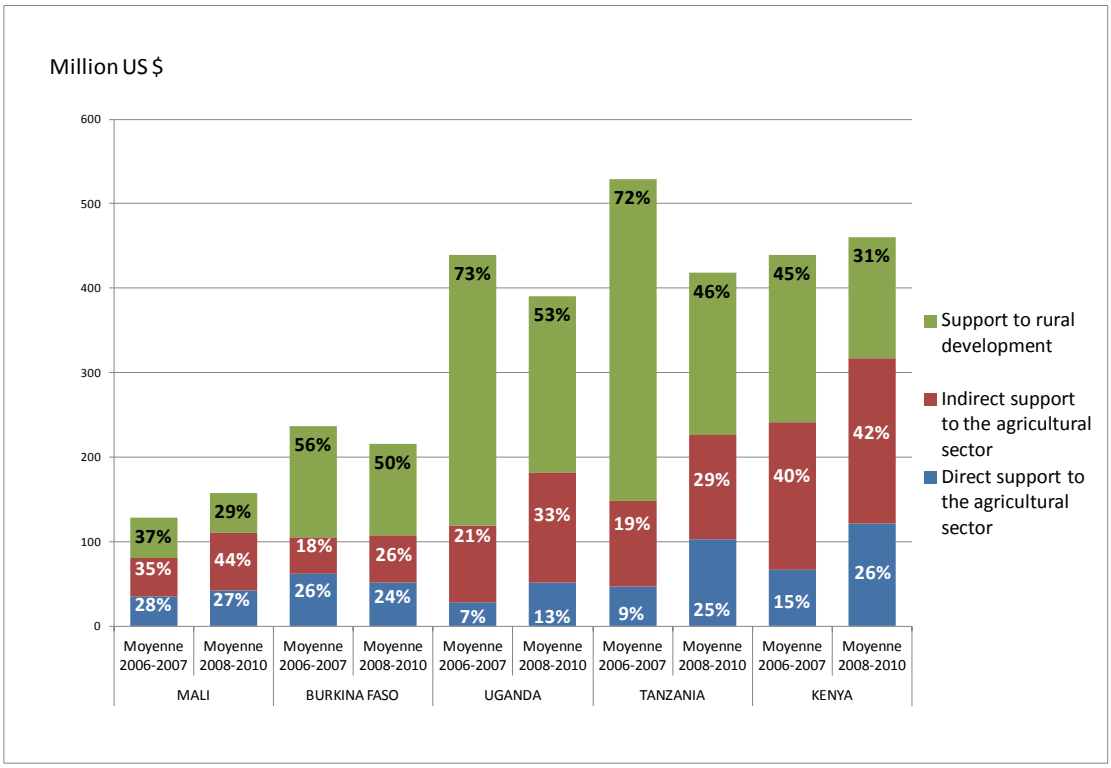
Source: World Bank, 2013

Appendix 7 Consumption price index for 5 African countries, 2006-2010.

	2006	2007	2008	2009	2010
MALI	101.5	103	112.4	114.9	116.2
BURKINA FASO	102.3	102.1	113	115.9	115
KENYA	114.5	125.6	158.6	173.2	180.1
TANZANIA	107.3	114.8	126.6	142	150.8
UGANDA	107.3	113.9	127.6	144.2	150

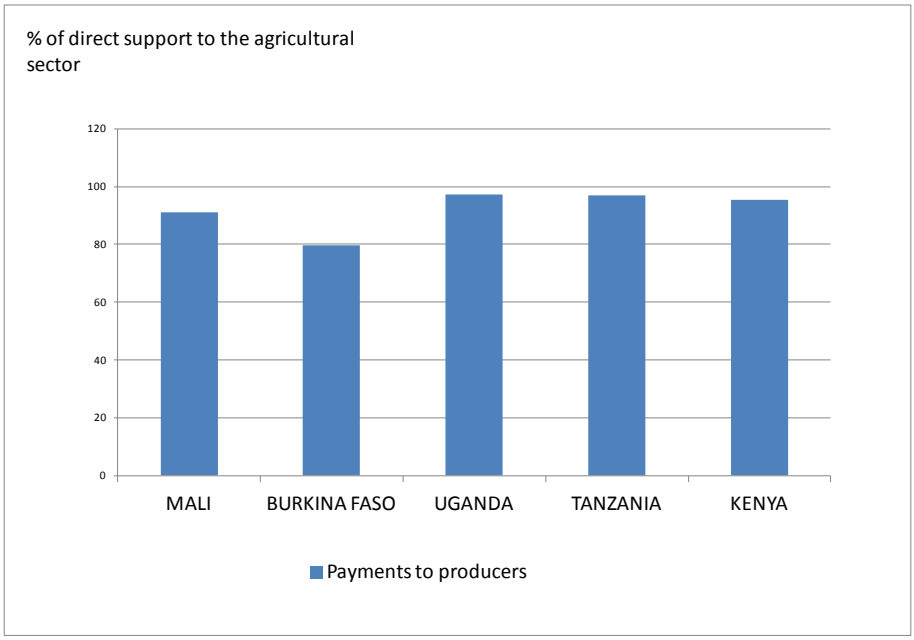
Source: http://data.worldbank.org/data-catalog/world-development-indicators

Appendix 8 Direct spending, indirect spending, and spending in favor of agricultural development, in absolute terms, for 5 African countries, averages for 2006-2007 and 2008-2010.



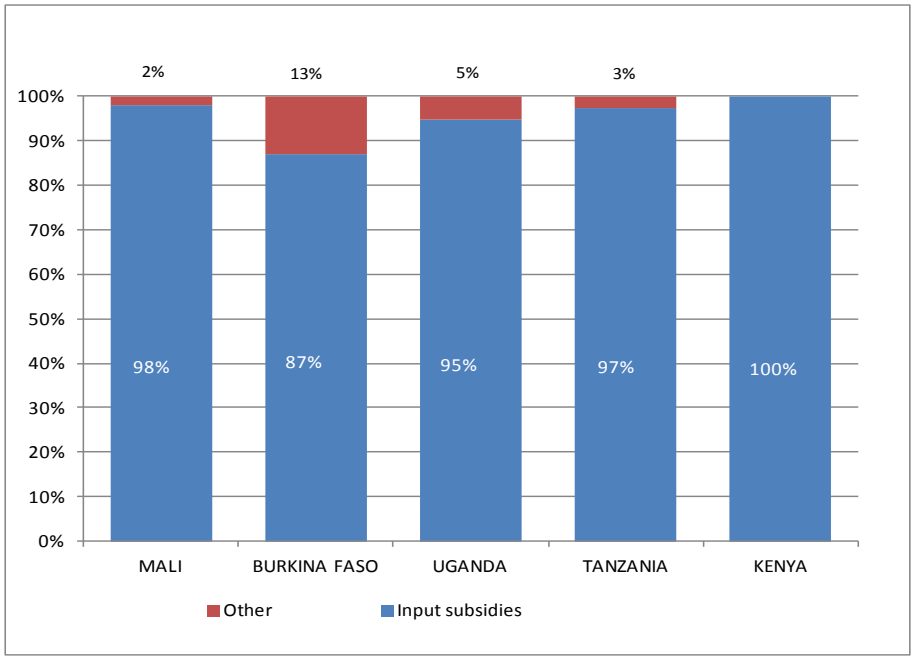
Source: own calculations based on budgetary data collected by MAFAP

Appendix 9 Composition of direct support to the agricultural sector in 5 African countries, averages for 2006-2010.



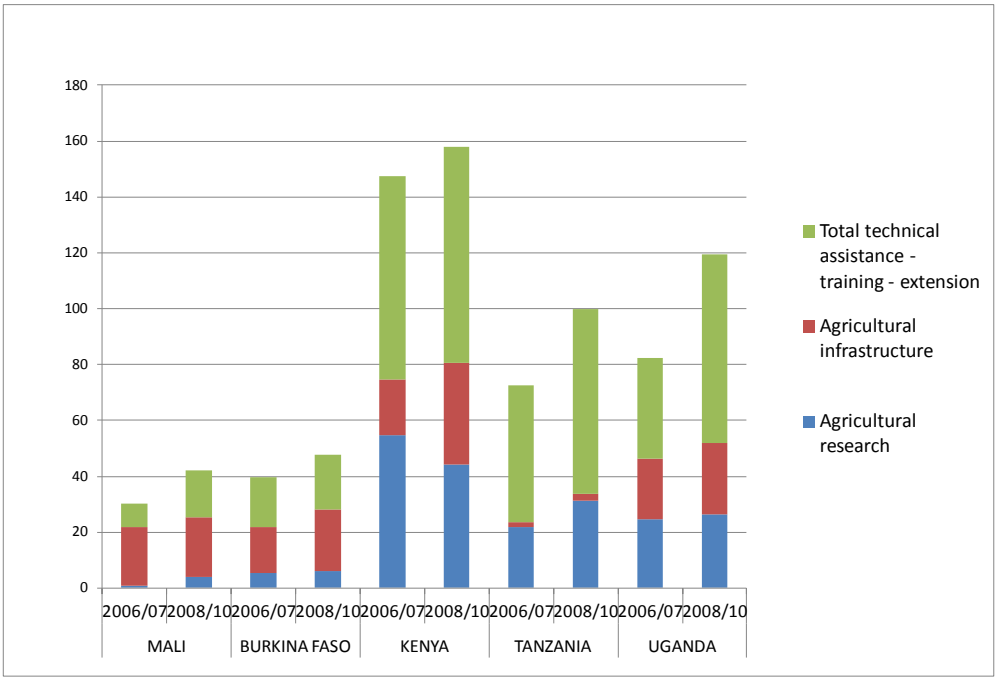
Source: own calculations based on budgetary data collected by MAFAP

Appendix 10 Composition of payments to producers for 5 African countries, averages for 2006-2010.



Source: own calculations based on budgetary data collected by MAFAP

Appendix 11 Composition of indirect spending on the agricultural sector in absolute terms for 5 African countries, averages for 2006-2007 and 2008-2010



Source: own calculations based on budgetary data collected by MAFAP

Appendix 12 Expenditures on agricultural research, technical assistance, training, and extension in five African countries, averages for 2006-2007 and 2008-2010 (expressed in billions of LCU).

	MALI		BURKINA FASO		UGANDA		TANZANIA		KENYA	
	2006/07	2008/10	2006/07	2008/10	2006/07	2008/10	2006/07	2008/10	2006/07	2008/10
Agricultural research	0.4	2.3	2.8	3.5	46.7	64.6	28.7	50.7	4.2	4.7
Technical assistance	0.4	2.6	0.6	0.6	0.6	3.1	0.0	0.0	0.2	0.6
Training	3.6	6.5	7.8	9.1	39.5	51.6	44.3	89.5	1.5	2.4
Extension services	0.4	1.0	0.8	1.9	28.0	109.3	19.7	20.6	3.8	5.4
Agricultural research/extension services	0.9	2.3	3.6	1.9	1.7	0.6	1.5	2.5	1.1	0.9
Agricultural research (total tech. assist/training/extension services)	0.1	0.2	0.3	0.3	0.7	0.4	0.4	0.5	0.8	0.6

Source: own calculations based on budgetary data collected by MAFAP

Appendix 13 World Development Indicators data for five African countries, averages for 2006-2010.

GDP current US$	2006	2007	2008	2009	2010
Mali	5866095675	7146284975	8738080883	8964687644	9422377319
Burkina Faso	5844670800	6755806772	8350621916	8348161530	8825364008
Kenya	22504136042	27236739896	30465489796	30580367979	32198151217
Uganda	9977209199	11916019463	14440830267	15803499657	17197398887
Tanzania	14331231239	16825547176	20715086119	21368165400	22915004297

GDP growth (annual %)	2006	2007	2008	2009	2010
Mali	5.3	4.3	5	4.5	5.8
Burkina Faso	6.767809454	3.606206563	5.800005065	2.965439145	7.886165764
Kenya	6.330632808	6.993285153	1.526948818	2.735212509	5.764902975
Uganda	10.78474439	8.412425966	8.708856704	7.247451504	5.9
Tanzania	6.737388165	7.148095587	7.436819664	6.021952116	7.043072344

Population, total	2006	2007	2008	2009	2010
Mali	13592796	14020786	14459990	14909813	15369809
Burkina Faso	14622202	15061127	15515258	15984479	16468714
Kenya	36540948	37485246	38455418	39462188	40512682
Uganda	29370251	30339895	31339392	32367909	33424683
Tanzania	39923609	41068185	42267667	43524738	44841226

Surface area (sq. km)	2006	2007	2008	2009	2010
Mali	1240190	1240190	1240190	1240190	1240190
Burkina Faso	274220	274220	274220	274220	274220
Kenya	580370	580370	580370	580370	580370
Uganda	241550	241550	241550	241550	241550
Tanzania	947300	947300	947300	947300	947300

Source : *http://data.worldbank.org/data-catalog/world-development-indicators*

Commentary: As these tables indicate, both the populations and GDPs of Mali and Burkina Faso are quite similar, though Mali is nearly five times as big as Burkina Faso in terms of territory. In West Africa, the population of Uganda is nearly twice that of Burkina Faso, and Kenya's population is 25 percent higher than that of Uganda. Tanzania's population is approximately 35 percent larger that that of Uganda. In terms of GDP, Uganda's is equal to Kenya's, and to 70 percent of Tanzania's GDP. The GDP of Burkina Faso is approximately 50 percent of Uganda's.

Appendix 14 Comparison of annual growth rates of agricultural value added and GDP in five African countries, averages for 2006-2010.

Country	Indicator Name	2006	2007	2008	2009	2010	Variance
Burkina Faso	Agriculture, value added (annual % growth)	3.2	-19.3	32.1	-11.3	15.8	427.7
	GDP growth (annual %)	6.8	3.6	5.8	3.0	7.9	4.3
	Agr value growth/gdp growth	0.5	-5.4	5.5	-3.8	2.0	
	Agr growth > GDP growth			x		x	
	Agr growth<GDP growth	x	x		x		
Mali	Agriculture, value added (annual % growth)	0.8	13.9	18.2	8.4	10.7	42.5
	GDP growth (annual %)	5.3	4.3	5.0	4.5	5.8	0.4
	Agr value growth/gdp growth	0.1	3.2	3.6	1.9	1.8	
	Agr growth > GDP growth		x	x	x	x	
	Agr growth<GDP growth	x					
Tanzania	Agriculture, value added (annual % growth)	3.9	4.0	4.6	3.2	4.1	0.2
	GDP growth (annual %)	6.7	7.1	7.4	6.0	7.0	0.3
	Agr value growth/gdp growth	0.6	0.6	0.6	0.5	0.6	
	Agr growth > GDP growth						
	Agr growth<GDP growth	x	x	x	x	x	
Uganda	Agriculture, value added (annual % growth)	0.5	0.1	1.3	3.5	0.3	1.9
	GDP growth (annual %)	10.8	8.4	8.7	7.2	5.9	3.3
	Agr value growth/gdp growth	0.0	0.0	0.2	0.5	0.1	
	Agr growth > GDP growth						
	Agr growth<GDP growth	x	x	x	x	x	
Kenya	Agriculture, value added (annual % growth)	4.5	2.3	-4.3	-2.5	6.3	20.4
	GDP growth (annual %)	6.3	7.0	1.5	2.7	5.8	5.7
	Agr value growth/gdp growth	0.7	0.3	-2.8	-0.9	1.1	
	Agr growth > GDP growth					x	
	Agr growth<GDP growth	x	x	x	x		

Source: For Mali, data were obtained from the Rural Economy Institute (IER). For Burkina Faso, the growth rates of agricultural value added were obtained by own calculations based on FAOSTAT data. For other figures, the WDI database was used: http://data.worldbank.org/data-catalog/world-development-indicators. The ratios were computed manually.

FOOD AND AGRICULTURE
ORGANIZATION OF
THE UNITED NATIONS

MAFAP
SPAAA

supported by the *Bill and Melinda Gates Foundation*