



Food and Agriculture Organization  
of the United Nations

# INITIATIVES FOR THE MONITORING AND ANALYSIS OF AGRICULTURAL PUBLIC EXPENDITURE IN AFRICA

A comparative  
review and  
analysis

Monitoring and Analysing Food and Agricultural Policies (MAFAP)

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# INITIATIVES FOR AGRICULTURAL PUBLIC EXPENDITURES MONITORING AND ANALYSIS IN AFRICA

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# Acronyms

AgPER	Agriculture Public Expenditure Review
ASTI	Agricultural Science and Technology Indicators
AU	African Union
BECEAO	Central Bank of West African States
CAADP	Comprehensive Africa Agriculture Development Programme
CNA	Country Needs Assessment
COFOG	Classification of the Functions of Government
CRS	Creditor Reporting System
DAC	Development Assistance Committee
DEPSI	Directorate of Project Evaluation and Investment Monitoring, Burkina Faso
DFID	Department for International Development, United Kingdom
DGB	General Directorate of the Budget, Burkina Faso
DGCOOP	General Directorate of Cooperation, Burkina Faso
FAO	Food and Agriculture Organization of the United Nations
GEA	Government Expenditure on Agriculture
GFS	Government Finance Statistics
IDS	International Development Statistics Database
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
INERA	National Institute of Agricultural Research, Burkina Faso
IWMI	International Water Management Institute
MAFAP	Monitoring and Analysing Food and Agricultural Policies
NEPAD	New Economic Partnership for Africa's Development
NPCA	NEPAD Planning and Coordination Agency
ODA	Official Development Assistance
ODI	Overseas Development Institute
OECD	Organisation for Economic Cooperation and Development
PEA	Public Expenditures in support of Agriculture
PEPPAG	Public Expenditures for Pro-Poor Agricultural Growth
PSE	Producer Support Estimate
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
SAKSS	Strategic Analysis and Knowledge Support System
SNCAPE	Strengthening National Comprehensive Agricultural Public Expenditure in Sub-Saharan Africa
SPEED	Statistics of Public Expenditure for Economic Development
USD	United States Dollar



# Key messages

Based on this extensive review, the authors convey the following messages:

- Given the diversity of needs for PEA monitoring and analysis, it is acceptable and desirable that different initiatives complement each other in the field of PEA monitoring and analysis, and that they use tools (namely approaches, processes and methodologies) adapted to each need. The higher the quality of the analyses and databases delivered by initiatives, the more easily complementarities can be identified and valued.
- It is recommended that the ongoing discussion on “how to measure public expenditure for agriculture” focus not only on the definition of “the agriculture sector”, but also on the approaches and processes adopted to measure PEA.
- Much of the debate on PEA monitoring and analysis initiatives in Africa has been centred on methodological issues, especially the definition of the agriculture sector to be used in the computation of the 10 per cent Maputo/Malabo allocation ratio.
- However, it is argued that African policy-makers’ needs in terms of PEA monitoring and analysis go beyond measurement of the Maputo/Malabo target. Such needs include capacity development at the country level, in-depth evaluation of public financial management systems, and monitoring and analysis of the breakdown of PEA towards specific agricultural sub-sectors (research, for instance) and commodities.
- Initiatives responding to similar needs should ensure they maximize synergies, for instance by using commonly adopted standards whenever possible.
- African policy-makers and analysts need transparent and clear information on the specific objectives and methodologies of existing PEA monitoring and analysis initiatives. This knowledge should permit policy analysts and makers to use the available initiatives in the most efficient, effective and sustainable way to help achieve their development objectives.



# Executive summary

The present document reviews and assesses the recent and ongoing initiatives dedicated to monitoring and analysing Public Expenditure in support of Agriculture (PEA) in Africa.<sup>1</sup> This document fills a gap and responds to the need of policy-makers and policy analysts in Africa for a detailed and analytical review of what exists in terms of PEA monitoring and analysis in Africa. The objective of the present review is thus to: (i) shed light on PEA monitoring and analysis initiatives in Africa: not only their method and definition of agriculture, but also their nature, objectives, scope, current status, and most importantly their relevance for African policy-makers and policy analysts; and (ii) inform policy-makers and development stakeholders on the various tools that exist to monitor and analyse PEA in Africa.

The key points of the document are summarized below:

- PEA monitoring and analysis initiatives interact in three fields, or “fora”: (i) holding African States to the commitments they have made, especially with regards to the Maputo target and the recent Malabo Declaration, with which signatories agreed to allocate 10 percent of total public expenditures to the agriculture sector; (ii) improving aid effectiveness of agriculture sector funding; and (iii) supporting and promoting evidenced-based policy-making.
- Within this context, eight data- and evidenced-based initiatives are currently being implemented: ReSAKSS, SPEED, ASTI, the World Bank’s AgPERs, BOOST, the IDS/CRS database, FAO’s GEA database, and FAO’s MAFAP. Among these initiatives, SPEED, BOOST, IDS/CRS and GEA are data-focused.
- Although they interact within the same fora, these initiatives differ to varying extents in terms of nature, objective(s), scope and method. It is therefore not advisable to compare them as if they were “like to like”. These initiatives should rather be understood as different tools responding to specific but complementary needs at the country and regional levels.
- The African Union, in its Guidance Note of 2005 (AU/NEPAD, 2005) and in the draft version of the

Guidance Note of 2014,<sup>2</sup> recommends using the COFOG accounting system, designed by the OECD and the UN, to define the “agriculture sector”. However, many African States do not use the COFOG accounting system, forcing analysts to undertake a difficult matching and reconciling exercise. Also, COFOG categories are not sufficiently disaggregated to effectively serve the purposes of in-depth PEA composition analysis, and certain initiatives have thus used alternative systems.

- PEA monitoring and analysis is a major part of the ReSAKSS mandate. A key task of ReSAKSS is to track the Maputo expenditure target. ReSAKSS collects time-series of indicators from secondary sources on the aggregate level of PEA for a large number of African countries. It also publishes a series of PEA analyses. Because ReSAKSS indicators largely come from secondary sources, they do not follow a harmonized definition of what constitutes the agriculture sector. However, the ReSAKSS PEA does adopt the methodology recommended in the African Union Guidance Note as much as possible.
- The SPEED database, maintained by IFPRI, is the chief source of data for ReSAKSS indicators on the aggregate level of PEA in African countries. The SPEED database itself relies mostly on data from the IMF. SPEED focuses solely on data generation and management.
- ASTI is the leading initiative on the level and composition of public expenditure on agricultural research in African countries, although it also covers several non-African countries. Due to its specific focus, ASTI follows its own methodology, adapted from the OECD’s Frascati Manual. ASTI offers time-series of detailed indicators on agricultural research public expenditure, as well as a variety of analyses, briefs and reports, all focusing on agricultural research.
- The World Bank-supported Agriculture Public Expenditure Reviews (AgPERs) are freestanding analyses of the level and composition of PEA in a number

<sup>1</sup> This generic term is used by the authors to refer to public expenditures considered by the initiatives reviewed in the present document. It is acknowledged that each initiative, due to its specific nature, objectives, scope and method, may use different terminology to refer to PEA.

<sup>2</sup> The Guidance Note is currently being updated and is expected to be published in early 2015. The authors contributed to the revision process of the Guidance Note and used the draft version of the updated Guidance Note (AU/NEPAD, 2014) as an input for this document.

of African countries. Unlike ReSAKSS or SPEED, the AgPERs are not aimed at producing time-series of indicators. Rather, they analyse, in-depth, the technical and allocative efficiency of PEA in a given country, for a specified period. The specific scope and methodology differ from country to country in order to respond to each country's analytical and operational requirements, although analysts often try to follow the African Union Guidance Note and the World Bank Practitioners' Toolkit for Agriculture Public Expenditure as closely as possible. Of all the initiatives reviewed, AgPERs have the strongest focus on analysing the quality of PEA.

- The BOOST database, as regards PEA, covers a smaller number of African countries than the other initiatives. BOOST provides secondary, aggregated data on PEA for these countries. It has a well-designed Internet interface that facilitates the analysis of indicators.
- The International Development Statistics/Creditor Reporting System (IDS/CRS) database, curated by the OECD, is the authoritative source for donor expenditures on the agriculture sector. It focuses on aid data

collection and management, and uses its own methodology to define the agriculture sector. The IDS/CRS data is collected directly from OECD donor countries.

- The GEA database is an initiative developed by FAO's statistics division. It aims to provide indicators on the level of PEA in all African countries, defined to the level of three major subsectors (agriculture, forestry and fisheries). The data is collected through surveys sent to African governments and in collaboration with the IMF.
- MAFAP is an FAO initiative that focuses on establishing a system to monitor and analyse policies with a view to articulating suitable reforms in a growing number of countries, primarily in Africa. MAFAP focuses on price incentives and public expenditure analysis. MAFAP includes a significant PEA capacity building component, which consists mainly of training PEA analysts in African partner countries. In addition to this, MAFAP generates time-series of indicators on the level and composition of PEA, and produces PEA analyses based on those indicators.

# Introduction

## Context

While African policy-makers neglected the agriculture sector for a significant period between the 1970s and the 2000s, the sector subsequently regained their attention as a driving force for their countries' development (Jha, 1987; Olukoshi, 2005; Palaniswamy and Biner, 2006; Staatz and Dembelé, 2007; Kolavalli *et al.*, 2012; Benin, 2012). The striking stagnation of African countries' agriculture sectors, especially when compared with Asian countries, triggered policy responses from African governments (Anderson *et al.*, 2008). Responses included trade and market policy measures aimed at protecting domestic production (fixed prices, import tariffs, input and output subsidies), particularly following the 2007/2008 food price crisis. Governments also acknowledged the need to make increased and better use of budgetary tools to develop and transform their agriculture sectors.

In 2003, African Union Member States gathered in Maputo and committed to devoting 10 percent of their total public budgets to agriculture, in order to contribute to attaining another key policy target: a 6 percent annual growth rate for the agriculture sector. In Malabo, on 26 and 27 June 2014, Member States of the African Union resolved "to uphold our earlier (Maputo) commitment to allocate at least 10 percent of public expenditure to agriculture, and to ensure its efficiency and effectiveness" and "to sustain annual agricultural GDP growth of at least 6 percent per annum". The Malabo Declaration also recognized "the continued need to support Member States to effectively monitor the 10 percent target in agriculture budget allocation" (AU, 2014). Accordingly, the recent Malabo Declaration places an increased emphasis on enhancing the quality of PEA by each Member State and on gathering empirical evidence.

With minimal investment in the human capital of the Ministries of Agriculture for many decades, African countries found – and still find – themselves in a difficult position in terms of effectively monitoring and analysing their PEA as a key input to enhancing the allocation, implementation and impacts thereof. As such, several development institutions now provide PEA monitoring and analysis expertise and capacity development to African governments, with a variety of objectives:

tracking PEA against the 10 percent Maputo target, assessing the efficiency of public financial management systems, measuring aid, building capacity within countries, and/or compiling enhanced and disaggregated data on public expenditure for research purposes and evidence-based decision-making.

African policy-makers are therefore confronted with a wealth of PEA monitoring and analysis initiatives whose differences in nature, objectives, scope and methods are not always clear to all stakeholders and primary decision-makers in governments. Confusion and/or misunderstandings often arise among donors and other development stakeholders. Questions are frequently raised such as: What is the difference between one initiative and another? Why are there several methodologies for measuring PEA, and what does each one do? Which dataset is relevant to measuring PEA against the Maputo target? How can these initiatives be complementary? There is little, if any, literature aimed at policy-makers and policy analysts that comprehensively answers such questions for the African context.

The present report seeks to fill this gap by providing a detailed and analytical map of existing PEA monitoring and analysis initiatives in Africa. This is based on the experience and knowledge accumulated in the Food and Agriculture Organization of the United Nations (FAO) by the secretariat of the Monitoring and Analysing Food and Agricultural Policies (MAFAP) programme. MAFAP seeks to establish country-owned and sustainable systems to monitor, analyse and reform food and agricultural policies in order to enable more effective, efficient and inclusive policy frameworks in a growing number of developing and emerging economies. PEA monitoring and analysis has been an essential pillar of MAFAP's work since 2009, the year the programme was launched. MAFAP has collaborated with the OECD's Trade and Agriculture Directorate (TAD) in producing a PEA monitoring and analysis methodology and PEA analytical products. MAFAP is a contributor to the community of PEA monitoring and analysis practitioners in Africa. Policy analysts and policy-makers in MAFAP's African partner countries have expressed the need for transparent information on the characteristics of the various PEA monitoring and analysis initiatives that are



meant to support policy processes. The present report seeks to respond to that need.

This report draws on the existing body of work about PEA monitoring and analysis, including: Action Aid's assessment of the definition of the agriculture sector (2013); the International Food Policy Research Institute's "Review of Data and Analytical Initiatives on Agricultural Public Expenditures" (2013);<sup>3</sup> the World Bank "Practitioners' Toolkit for Public Expenditure Analysis" (2011); the Regional Strategic Analysis and Knowledge Support System (ReSAKSS) report "Complying with the Maputo Declaration Target: Trends in public agricultural expenditures and implications for pursuit of optimal allocation of public agricultural spending" (Benin and Yu, 2012); MAFAP's methodological guidelines for PEA analysis (2013); and the recently updated AU/NEPAD "Guidance Note on the Enhanced Measurement and Tracking of Government Expenditure for Agriculture and Its Quality in African Countries" (2014).<sup>4</sup> Several other valuable documents were used and are referenced in the bibliography.

## Objective

The objective of the present report is to provide a comprehensive and in-depth review of recent and current initiatives for PEA monitoring and analysis in Africa. The report is aimed primarily at African policy-makers and policy analysts, especially in the Ministries of Finance, Planning and Agriculture, seeking to better understand the specificity and relevance of each PEA initiative for the food and agriculture development of African countries. The report can also be of interest for other development stakeholders, including donors, civil society, regional economic communities, academia and the private sector.

## Approach

First, the report succinctly frames the context of PEA monitoring and analysis in Africa. It then reviews all initiatives considered of significant relevance to African PEA monitoring and analysis. The initiatives included in this document always comprise Africa as one of their geographic areas of work and intervene in at least one of the following fields involving PEA: data compilation and management; tracking (level and composition); PEA capacity building; and PEA analysis.

<sup>3</sup> At the time of writing, the draft report was unpublished.

<sup>4</sup> The Guidance Note is currently being updated and is expected to be published in early 2015.

More specifically, the following PEA-related initiatives are reviewed: ReSAKSS; Statistics of Public Expenditure for Economic Development (SPEED); Agricultural Science and Technology Indicators (ASTI); World Bank-supported Agriculture Public Expenditure Reviews (AgPERs); BOOST;<sup>5</sup> the International Development Statistics/Creditor Reporting System database (IDS/CRS); the FAO Government Expenditure on Agriculture (GEA) database; and the FAO MAFAP programme. The document does not offer exhaustive coverage of every initiative for the monitoring and analysis of PEA in Africa, rather it focuses on those of greatest relevance. It should be noted that the International Monetary Fund (IMF) Government Finance Statistics (GFS) system is not reviewed individually in this report. It is indeed a major contributor to PEA monitoring and analysis in Africa, however it does so in an indirect manner. IMF GFS data and methodological documents are used and/or referred to by several other PEA initiatives presented here. The indirect contribution of the IMF to PEA monitoring and analysis in Africa is thus specified in the sub-sections on each initiative.

The PEA monitoring and analysis initiatives are reviewed based on the following five criteria:

- "Nature and objectives", which describes the major features of the initiative: history, rationale, implementing agency and approach followed;
- "Scope", which presents the temporal and geographic coverage, as well as the precise PEA outputs and indicators targeted;
- "Method", which explains, in detail, the methodology adopted to monitor and analyse PEA;
- "Current status", which reviews the status of the initiative with regard to its stated objectives, as of the time of writing of the present report; and
- "Relevance for policy-makers", which evaluates, on the basis of the four previous criteria, the specific utility for policy-makers of the PEA initiative.

Lastly, the orientation of each initiative towards specific dimensions of PEA monitoring and analysis is assessed and discussed in the form of an "orientation index". The dimensions considered are "data collection"; "capacity building"; "CAADP commitment tracking" and "analysis of the quality of expenditure". The methodological principles and choices underpinning this orientation index are discussed in the section "Initiatives on monitoring and analysis of agricultural expenditures".

<sup>5</sup> BOOST is not an acronym, rather it is the name of a PEA initiative.



# Global context

The importance of improved PEA for African countries' agricultural and overall development has been recognized time and again since the end of the 1990s. Recent examples include FAO's State of Food and Agriculture (2012) finding that higher food insecurity results from lower public agricultural expenditure per worker;<sup>6</sup> IFPRI studies (2012a, 2012b) showing that investments in infrastructure, agriculture R&D or extension services have a strong impact on sector performance; and Nin-Pratt *et al.* (2011), which underlines the importance of targeted public investments in agriculture to release untapped sectoral growth.

Concurrently, the monitoring and analysis of African PEA has become an increasingly salient topic on the development agenda. This is due, in particular, to the rising importance attributed to evidence-based policy-making, especially regarding the allocation, implementation and impacts of public expenditure by African States, African regional economic communities and the donor and research community. It is also due to the strengthened focus on PEA effectiveness in a context of scarce donor and national resources and increasing demand for transparency and accountability from taxpayers. The various initiatives that have emerged to monitor and analyse PEA can be related to three fora:<sup>7</sup> (i) the political commitment from African States and Regional Economic Communities (REC) to generate better evidence on the level and quality of PEA; (ii) the commitment from the donor community to enhance the quality of aid; and (iii) the involvement of knowledge-providing institutions in PEA monitoring and analysis as a core field of expertise.

## Monitoring and analysing PEA to hold African States to their commitments

The backbone of the African Union's (AU) efforts to achieve economic integration and development in Africa is the New Economic Partnership for Africa's Development (NEPAD), adopted in 2001. The NEPAD programme aims at promoting development in a variety of fields, including Agriculture and Food Security. The Comprehensive Africa Agriculture Development

Programme (CAADP) was adopted in 2003 through the Maputo Declaration in order to operationalize NEPAD's vision for agriculture-led development. The commitments outlined in CAADP were regularly reaffirmed in subsequent years in the two Sirte Declarations (AU 2004, 2009), the Abuja Declarations (AU 2006a, 2006b), and more recently in the 2014 Malabo Declaration.

The CAADP objectives point straightforwardly to the importance of monitoring and analysis systems for agricultural spending. In 2003, all African States committed to the benchmark target of allocating at least 10 percent of national government resources to agriculture in order to attain a 6 percent growth rate for the sector, among other development objectives (AU, 2003; NEPAD, 2003; and re-affirmed by the Malabo Declaration). The AU has therefore supported the implementation of a monitoring mechanism to track PEA in Africa and to help African States uphold their commitments.

CAADP goals and supporting programmes also include identification of development strategies, enhancement of planning and implementation capacities, proper coordination between governments, the private sector, and development partners and the establishment of an enabling policy environment characterized by transparency and mutual accountability. In the 2014 Malabo Declaration, increased agricultural investments and strengthened information and tracking systems were highlighted as crucial elements in the CAADP process for achieving strategic results.

## Monitoring and analysing PEA to improve aid effectiveness

The importance of tracking agricultural expenditures also follows from the willingness of the community of donors and partner countries to enhance aid effectiveness. A crucial step was taken with the 2005 Paris Declaration, whose commitments were refined and reinforced by the Accra Agenda for Action (2008) and the Busan Partnership (2012). This process is anchored in the international development agenda. Enhanced aid efficiency is recognized as a key element to achieving the Millennium Development Goals (see, e.g. UN, 2014, and the Accra Accord, 2008).

Commitments to improve aid quality refer extensively to enhancing public financial management systems and

<sup>6</sup> See FAO, 2012, p. 6.

<sup>7</sup> A forum is here defined as an "area that is more or less institutionalized, framed by rules and specific dynamics, in which actors debate a given public policy" (Fouilleux in Boussaguet, 2014, p. 226)

institutional capacities in that domain. The agreements insist on the need to appropriately track donor expenditures, publish timely electronic data on development cooperation and inform and promote the enhanced alignment of donor and government objectives. More generally, the United Nations (2014, p. 6) views progress in data collection and monitoring methods as absolutely necessary to reaching concrete development goals through effective policymaking.

### Monitoring and analysing PEA to better inform policy making

PEA analysis being a technical field, it has garnered strong interest and involvement from knowledge-based institutions such as universities, research institutes, think tanks and international organisations. These institutions have compiled several indicators and undertaken numerous studies aimed at providing evidence to policy-makers and development stakeholders on the level, composition and trends of PEA in Africa and their relationship with the development and performance of the agriculture sector.

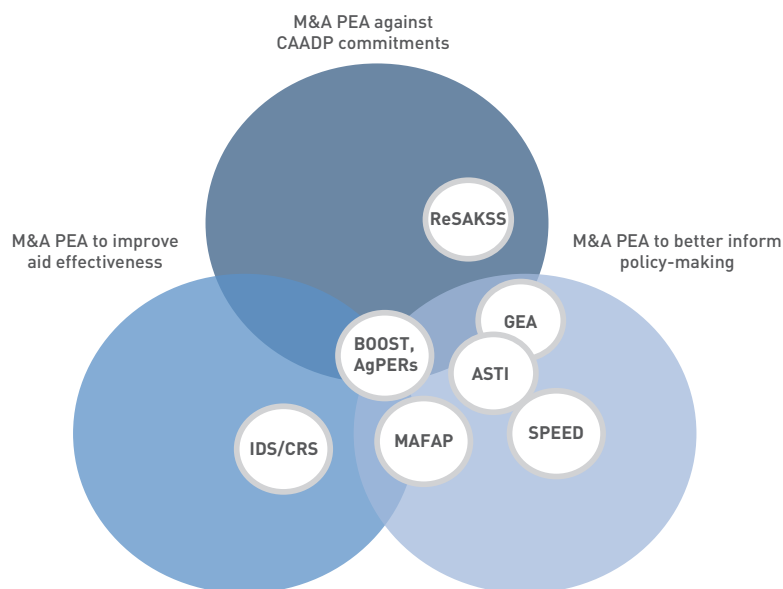
The evidence generated includes indicators and analysis of allocative efficiency, i.e. over and under-funded sub-sectors (e.g. research, infrastructure, extension);

technical efficiency, i.e. quality of execution rates, quality of the public financial management system, and effective level of decentralization; policy coherence, i.e. coherence between level and composition of PEA and stated development objectives at the macro and sectoral levels; and PEA effect and impact on variables such as production incentives, agricultural growth and poverty reduction.

### A tripartite policy context for PEA monitoring and analysis

Together, the three aforementioned domains constitute the policy context in which PEA monitoring and analysis initiatives – and their implementing agencies – position themselves. The domains are porous and overlapping, with most initiatives, declarations and events being at the intersection of two if not three of them. Joint agriculture sector reviews are an illustration of this phenomenon. Indeed, they are recognized as a component of the CAADP mutual accountability framework (see AU/NEPAD, 2011, p. 7) but also allow for improved alignment between donors and governments while letting other stakeholders (e.g. researchers) inform policymaking. A visual analysis of the positioning of each initiative reviewed in this report with respect to the three domains is illustrated in Figure 1.

**FIGURE 1. POSITIONING OF PEA INITIATIVES WITH REGARDS TO THE THREE MAJOR DOMAINS OF AFRICA PEA MONITORING AND ANALYSIS\***



Source: Authors

\*BOOST and AgPERs were merged in the same circle, given their congruent position.

# Initiatives on monitoring and analysis of agricultural expenditures

This section proposes an exhaustive review, based on available information, of the initiatives that contribute to the monitoring and analysis of PEA in Africa, as of October 2014.<sup>8</sup> The review is summarized in Annex 1.

Each PEA monitoring and analysis initiative is reviewed in terms of its nature, objectives, scope, method, current status and relevance for policy analysts and policy-makers, based on a literature review and the authors' expertise. In addition, this section contains an assessment of the initiatives' orientations towards specific and distinct areas of interest for policy-makers and development stakeholders. The assessment is presented visually, with radar graphics. The four dimensions assessed are: data management (1), capacity development (2), CAADP commitment tracking (3) and expenditure quality analysis (4).

These dimensions correspond to key areas of Africa's development that PEA monitoring and analysis initiatives should contribute to, as per their own standards. The authors singled out such areas by reviewing the PEA literature, and in particular the PEA initiatives' strategic documents, methodological guidelines and concept notes. The relevance of the four dimensions to African policy-makers and policy analysts was also taken into account, based on the authors' long-standing interactions with African policy analysts and policy-makers in the context of MAFAP, and the following elements emerged:

1. The development community is increasingly prioritizing enhanced data compilation and management in order to achieve the Millennium Development Goals (see e.g. IEAG, 2014). This is the primary justification for initiatives like SPEED, GEA and BOOST.
2. Capacity development is regularly flagged as key to institutionalizing PEA monitoring and analysis systems in developing countries (see e.g. Govereh, J. *et al.*, 2011, p. 218). Initiatives that engage in capacity development include, for instance, MAFAP through its country teams, and ReSAKSS through its SAKSS nodes.
3. The need to track CAADP commitments derives from the 2003 Maputo Declaration, which was reaffirmed in Malabo in 2014. The ability of a PEA monitoring and analysis initiative in Africa to generate and track indicators on progress towards CAADP objectives and targets is often a requirement for African policy-makers. It is mentioned as a rationale by several PEA initiatives, such as ReSAKSS, the World Bank AgPERs and ASTI.
4. Expenditure quality analysis is a regular function of the Ministries of Finance, Planning and Agriculture, and a crucial tool to achieving enhanced evidence-based policymaking. It is also important for improving the quality of aid. The World Bank-supported AgPERs, for example, seek to respond to such needs.
5. For each of the four dimensions, two criteria were established: data collection (1.1) and database maintenance (1.2); capacity development for data collection and management (2.1) and for PEA analysis (2.2); tracking of the Maputo/Malabo expenditure target (3.1) and tracking of other CAADP commitments (3.2); public financial management analysis (4.1) and public expenditures allocation and policy coherence analysis (4.2). For each criterion, qualifiers were then considered against which each initiative's orientation was assessed. The definition of these criteria is provided in annex 2, together with a description of their corresponding qualifiers.
6. This assessment is a product of the authors' analysis and is meant primarily as a tool to synthesize an initiative's "orientation", not its performance. The graphics below also allow for practical comparisons between initiatives. Importantly, each orientation assessment should be considered jointly with the other initiative analyses.

<sup>8</sup> Agriculture expenditure data were also made available by other organizations (see e.g. IFPRI *et al.*, 2013 for a detailed review). As mentioned above, the authors did not include the IMF GFS, which is assessed indirectly.

## Regional Strategic Analysis and Knowledge Support System (ReSAKSS)

### Nature and objectives

ReSAKSS is facilitated by the International Food Policy Research Institute (IFPRI) and the International Water Management Institute (IWMI) in partnership with the African Union Commission (AUC), the NEPAD Planning and Coordination Agency (NPCA) and regional economic communities. It was established in 2006 under the CAADP process, and supports CAADP implementation through the establishment of an Africa-wide information network and the identification of strategic policy options (see ReSAKSS, 2008, p. ix). ReSAKSS produces knowledge outputs, promotes national and regional policy dialogue and builds capacity in relation to these areas. In order to do so, ReSAKSS relies on its SAKSS network and established “country SAKSS nodes” in a number of African countries, spearheaded by an Africa-wide node and three regional nodes (Karugia, J., 2012, ReSAKSS workshop presentation). The SAKSS nodes are composed of country coordinators, research assistants and communication specialists, hosted within relevant country structures (ministries, planning units, research institutions) (Bahigwa G., ReSAKSS Annual Conference communication, 2013).

### Scope

An important share of ReSAKSS activities focus on the monitoring and analysis of PEA, in particular with regards to the commitment of African Union Member States to allocate 10 percent of their national budgetary resources to agriculture to help achieve a 6 percent annual growth rate in the sector. ReSAKSS compiles and publicly provides indicators on the total level of PEA and the share of PEA in total budget expenditures, gross domestic product and agriculture value-added for all African Union countries. ReSAKSS also contributes through in-depth PEA analyses at the country and regional levels. The time period goes from 1990 to the most recent year possible.

### Method

ReSAKSS has not produced a formal methodology document on the measurement of PEA, although they have published an indicative document in that regard (“Methodological guidelines for tracking public spending on agriculture with illustrations from Zambia” [Govere et al., 2011]). The three ReSAKSS PEA analyses

### BOX 1. WHAT IS COFOG AND WHY IS IT RELEVANT IN THE PEA MONITORING AND ANALYSIS CONTEXT?

The IMF, in its Government Finance Statistics (GFS) Manual (2014), distinguishes between *economic* and *functional* classifications of expenses: “the economic classification of expense identifies the types of expense incurred according to the economic process involved” while “the *functional* classification of expense provides information on the purpose for which an expense was incurred”.<sup>1</sup> COFOG is a *functional* accounting system that classifies public expenditure by “functions or socioeconomic objectives that general government units aim to achieve through various kinds of expenditure” (ibid.).

COFOG was developed by the OECD and published by the United Nations Statistics Division in 2000 (IMF, 2001). The COFOG system is based on a three-level structure. There are ten first-level categories, referred to as divisions, to which a code is associated. Agriculture falls under the “Economic Affairs” division (704). The second level is composed of groups within the division, such as “Agriculture, forestry, fishing and hunting” (7042), and the third level consists of activities within the groups. For the group “Agriculture, forestry, fishing and hunting”, the activities are “Agriculture” (70421), “Forestry” (70422) and “Fishing and hunting” (70423).

The COFOG classification system is thus not limited to agriculture, which represents only one of 69 groups. The use of the COFOG accounting system has been recommended, in particular, by the African Union (AU, 2006) and the

<sup>1</sup> IMF, 2014, p. 114. Authors’ italics.

of Malawi, Mozambique and Zambia have sought to follow the AU/NEPAD Guidance Note (2005) on the measurement of PEA. The note, quoted in a ReSAKSS paper (2008),<sup>9</sup> proposes defining PEA using the functional classification of expenditures of the Classification of the Functions of Government (COFOG) accounting system (see Box 1 and Annex 3). It should be noted that,

<sup>9</sup> The note, which is unavailable on the Internet, is referred to as “NEPAD (New Economic Partnership for Africa’s Development). 2005. *Guidance Note for agricultural expenditure tracking system in African countries*. South Africa, September 2005 (see AU/NEPAD, 2005 in the References section).

NEPAD NPCA (AU/NEPAD, 2005, 2014) to measure PEA with regards to the Maputo target. This is, however, a challenging exercise given that several African States do not use the COFOG accounting system, but rather employ an economic classification of public expenditures. Thus PEA analysts from ReSAKSS or the World Bank have often had to match African countries' public expenditure accounts with the COFOG categories. There is currently a growing consensus on the importance of African governments adopting the widely recognized COFOG classification system as a complement to the economic classification of their public expenditures – which would, in the field of PEA monitoring and analysis, be extremely helpful in terms of providing comparable and pre-classified data.

Furthermore, there is a recurrent discussion between various PEA monitoring and analysis stakeholders (essentially ReSAKSS and the World Bank) on the COFOG categories that should be used to consider PEA with regards to the Maputo target. Indeed, the NEPAD Secretariat has recommended that categories 70421, 70422 and 70423 be used to measure PEA (while excluding hunting from 70423), as well as expenditures for agricultural R&D (without naming a specific COFOG category). On the one hand, this ignores the key area of rural infrastructure (notably rural feeder roads), which generates benefits for agricultural development. Whether it should be included or not in the measurement of PEA with regards to the Maputo target remains unclear and debated. On the other hand, a technical challenge arises as agricultural R&D, some irrigation expenditures, and rural roads are included in COFOG categories that do not fall under "Agriculture, forestry, fishing and hunting" (7042). Agricultural R&D, for instance, is under the code 7048, "R&D Economic Affairs", while feeder roads and some irrigation infrastructure is under the code "Multipurpose development projects" (70474). This challenge, together with some other examples, has been commented at

length (see e.g. Action Aid, 2013 or Benin and Yu, 2012). Whether these COFOG categories are relevant to measuring PEA in the context of the Maputo target is also not clear: the World Bank has sometimes included them – or matched expenditure to these categories – and referred to this classification as "COFOG +", which adds agricultural R&D and "roads to farming areas and debt service" to COFOG (see e.g. WB, 2013). In order to address some of these issues, the AU/NEPAD is currently preparing an updated Guidance Note for the measurement and tracking of PEA (AU/NEPAD, 2014). The draft document refers to "core" components of COFOG and "core plus" components of COFOG, both of which are relevant to tracking PEA. The core components of the draft update Guidance Note include agriculture, forestry and fishing and still exclude hunting. The "core plus" components include feeder roads (but not rural roads), land administration, sustainable environmental activities contributing directly to agricultural production (but not those that focus on conservation) and agriculture-related portions of multi-sectoral projects. The draft document, at this stage, does not include references to the corresponding COFOG codes for these categories, nor does it explain how to methodologically single out the agriculture-relevant shares of "core plus" expenditures.

Finally, a limitation of COFOG-classified accounts in terms of PEA analysis is the aggregated nature of the data under this system. A number of initiatives, while recognizing the value added of using COFOG to measure PEA as a comparable aggregate (e.g. in order to track the Maputo target), offer a tool and a classification method that is specifically designed for in-depth analysis of the composition of PEA. These initiatives notably include MAFAP, ASTI and the World Bank-funded AgPERs.

due to unavailability of data classified per the COFOG system in the three countries, and to authors' personal divergences from NEPAD definitions of the COFOG categories to be used in measuring PEA, the studies have each adopted slightly different "COFOG-based" approaches.

Furthermore, in accordance with the statement made during the 2006 African Union Ministerial Conference of Ministers, ReSAKSS analyses consider actual expenditures over budgeted expenditures (when available – see AU, 2006). Centralized and decentralized expenditures,

as well as recurrent and investment expenditures are also all included.

For the production of its PEA monitoring indicators, ReSAKSS relies 80 percent on secondary data,<sup>10</sup> on average. More precisely, close to 38 percent of data come or were extrapolated from IFPRI's SPEED database (see below), 32 percent were extrapolated from 2008 AU surveys, 20 percent come from national data collected

<sup>10</sup> This percentage was estimated for 2010 using the data provided in ReSAKSS (2012).



by SAKSS nodes and 10 percent from grey literature. As seen below, a large share of IFPRI's SPEED data on African PEA come from the IMF's dataset, which is classified according to COFOG. It is difficult to trace the classification behind the data from the 2008 AU surveys (which are not available on the Internet), from the grey literature or from SAKSS nodes.

It is difficult to know if ReSAKSS's data include donor spending or not, as data are sourced from various institutions and ReSAKSS does not specify this on its website or in its "Complying with the Maputo Target" report (Benin and Yu, 2012). The same goes for actual and budgeted expenditures.

### Current status

ReSAKSS is still prevalent as an overall network of knowledge on PEA. As of October 2014, ReSAKSS had published indicators on the total level of PEA and the share of PEA in total budgeted expenditures, gross domestic product and agriculture value added for 47 African countries<sup>11</sup> for a period that spans between 1990 and 2010, with some gaps depending on the countries. Furthermore, three national public expenditures analyses<sup>12</sup> and two Africa-wide analysis reports have been published since 2006.<sup>13</sup> These typically provide information on the level of PEA, the share of PEA in the total budget, PEA per capita, PEA in GDP, disbursement rates, share of donor funds, share of off-budget funds, aggregate sectoral composition of agricultural expenditures, centralized versus decentralized funds, economic composition of expenditure and public versus private goods.

ReSAKSS is also seeking to expand its network of country nodes, in order to improve the number and quality of PEA indicators and analyses. Due to challenges encountered during the set-up of the SAKSS nodes, ReSAKSS has led Country Needs Assessments (CNAs) in several countries to estimate what is needed to successfully establish a node. At the time of writing, nine CNAs had been undertaken<sup>14</sup> and six country SAKSS nodes had

been established (Badiane, Makombe and Bahiigwa, 2014).<sup>15</sup>

### Relevance for policy analysts and policy-makers

ReSAKSS primarily aims to provide African policy-makers with a comparable figure on the level of their PEA with regards to the Maputo target, as it is mandated to support CAADP implementation. On three occasions, it has complemented this with in-depth public expenditure analyses, but so far this does not appear to be ReSAKSS' key objective or its key contribution to the PEA monitoring and analysis domain. There seems to be some flexibility in the way ReSAKSS is implemented: it can either be country-based (SAKSS node) or provide Maputo target-related indicators calculated externally (see *Method* on p. 6, above).

In this context, ReSAKSS will be highly relevant in terms of PEA for policy analysts and policy-makers seeking to:

- Obtain a measure of their PEA level, especially with regards to the Maputo target. The measure is comparable, in principle, with that of other countries although disparities in the definitions of PEA used to produce indicators compiled by ReSAKSS at the country level need to be taken carefully into account;
- Contribute to the overall CAADP process by sharing their PEA monitoring and analysis experience with other policy-makers at ReSAKSS events (such as the ReSAKSS Annual Conference) and CAADP-related processes (such as Joint Sector Reviews);
- Strengthen capacity at the country level on the measurement and analysis of PEA, and bolster PEA-related policy dialogue. This requires the establishment of a SAKSS node, however, which has occurred in only a limited number of countries thus far,

While bearing in mind that:

- ReSAKSS focuses on the compilation of data on the absolute level of PEA and not on its composition. It is not possible to obtain an efficiency (e.g. budgeted versus actual), donor/government or allocative breakdown of public expenditures;
- ReSAKSS uses secondary data to measure PE, from SAKSS nodes, the IMF, World Bank AgPERs and grey literature. The ReSAKSS measurement of PEA is thus

<sup>11</sup> Indicators for Zimbabwe stop in 1997. For Sudan, however, the indicators stop in 1999.

<sup>12</sup> On Malawi (Njiwa, D., *et al.*, 2008), Zambia (Govereh, J. *et al.*, 2011) and Mozambique (Zavale, H. *et al.*, 2011).

<sup>13</sup> See Benin *et al.* (2010) and Benin and Yu (2012).

<sup>14</sup> For Ethiopia, Ghana, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda and Zambia as per the information available on the ReSAKSS website, accessed on October 22, 2014: <http://www.resakss.org/2014conference/resources.html#cna>

<sup>15</sup> Congo Democratic Republic, Ghana, Mozambique, Rwanda, Tanzania, Togo.

not methodologically harmonized from country to country;

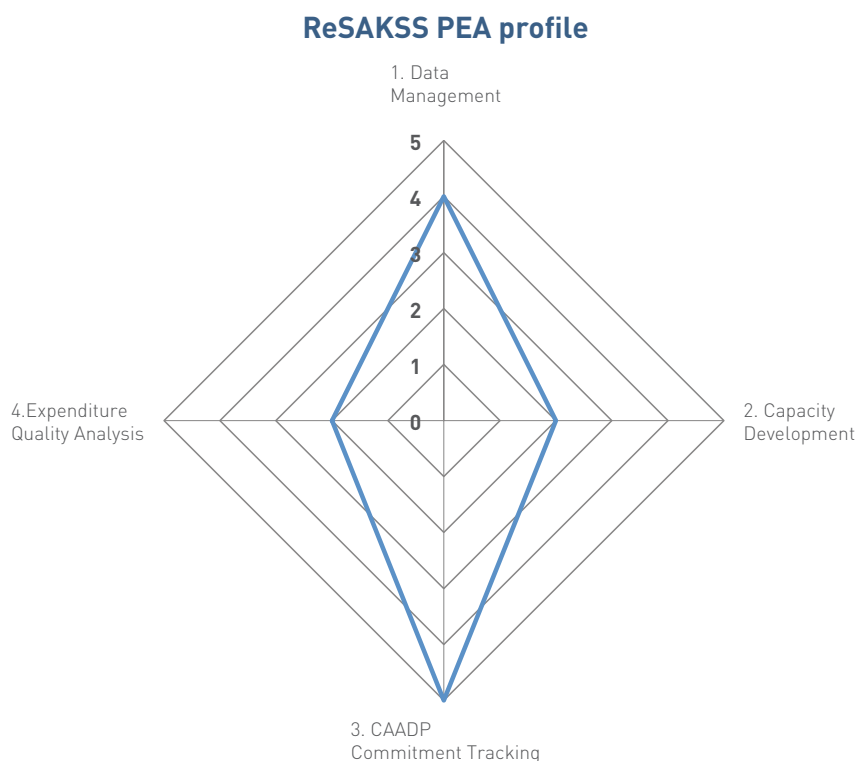
- ReSAKSS is not designed to be a capacity-building initiative. This may change with the growing focus of ReSAKSS on SAKSS nodes.

initiative, following four criteria.<sup>16</sup> ReSAKSS is heavily focused on tracking CAADP commitments and managing data, and is currently less focused on PEA analysis and capacity development.

Figure 2 provides a graphical assessment of the orientation of ReSAKSS as a PEA monitoring and analysis

<sup>16</sup> The methodology was introduced above and is summarized in annex 2.

**FIGURE 2. ORIENTATION ASSESSMENT OF THE RESAKSS PEA MONITORING AND ANALYSIS INITIATIVE**



Source: Authors

## Statistics of Public Expenditure for Economic Development (SPEED)

### Nature and objectives

The SPEED database was launched in 2010. It is maintained by IFPRI, and contains data on public expenditure in 147 countries. SPEED is intended as a tool to enable donors, development practitioners and the general public to explore linkages between public expenditure and development (Yu, 2013). Data are collected from secondary sources and compiled at the IFPRI headquarters (Washington D.C.).

### Scope

With regards to PEA in Africa, SPEED offers data on the total PEA (in real terms), the percentage of PEA in total expenditures, and per capita PEA. SPEED covers 39 African countries (IFPRI, 2013). The time range of the data is variable, often spanning between 1980 and 2012, with some gaps within this period.

### Method

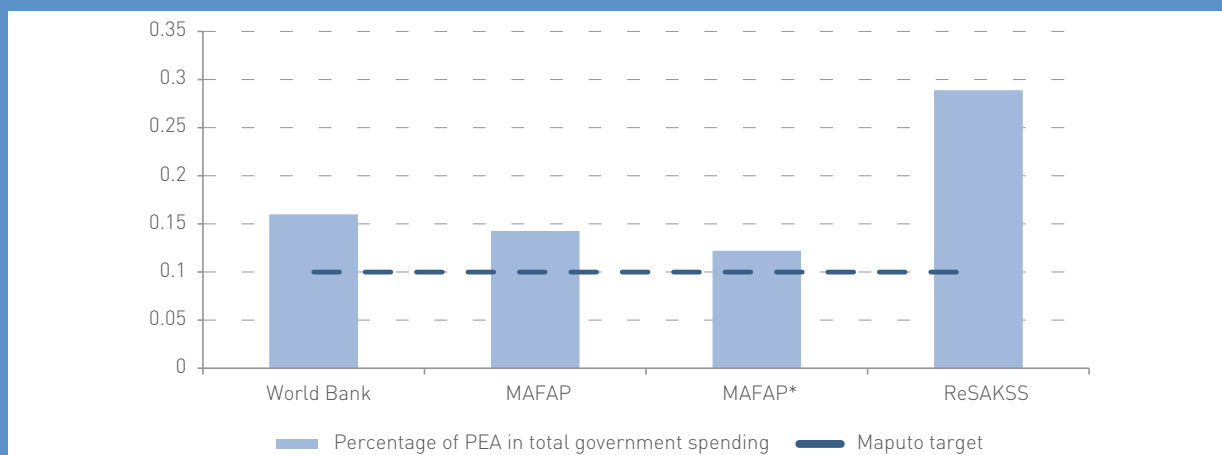
The PEA Africa data in the SPEED database are essentially derived from the IMF (Government Finance Statistics, mainly). It also includes data from the West African Central Bank, World Bank AgPERs, academic publications and national sources (Ministry of Finance

## BOX 2. MONITORING THE MAPUTO TARGET IN MALAWI

Malawi offers a good illustration of the challenges surrounding the monitoring of the Maputo 10 percent target. For 2010, the share of PEA within total government spending is available from three sources: a World Bank AgPER, a ReSAKSS study and the MAFAP database. The gathered values are provided in the figure below.

Percentages vary widely across the initiatives. Surprisingly, ReSAKSS reports a figure that is almost twice as large as those from the World Bank and MAFAP. Such discrepancies flow from differences in the data collection process, nature, objectives, scope and method for each initiative. The World Bank, which sought to produce a one-time AgPER, used a

AGRICULTURAL EXPENDITURES AS A PERCENTAGE OF TOTAL GOVERNMENT EXPENDITURES IN MALAWI, ACTUAL SPENDING, FROM THE WORLD BANK, MAFAP (AGRICULTURE-SPECIFIC AND AGRICULTURE-SUPPORTIVE), MAFAP\* (AGRICULTURE-SPECIFIC) AND RESAKSS, 2010



Source: MAFAP (2014), World Bank (2013c), Benin and Yu (2012).

combination of expenditures sourced from selected ministries (including the Ministry of Agriculture and Food Security), district councils and off-budget sources to compute the level of PEA. It did not apply a standardized definition such as COFOG. ReSAKSS's data, computed by Benin and Yu (2012), were obtained from the SPEED database, which primarily contains data from the IMF Government Finance Statistics (see Yu, 2013) based on the COFOG categories defined by the IMF.<sup>1</sup> ReSAKSS's objective being the provision of Maputo target tracking indicators for all African countries, it applied – in the Malawi case – the most consistent method available and the closest to that recommended by the African Union. This may not result in as accurate a measurement as that of the World Bank's AgPER, however, which was undertaken at the country level. By contrast, MAFAP uses its own definition of PEA, better tailored for a broad and disaggregated

analysis of the total level and composition of policy support to food and agriculture. MAFAP also collected less off-budget expenditures than the World Bank-supported study. In addition, the MAFAP PEA measurement does not chiefly intend to track the Maputo target, so the Malawi level of PEA calculated by MAFAP can only be compared with eight other MAFAP-supported countries, so far.

In general, the case of computing the Maputo target in Malawi for a given year shows the complexity of PEA monitoring and analysis. Indeed, while precisely disentangling the sources of the observed differences may prove very difficult, time-consuming and probably unnecessary, a good understanding of the methodologies that were used to produce each figure can help to appropriately interpret the values across initiatives.

<sup>1</sup> The IMF has adopted a slightly different definition of certain COFOG categories from the one recommended by the OECD and the United Nations.



and Ministry of Agriculture). For the year 2007,<sup>17</sup> 54 percent of the data came from the IMF, 27 percent from national sources and 18 percent from the Central Bank of West African States (BECEAO).<sup>18</sup> Knowing that the IMF's Governance Finance Statistics Manual (2014) promotes the use of COFOG, one can assume that at least 54 percent of the PEA data available in the SPEED database are based on the COFOG classification. It is unclear how the BECEAO has defined PEA, and it is very difficult to trace the methodology that was used for the national PEA data that can be found in SPEED.

SPEED data are at times extrapolated to fill in missing values in the database, using averages, linear trends or 5-year average growth rates.

### Current status

IFPRI's SPEED database is active. As regards African countries, the last update contains data from 1980 up to 2012. An important number of African countries are covered. For these countries, however, data gaps frequently occur, and the datasets typically stop in 2010, 2011 or 2012.<sup>19</sup>

### Relevance for policy-makers

SPEED is solely intended to provide data as a public good and is not addressed, *per se*, to African policy-makers. SPEED nevertheless remains the source of 38 percent of ReSAKSS' data. It is also widely used by development partners to conduct global research on public expenditure (see e.g. FAO, 2014).

In this context, SPEED is relevant for policy-making as regards PEA:

- As an internationally recognized source of comparable, time-series PEA indicators that can be used to conduct research by the Ministry of Agriculture's policy analysis unit or a similar unit,

While knowing that:

- SPEED PEA data come chiefly from the IMF, which itself often collects them from the Ministries of Finance of African countries. Hence, for policy-makers,

the SPEED data are mostly useful for cross-country comparisons;

- SPEED PEA data do not use a common methodology for all countries as it gathers secondary data from more than one source;
- SPEED data are not updated yearly. They currently stop in 2012;
- The SPEED database is maintained from the IFPRI headquarters and does not involve country-level work.

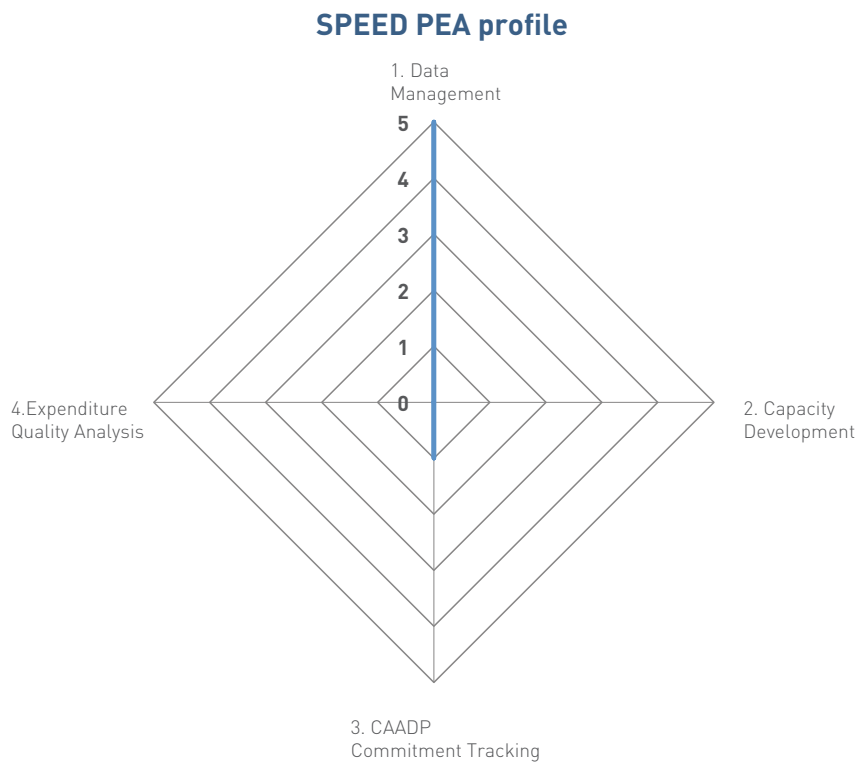
Figure 3 provides a graphical assessment of the orientation of SPEED as a PEA monitoring and analysis initiative, following four criteria. Because SPEED consists in maintaining a database, it is heavily oriented towards data management. Its indicators also allow for monitoring of CAADP commitments (e. g. the Maputo/Malabo target).

<sup>17</sup> This year contained a wealth of data on African countries' PEA and was thus the easiest to analyse.

<sup>18</sup> Percentages computed using IFPRI, 2013, Appendix Table A8.

<sup>19</sup> When the SPEED database was consulted by the authors on 12 November 2014, only two African countries had indicators up to 2011 and 2012, respectively: Mozambique and Rwanda.

FIGURE 3. ORIENTATION ASSESSMENT OF THE SPEED PEA MONITORING AND ANALYSIS INITIATIVE



*Source: Authors*

## Agricultural Science and Technology Indicators (ASTI)

### Nature and objectives

ASTI is led by IFPRI and was established in 2001 as an offspring of the “Indicators Series Project” initiated by IFPRI and the International Service for National Agricultural Research (ISNAR) in 1984. ASTI provides data trends and analyses on agricultural R&D spending in the developing world. The motivation for ASTI is the widespread evidence that investments in agricultural research greatly contribute to economic growth, agricultural development and poverty reduction (see IAASTD, 2008 and WB, 2007 cited in ASTI, 2011). In addition, ASTI informs policy dialogue at various levels, including on the assessment of progress towards CAADP objectives with respect to agriculture research. Although this has not been ASTI’s long-standing focus, the initiative has added capacity building for data collection and analysis for agricultural research to its 2011-2015 Operational Plan (ASTI, 2011).

### Scope

ASTI’s input to the field of PEA monitoring and analysis concerns public expenditure on agricultural research. More specifically, ASTI provides indicators on the total public expenditure on agricultural R&D, agricultural research staff, agricultural research funding sources and the type of agricultural research undertaken. Additionally, ASTI produces worldwide and regional reports on the public expenditures for agricultural R&D, together with country-specific briefs, notes and fact-sheets. ASTI currently covers 76 developing countries, of which 40 are in Africa. The period covered spans from 1981 to 2010, with various gaps depending on the country and the category.

### Method

ASTI “collects and processes its datasets using standard procedures and definitions developed by the OECD and the United Nations Educational, Science and Cultural Organization (UNESCO)” (ASTI, 2014b). Such standards are presented in the OECD’s Frascati Manual (2002). Because the Frascati Manual was designed for OECD countries, ASTI had to adapt it to the specific context of developing countries. Such changes are explained in

detail in ASTI’s practitioners guide (2014b). The overarching classifying principles are as follows: (i) R&D is defined as “basic research, applied research and experimental development”; (ii) this leaves aside expenditures for Education and training (except for PhD students’ research), Science and technology information services (except when conducted primarily for the purpose of R&D support), General purpose data collection and Administration and other support activities (except those that are exclusively for R&D); (iii) only public expenditures for national research systems are counted (not bilateral/multilateral research systems); (iv) off-farm research is excluded (agrochemical industry, machinery, food processing), as is discipline oriented basic research; and (v) both public (government, higher education, non-profit) and private sector (business, public enterprises) research systems are included.

ASTI uses survey forms to collect the required data from research institutes.

### Current status

As of October 2014, ASTI is active. It offers indicators for up to 40 African countries and has published ten global reports, eight Africa-specific reports, two e-atlases and

country-specific factsheets, briefs and notes for several African countries.

### Relevance for policy-makers

ASTI will be relevant for policy-makers seeking to:

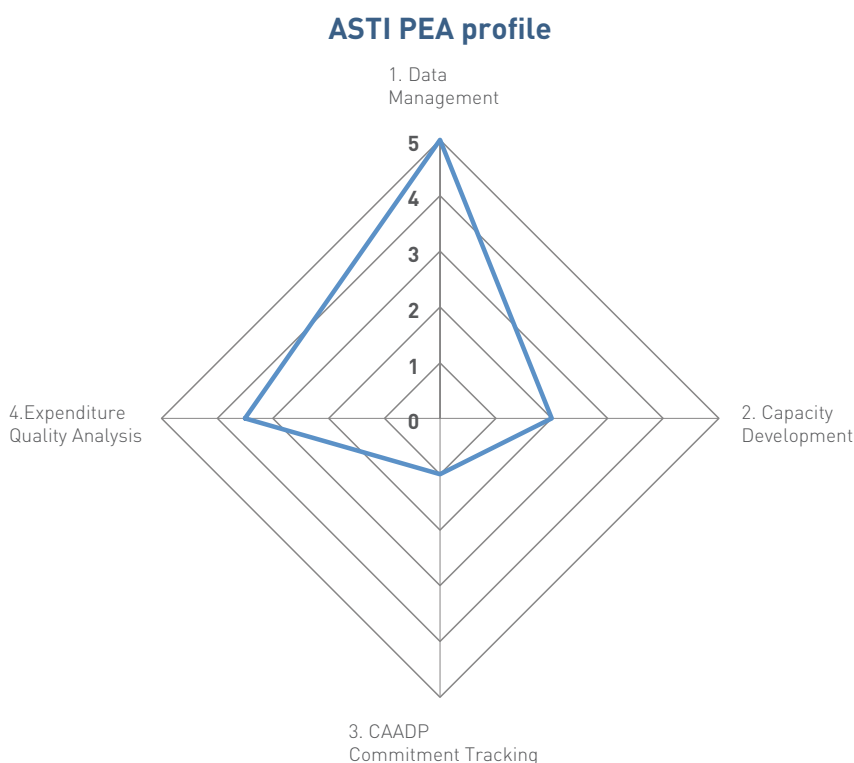
- Obtain extremely detailed, time-series of indicators on public expenditures for agricultural research in their country;
- Benefit from in-depth analyses as well as compact notes and policy briefs on the level and composition of support to agricultural research in their country,

While knowing that:

- ASTI is not, so far, focused on capacity building at the country level. It essentially collects data through survey forms;
- ASTI data are not updated yearly.

Figure 4 provides a graphical assessment of the orientation of ASTI as a PEA monitoring and analysis initiative, following four criteria. Due to its specialization in expenditure for agricultural R&D, it is strongly oriented towards analysis and data management.

FIGURE 4. ORIENTATION ASSESSMENT OF THE ASTI PEA MONITORING AND ANALYSIS INITIATIVE



Source: Authors

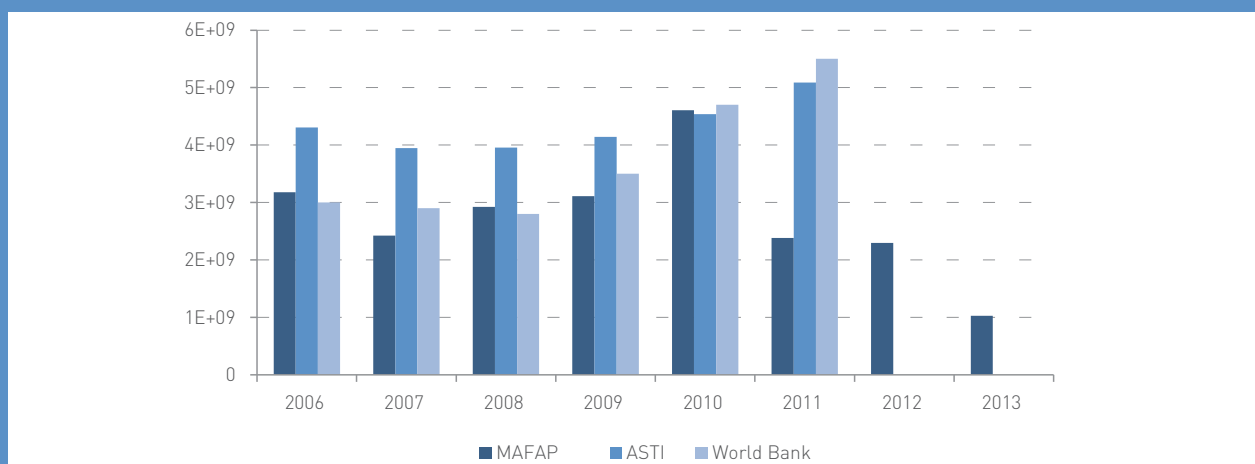
### BOX 3. PUBLIC EXPENDITURES IN SUPPORT OF AGRICULTURAL RESEARCH IN BURKINA FASO

The World Bank, ASTI and MAFAP have produced three different measures of public expenditures in support of agricultural research for the 2006-2013 period in Burkina Faso (figure below). This may seem confusing and overlapping at first glance, evoking the need for better harmonization of aid underlined in the Paris Declaration (2005). However,

there is a clear and complementary rationale behind each PEA initiative. In this case, differences in the figures are not the symptoms of a problem.

The World Bank, ASTI and MAFAP have produced three different measures of public expenditures in support of agricultural research for the 2006-2013 period in Burkina

#### PUBLIC EXPENDITURES IN SUPPORT OF AGRICULTURAL RESEARCH IN BURKINA FASO, ACTUAL SPENDING, FROM MAFAP, ASTI AND THE WORLD BANK, IN BILLIONS OF FCFA, 2006-2013



Source: MAFAP (2014a), World Bank (2013c), Benin and Yu (2012).

Faso (figure above). This may seem confusing and overlapping at first glance, evoking the need for better harmonization of aid underlined in the Paris Declaration (2005). However, there is a clear and complementary rationale behind each PEA initiative. In this case, differences in the figures are not the symptoms of a problem.

In the case of Burkina Faso, ASTI offers data on the sources of funding for the country's main agricultural research institute, the National Institute of Agricultural Research (INERA) for the 1991-2011 period, and a cross-country comparison of the number of agricultural researchers between Burkina Faso, Ghana, Mali and Senegal. This extensive geographic coverage was made possible by ASTI's focus on solely agricultural research, as well as the budget and timesaving data collection method. For Burkina Faso, ASTI data are sourced from surveys, secondary sources and estimates and include several research agencies and higher education institutions (ASTI/INERA, 2014). ASTI includes government, higher education and non-profit research in its definition of public expenditures for agricultural research.

MAFAP, on the other hand, does not specifically seek to produce indicators and analyses on public expenditures for agricultural research. Rather, MAFAP's primary objective is to strengthen food and agricultural policy monitoring systems, as a whole, in developing countries. This is done by working in partnership with and developing capacities of Ministries of Agriculture and Finance and/or research institutes. PEA is one of the two components of MAFAP's food and agricultural policy monitoring and analysis system, along with price and market policies, and agricultural research is one of the 32 sub-categories of MAFAP's PEA measurement. In Burkina Faso, the data on PEA have been collected bi-annually by the MAFAP team of the Ministry of Agriculture and Food Security. Data were obtained from the General Directorate of the Budget (DGB), the Directorate of Project Evaluation and Investment Monitoring (DEPSI) and the General Directorate of Cooperation (DGCOOP). They were collected in the form of projects and programmes and their corresponding expenditures, which were then re-classified and aggregated into the aforementioned categories, including agricultural

research. Additionally, MAFAP data exclude what are considered “administrative costs” from its classification into sub-categories of PEA. In total, the MAFAP data on agricultural research public expenditures were mainly composed of budgetary transfers to INERA, together with a few other research institutes, but also research activities included in development projects.

The World Bank follows a third approach, different from those of MAFAP and ASTI. Under the SNAPE programme (Strengthening National Comprehensive Agricultural Public Expenditure in Sub-Saharan Africa), it set up a team of foreign and local expert consultants to undertake an Agriculture Public Expenditure Review. The review sought to determine the technical and allocative efficiency of PEA in Burkina Faso, within the framework of the CAADP process. This is unlike MAFAP and ASTI, which produce time-series of indicators with periodic updates and based on an unchanged methodology to inform analyses. The World Bank approach also differs from MAFAP’s in that it does not seek to develop capacity and establish a policy monitoring and analysis system at the country level. Rather, the World Bank sought to carry out a high-quality AgPER that was strongly centred on the efficiency of the public financial management system, without a detailed pre-defined methodology.<sup>1</sup> For its allocative efficiency analysis, the World Bank team used the existing classification of PEA in Burkina Faso, and matched it to the COFOG classification

<sup>1</sup> Although the methodology used in AgPERs is usually country-specific (for instance, AgPERs do not use a single, standardized expenditure classification grid), general guidance on how to undertake AgPERs is provided in the World Bank “Practitioners’ Toolkit for Agriculture Public Expenditure Analysis” (2011b).

system and categories recommended by the African Union. Regarding agricultural research, the World Bank team included expenditures on the INERA, the Applied Science and Technology Research Institute (IRSAT) and the Forestry Seeds National Centre (CNSF), collecting it from the DGB, DEPSI and DGCOOP.

With such a diversity of approaches, data collection and classification methods, one would expect the figures to diverge. Yet they are quite aligned between 2006 and 2010, with ASTI data being slightly higher in absolute values. A difference can be observed in 2011, as MAFAP may have underestimated budgetary transfers to the INERA. In relative terms, the World Bank, MAFAP and ASTI estimate that the budget for agricultural research accounted for 0.3, 0.2 and 0.4 percent of agricultural GDP over their respective periods of analysis. One can strongly argue that the diversity of approaches and analyses of public expenditures in support of agricultural research has produced more benefits than drawbacks for Burkina Faso’s policy-makers. They now have: (i) highly informative and disaggregated information, comparable over twenty years and across seventy countries, from ASTI; (ii) an estimate of the efficiency of the support for agricultural research, integrated into a broader AgPER by the World Bank; (iii) a country-based system established in the Ministry of Agriculture and Food Security that analyses the level of budgetary support to agricultural research, with figures that are comparable with other agriculture sub-sectors, over eight years and across ten countries; and (iv) three sources of information that can be cross-checked to ensure the accuracy and validity of the trends that are observed.

## World Bank Agriculture Public Expenditure Reviews (AgPERs)

The World Bank supports PEA studies that generate AgPERs through three channels and funding sources: the “Strengthening National Comprehensive Agricultural Public Expenditure in Sub-Saharan Africa” (SNAPE) program, the World Bank/DFID “Public Expenditures for Pro-Poor Agricultural Growth” (PEPPAG) project and “free-standing” AgPERs.

### Nature and objectives

The SNAPE program was established in 2009, and seeks to “support the African Union Maputo Declaration’s focus on agricultural public expenditure

to reduce poverty and increase growth” (World Bank, 2009). SNAPE thus conducts PEA reviews in order to support CAADP implementation, particularly as regards agriculture program formulation at the national level (World Bank, 2009). It is in that sense very similar to the ReSAKSS monitoring and analysis of PEA.

The World Bank/DFID “Public Expenditures for Pro-Poor Agricultural Growth” began in 2006 (World Bank, 2011b, p. 1). It had three components: the first focused on writing specialized thematic papers to analyse the evolution and impact of PEA; the second was dedicated to analysing PEA in specific countries (World Bank, 2008a, 2010); the third component consisted in capacity-building activities (World Bank, 2011b). The general

aim of the project was to inform national institutions and donors on how to better align PEA with stated development objectives (Cammack *et al.*, 2008).

Freestanding AgPERs are the result of demand from national governments or are undertaken as components of larger public expenditure reviews (see e.g. World Bank, 2008b).

### Scope

The indicators provided in World Bank AgPERs vary widely in terms of purpose, specificities of the country covered and data availability. AgPERs usually focus on agricultural expenditure allocative efficiency (composition for different sub-sectors) and technical efficiency (execution/disbursement rates, and public financial and procurement management). Indicators provided in AgPERs are comparable with those of the ReSAKSS analyses (see ReSAKSS Scope, on p. 6, above).

In the AgPERs produced under SNCAPE, indicators are usually based on COFOG categories, following the AU/NEPAD recommended COFOG category set (see Box 1 and e.g. World Bank, 2013c) or the so-called “COFOG +” category set (World Bank, 2013b). The same holds for AgPERs produced in the context of the PEPPAG project. The freestanding AgPERs that are accessible (see e.g. World Bank, 2008) do not seem to refer to a standardized definition of PEA, and use country-specific definitions.

In terms of geographical coverage and time span of the indicators, SNCAPE focuses on African countries and its AgPER indicators span from 2001 to 2012, with variations according to country. PEPPAG had a global geographical scope. The PEPPAG AgPERs for African countries contain values ranging from 2001 to 2009. Freestanding AgPERs can be conducted for any developing country. As an example, the Ethiopia (2008) AgPER covers the 1997/98-2005/06 period.

### Method

The World Bank has used a variety of approaches in undertaking AgPERs. In some countries, such as Ghana, it has set up a counterpart team and a technical working group consisting of international and national agriculture public expenditure experts, supported by consultants. In other countries, such as Malawi, a smaller team of national and international consultants conducted the AgPER. Unlike other initiatives (ASTI, SPEED, ReSAKSS

or MAFAP), the World Bank AgPERs are not intended as a means of producing a database of PEA indicators.

A reference toolkit for World Bank AgPERs was published in 2011 in the context of PEPPAG (World Bank, 2011b). The toolkit is in line with the World Bank’s flexible approach to PEA analysis, which focuses on country-specific needs and tailors the methodology accordingly. As regards classification methods, the document does not recommend a specific attribution procedure, but rather states, “(...) many countries adopt their own definition of the sector (...) these country-specific definitions can also be used to guide the thematic scope”. The toolkit does bring practitioners’ attention to the COFOG system as a potential benchmark for defining and classifying PEA. The use of COFOG by SNCAPE and PEPPAG, as in the case of ReSAKSS studies, constituted a challenging “expenditure matching exercise”, given that most African States do not use the COFOG system. Classification methods under SNCAPE, PEPPAG or freestanding AgPERs were thus mostly country-specific.

### Current status

When the MAFAP secretariat consulted the Open Knowledge Repository of the World Bank,<sup>20</sup> the following documents were accessible: 7 SNCAPE AgPERs (for Ghana, Guinea, Liberia, Malawi, Senegal, Tanzania and Togo), 2 African PEPPAG AgPERs (for Nigeria and Uganda) and 1 African freestanding AgPER (for Ethiopia). Although the 2009 SNCAPE program document (World Bank, 2009) mentions 2009-2013 as the program time span, its most recent publication is dated March 2014. PEPPAG closed in 2011<sup>21</sup> and freestanding AgPERs are, by definition, not program-dependent.

### Relevance for policy analysts and policy-makers

The World Bank-supported AgPERs support several objectives. The importance of enhancing the quality of PEA composition to target specific development objectives, knowing that several donors are scaling up their support for the agriculture sector, is regularly emphasized (World Bank, 2009, 2011b). In addition, as a major provider of loans, grants and specialized services in developing countries, the World Bank favours sound financial management and execution efficiency. This is

<sup>20</sup> Consulted on October 10, 2014.

<sup>21</sup> It was not possible to find information on the official closing date of the project, but the most recent PEPPAG output appears to be the “Practitioner’s Toolkit for Agriculture Public Expenditure Analysis” (2011).

to some extent reflected in the AgPERs, which dedicate considerable attention to budget procedures and performance, although they are not the primary focus.

In this context, the World Bank AgPERs will be very relevant for policy analysts and policy-makers seeking to:

- Obtain a detailed country-specific PEA analysis that is focused on expenditure effectiveness and assessment of the budget process in the sector, and that studies PEA composition using broad, COFOG-related categories;
- Gain timely access to analytical information on PEA;
- Access clear policy recommendations – based on a strategic understanding of the role of the agriculture sector in the country’s economy – that support stated development objectives, enhanced financial management and improved budget efficiency,

While knowing that:

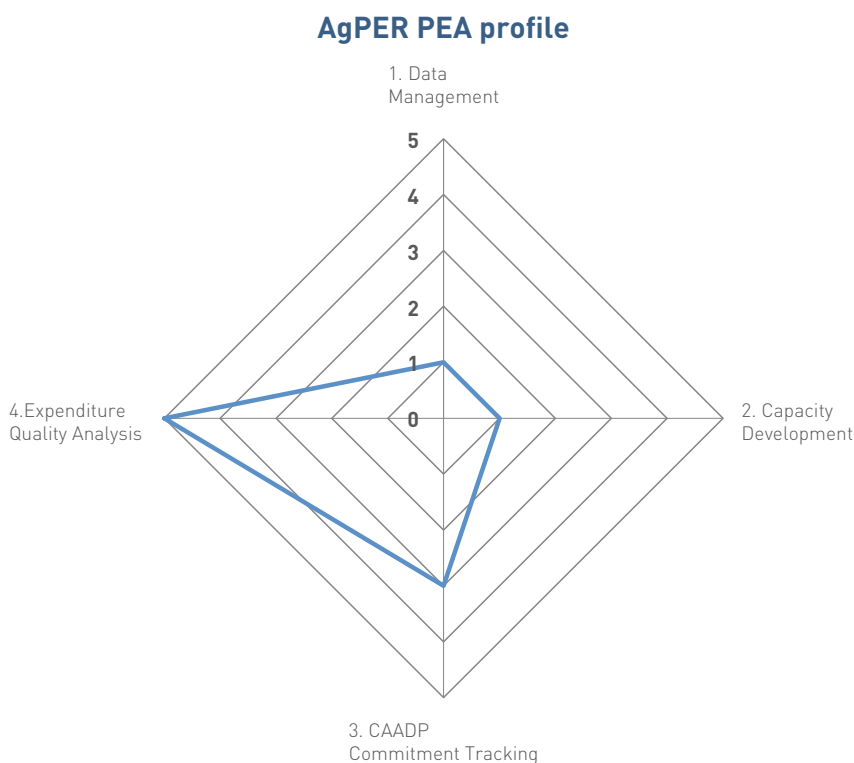
- AgPERs, at the country level, are not produced at regular intervals and the AgPER production process does not explicitly include capacity-building activities

or the establishment of an institutionalized country team able to monitor and analyse PEA in a sustainable manner;

- AgPERs use a macro-oriented approach and rely predominantly on aggregated indicators available from national institutions. No systematic data collection with the aim of producing more disaggregated indicators is undertaken;
- AgPERs are not straightforwardly envisioned as a tool to develop and feed a PEA database ;
- AgPERs do not always refer to the monitoring of regional or international development plans (e.g. CAADP).

Figure 5 provides a graphical assessment of the orientation of WB AgPERs as a PEA monitoring and analysis initiative, following four criteria. In particular, AgPERs are highly oriented towards expenditure quality analysis, as they entail detailed study of the PEA budget process, PEA composition and the sectoral economic context. Some core indicators are relevant and included for the monitoring of CAADP commitments.

FIGURE 5. ORIENTATION ASSESSMENT OF THE WORLD BANK AGPER PEA MONITORING AND ANALYSIS INITIATIVE



Source: Authors



## BOOST database

### Nature and objectives

The World Bank is the curator of the BOOST database, which aims to provide information on agricultural spending in the developing world (World Bank, 2011a). It was launched in 2010 and makes expenditure information available on user-friendly online interfaces with the aim of helping governments, researchers and the international community to analytically support their policymaking.

### Scope

The indicators offered in BOOST are disaggregated according to various classifications (government level, administrative unit, economic classification, etc.).<sup>22</sup> Expenditure data can be extracted in the form of aggregated indicators (“Agriculture and Rural Development”, “Environment and Natural Resources”, “Physical infrastructure”, “Research, innovation and technology”, etc.). The BOOST data interfaces contain a mapping tool that allows for visualization of expenditure according to geographical zone. BOOST also provides access to comprehensive Excel files containing all the public expenditure data collected for a given country.

BOOST is currently deployed in about 40 developing countries.<sup>23</sup> For African countries, the yearly expenditure data span from 2003 to 2013, with variations across countries.

### Method

Some BOOST methodological guidelines can be found in World Bank (2011a). A step-by-step guide to developing a BOOST is also available online.<sup>24</sup> The purpose is to provide information on how to format the data available in national institutions in order to compile a comprehensive dataset on public expenditures and develop a user-friendly online interface.

### Current status

As of October 2014, BOOST offered expenditure data for three African countries: Kenya, The Seychelles and

Togo.<sup>25</sup> A fully operational data interface integrating a mapping tool is available only for Kenya,<sup>26</sup> but complete expenditure datasets in Excel format are accessible for all three countries.

### Relevance for policy analysts and policy-makers

In this context, establishing a BOOST database in a country would be highly relevant for policy analysts and policy-makers seeking to:

- Obtain a single Excel file containing the full set of available public expenditure data;
- Access strongly aggregated indicators, not only for PEA but for all sectors;
- Support the creation of a web-based interface allowing a wide set of stakeholders (researchers, donors, etc.) to access public expenditure data, with a possibility of disaggregating expenditures by geographical region and major sector/function,

While knowing that:

- The BOOST initiative is essentially a way to value already existing data, thereby favouring evidence-based policymaking, research, mutual accountability and transparency;
- It is not centred on capacity-building, data collection or the unveiling of unexploited data;
- BOOST is data-focused and will serve as a tool for further analysis.

Figure 6 provides a graphical assessment of the orientation of BOOST as a PEA monitoring and analysis initiative, following four criteria. Being a data-centred initiative, BOOST is essentially positioned on a single criterion, although some of the information generated is relevant for monitoring CAADP implementation. The low scores reflect the limited country coverage to date.

<sup>22</sup> <http://wbi.worldbank.org/boost/boost-initiative>, visited on October 10, 2014.

<sup>23</sup> *Ibidem*.

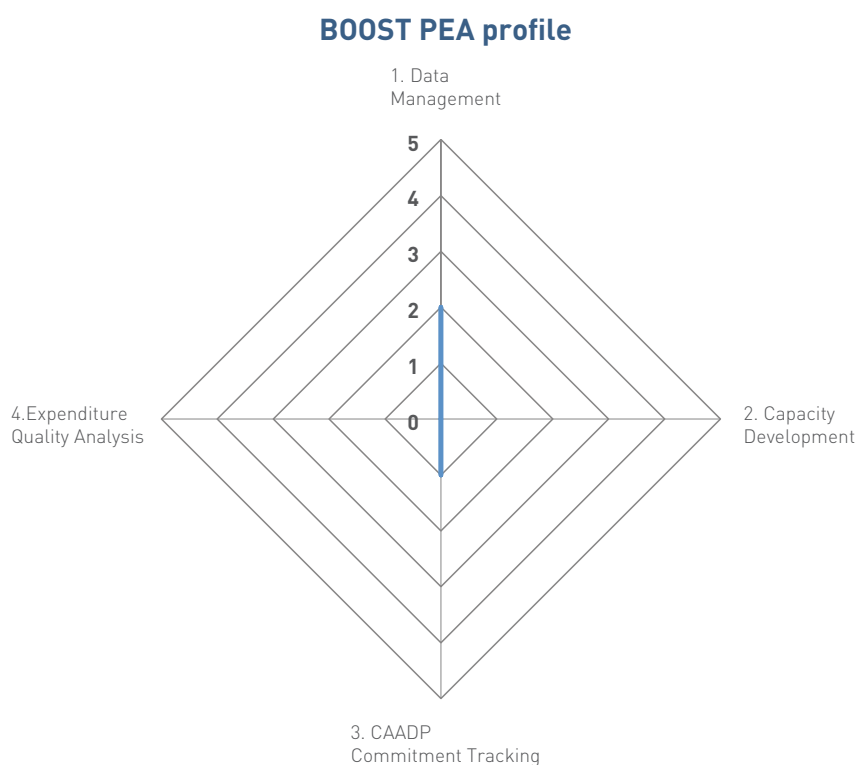
<sup>24</sup> See <http://siteresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/285741-1326399585993/BoostStepGuide.pdf>

<sup>25</sup> A presentation mentioning that BOOST databases have been prepared in Uganda and Tanzania is available online (Kheyfets *et al.*, 2014). However, the authors could not access the associated datasets.

<sup>26</sup> See <http://kenya.wb-boost.org/>.



FIGURE 6. ORIENTATION ASSESSMENT OF THE BOOST PEA MONITORING AND ANALYSIS INITIATIVE



*Source: Authors*

## International Development Statistics/ Creditor Reporting System Database

### Nature and objectives

The OECD Development Cooperation Directorate maintains an International Development Statistics Database (IDS). The IDS comprises data from the OECD's Development Assistance Committee (DAC) annual aggregated database on Official Development Assistance (ODA) and other resource flows, and from the OECD's Creditor Reporting System (CRS). The latter contains quantitative and qualitative aid data from OECD DAC Member States but also from over 18 non-DAC countries, 33 multilateral agencies and the Bill and Melinda Gates Foundation. Data are categorized by funding country/agency, recipient, sector activity and project. The IDS is the authoritative source for aid data, and indirectly for PEA aid data.

OECD IDS data on aid is collected from OECD donor countries themselves and not from recipient developing countries. This represents an important difference with the other initiatives presented in this document.

The Member States of the DAC, and some non-Member States and multilateral agencies, indeed submit their aid data to the OECD, classified with the CRS system. The OECD then verifies and publishes the data in the CRS database (Petras, 2009). There are therefore obvious discrepancies between the donor expenditures reported in IDS and donor expenditures at the country level. An OECD and Development Gateway study (Petras, 2009) revealed that the aggregate figures for aid in Burkina Faso and Malawi were nonetheless "broadly comparable" and that there were no "enormous differences in terms of the breakdown". While this may stand for overall aid figures, a comparison drawn by MAFAP between national and CRS data on agricultural aid aggregate amounts for five African countries (MAFAP, 2013) revealed that the OECD data were either significantly higher or lower than MAFAP's, depending on the CRS "category set" that was considered (Angelucci, 2013). In Ghana, however, CRS and MAFAP data seem to be comparable for the 2006-2011 period (see Box 4). Another study by the Overseas Development Institute (ODI, 2012) shows that a substantial amount of aid for agriculture is not labelled by donors under the "agriculture category"

of CRS in the data submitted to the OECD. Therefore, capturing aid to agriculture with the CRS system can prove tricky.

Interestingly, two of the top 13 OECD donors – the World Bank and the United States – do not use CRS coding in their own aid management systems, rather they map onto it (IATI, 2010). These are good indications that it is possible to use mapping tools and methods to convert expenditure data to a functional classification, and could inform current discussion within the PEA monitoring and analysis field on the mapping of national accounts to COFOG.

### Scope

The IDS database contains ODA for 57 African countries, for the 1960-2012 period. ODA indicators include aid for agriculture, as discussed in the section below.

### Method

The OECD classifies aid following a unique reporting system, the CRS++. The CRS++ is a functional accounting classification system that attributes numeric codes to sectors and sub-sectors. It is, in that sense, similar to COFOG. The CRS system was jointly established in 1967 by the OECD and the World Bank (OECD, 2013). CRS purpose codes were established based on the United Nations' International Standard Industrial Classification (ISIC) and adapted over time to the specificities of aid flow measurement (IATI, 2010).

Two CRS++ "category sets" are currently recognized by the OECD to define agricultural aid within the CRS system. The first is the sum of sector allocable aid to agriculture (CRS code 311), forestry (312) and fishing (312). They are conveniently referred to as AFF in an ODI study for the Global Donor Platform for Rural Development (Global Donor Platform for Rural Development, 2012). The second set, labelled AFF+ by ODI, adds three CRS purpose codes: rural development (43040), food security programmes (52010) and emergency food aid (72040). The OECD/DAC states that although AFF+ sectors "do not support agricultural development *per se*, they contribute to improving rural livelihoods and food security in developing countries" (OECD, 2010a).

CRS++ differs from COFOG, which has prompted experts to analyse linkages between the two classification systems. Moon and Mills (2010) have compared COFOG and CRS codes for all relevant aid sectors and found that, for agriculture, COFOG is "excessively

aggregated", whereas "no country has as many individually described functions as those in the DAC/CRS".

### Current status

As of October 2014, the IDS/CRS database is active. It is updated on a quarterly basis overall, but data for Africa currently stop in 2012.

### Relevance for policy analysts and policy-makers

The IDS/CRS database is chiefly intended as a global good to be used for analysis. With respect to ODA, the IDS/CRS database is used by a variety of development stakeholders to conduct research on the level and composition of aid.

IDS/CRS data will be relevant for policy-making:

- As an internationally recognized source of comparable, time-series indicators on aid that can be used to conduct research by the Ministry of Agriculture's policy analysis unit or a similar unit, and by the Ministry of Finance;
- As a tool to compare the level of budgeted aid for agriculture reported by OECD countries and the level of aid effectively committed at the country level;
- As an example of an effective public expenditure monitoring and analysis system using a common methodology for all countries that are covered,

While knowing that:

- The IDS/CRS does not include African government expenditures;
- PEA IDS/CRS data are rather aggregated and do not follow the COFOG classification system;
- PEA IDS/CRS data, in Africa, are not updated yearly. They currently stop in 2012;
- The IDS/CRS data are maintained at the OECD headquarters and do not involve country-level work or capacity building.

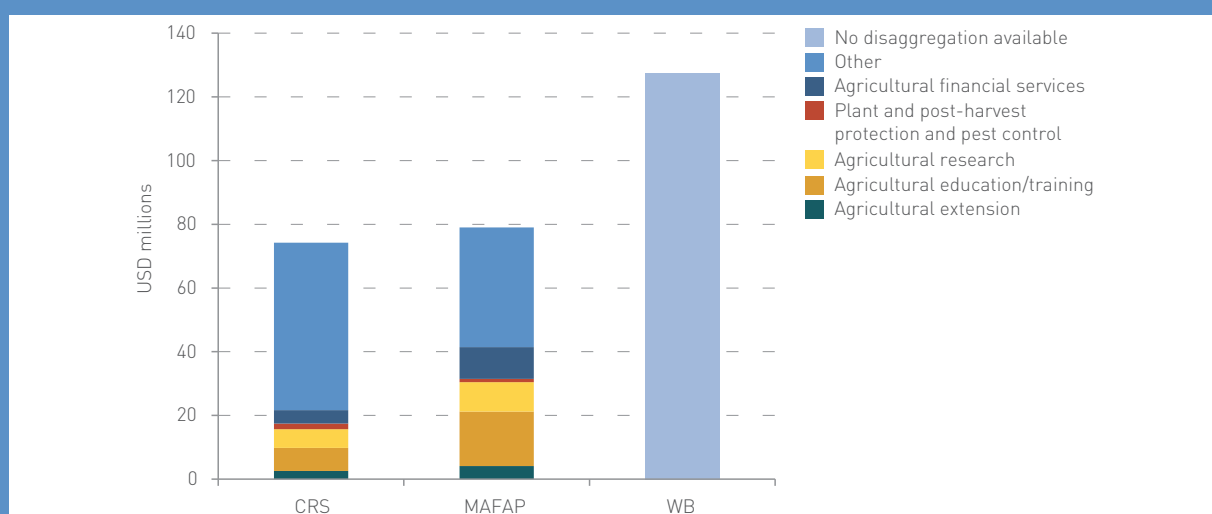
Figure 7 provides a graphical assessment of the orientation of IDS/CRS as a PEA monitoring and analysis initiative, following four criteria. The core of the initiative consists in curating a database. However, it also offers qualitative information and is strongly supportive of the aid efficiency agenda, hence its analytical orientation

#### BOX 4. DONOR SPENDING LEVEL AND COMPOSITION IN GHANA

In Ghana, three initiatives offer explicit access to information on donor expenditures for recent years: the OECD IDS/CRS database, a World Bank AgPER and MAFAP. Total donor expenditure amounts for the 2006–2011 period, together with a disaggregation of spending as calculated by MAFAP and CRS, are reported in the figure below.<sup>1</sup> Again, the data

OECD IDS/CRS data were not collected at the country level. It was classified following the OECD DAC's methodology (see IDS/CRS section on p. 19, above). OECD CRS data are lower than MAFAP's. One may assume that, at the country level, donors overspent compared with the budgeted aid reported to the OECD. The allocation of donor expenditure measured

#### DONOR EXPENDITURES TOWARDS THE AGRICULTURE SECTOR IN GHANA, ACTUAL SPENDING, AVERAGE 2006–2011\*



Source: MAFAP (2014b), World Bank (2013a), OECD (2014b).

\*computed on the basis of figures expressed in millions of constant 2006 USD

provided by the three initiatives are different. As mentioned in Box 1, these disparities arise from differences in the nature, objectives, scope and method across initiatives, together with inevitable data collection issues.

MAFAP contacted major donors in Ghana directly to collect their respective agriculture expenditure data, as it was identified that most donor PEA was off budget. These donors include bilateral as well as multilateral organizations, such as the World Bank or the World Food Programme. Data were classified according to the MAFAP methodology (see MAFAP section, p. 24), which involves bottom-up aggregation of public expenditures from projects and programmes into sub-sector categories (research, irrigation, etc.).

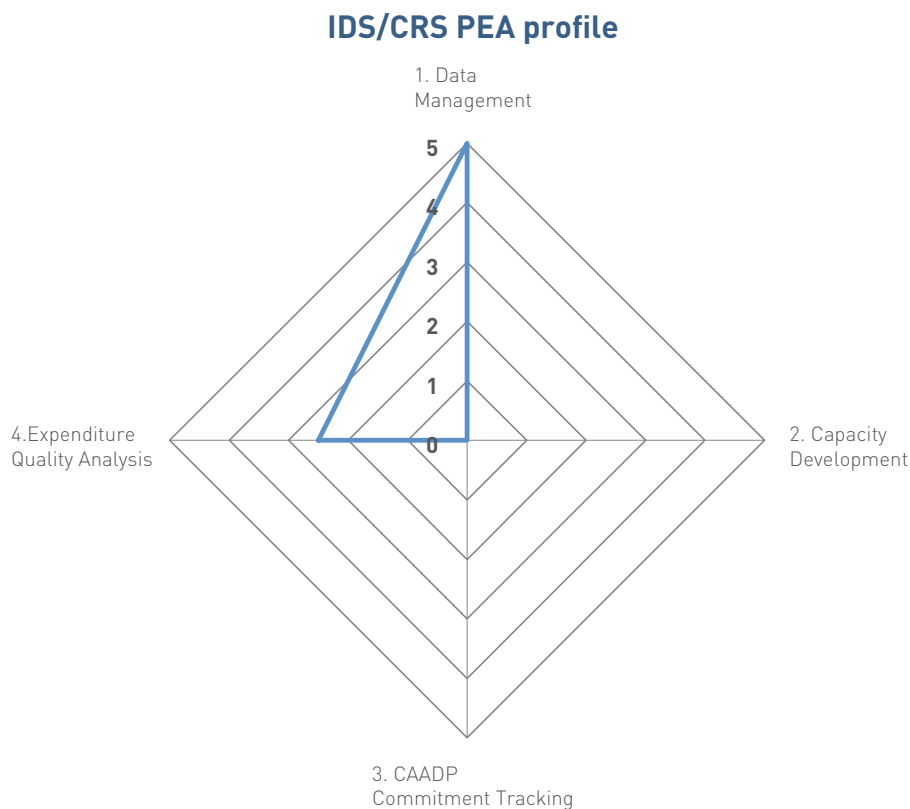
<sup>1</sup> The selected MAFAP categories were mapped to CRS codes to obtain a comparable disaggregation (see correspondence table in Annex 4).

by MAFAP is similar to the OECD's. Variations probably occur as a consequence of the rough matching between CRS and MAFAP categories.

The World Bank cites the Ministries of Agriculture and Finance as the main data sources for its total donor PEA amount. This amount is 30 per cent higher than MAFAP's, a striking discrepancy given that the World Bank appears to have captured fewer off-budget expenditures. An explanation may lie in the methodologies used to measure PEA: the World Bank used the COFOG system, whereas MAFAP used its own methodology.

The discrepancies between the figures reported show, once again, the importance of good coordination between various initiatives but also good understanding of their primary aim and corresponding methodology by policy-makers who would want to use the data generated.

FIGURE 7. ORIENTATION ASSESSMENT OF THE IDS/CRS PEA MONITORING AND ANALYSIS INITIATIVE



*Source: Authors*

## Government Expenditure on Agriculture (GEA) database

### Nature and objectives

FAO maintains the Government Expenditure on Agriculture (GEA) database. It was launched in 2012 and seeks to provide time-series of data on the total and relative level of PEA, worldwide. GEA forms part of the broader mandate of FAO to make information available on investment in agriculture (credit to agriculture, foreign direct investment, official development assistance, remittances). GEA is also intended to support tracking of the Maputo target, a role attributed to FAO in the AU/NEPAD Guidance Note for agriculture expenditure tracking systems (paragraph 1.3, AU/NEPAD, 2005). The GEA database is hosted on the FAOSTAT website and provides an extensive range of indicators on government expenditure on agriculture, following the GFS definitions.

### Scope

The GEA database covers 134 countries, including 33 African countries, for a period spanning from 2001 to

2012, for actual expenditures. Indicators include total government PEA in local currency, in USD, in constant 2005 USD prices, in constant 2010 USD prices, as percentage of total government expenditures (outlays) and as a percentage of agriculture value added. Indicators also include a breakdown of PEA in public expenditures on agriculture, forestry, fishery and hunting, environmental protection, and agricultural research and development. The GEA database does not include official development assistance, although FAO does intend to publish data on ODA to agriculture in the near future. ODA data are reported following the CRS classification system. FAO is therefore working on a matching system that would allow for mapping of ODA to agriculture with GEA data.

### Method

GEA follows the methodological framework of the IMF's Government Finance Statistics Manual (2001) to collect and classify its PEA data. Data are therefore collected through surveys sent to countries' relevant contact points, oftentimes in the Ministry of Finance or Ministry

of Agriculture. Whenever countries do not respond to the survey sent by FAO, data collected by the IMF itself are used, while for a certain number of countries the FAO surveys are included in IMF data collection. Overall, 51 percent of GEA data collected currently come from the IMF, while 35 percent were collected from country contact points and 12 percent jointly by the IMF and FAO (FAO, 2014, internal presentation).

The GEA classification of PEA follows the COFOG system, as outlined in the IMF's GFS. The COFOG category set used by GEA to measure total PEA is, however, different from the one recommended by the AU/NEPAD. The categories that can be considered compatible with the AU's COFOG-based definition are Agriculture (70421), Forestry (70422), Fishing and Hunting (70423) and R&D Agriculture (70482). GEA also includes Protection of Biodiversity and Landscape (7054) and R&D Environmental Protection (7055), which are not mentioned in the AU's Guidance Note of 2005 (AU/NEPAD, 2005). Some expenditures corresponding to these categories are mentioned in the draft of the updated Guidance Note (AU/NEPAD, 2014), although it is not clear to which exact COFOG categories they correspond (see Box 1).

Recurrent and capital expenditures are requested in the surveys (shared in Annex 5). GEA expenditures are a consolidation of general government expenditures, public nonfinancial corporate expenditures and public financial corporate expenditures. Consolidation entails "the elimination of all intra and intergovernmental flows within a country, and all debtor-creditor relationships among the units being consolidated" (IMF, 2004). General government expenditures themselves are a consolidation of central, state and local government expenditures. Finally, central government expenditures are a consolidation of budgetary, extra budgetary and social security funds expenditures.

The expenditures reported by GEA are actual expenditures. They do not include budgeted expenditure. GEA data strictly include government expenditure: official development assistance is not counted.

### Current status

As of December 2014, GEA is active. GEA data are, however, unavailable for some African countries for years after 2010 or 2011.

### Relevance for policy analysts and policy-makers

GEA data will be relevant for policy analysts and policy-makers seeking to:

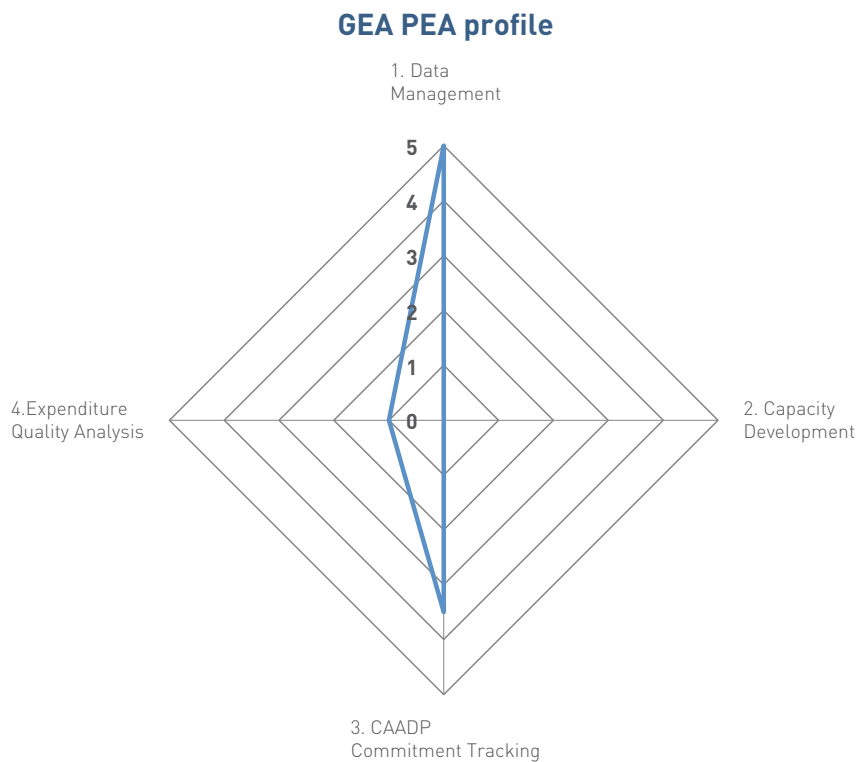
- Compare the level of PEA in a country with other countries worldwide, over time;
- Cross-check the progress of a country, and other African countries, towards the Maputo target with a source other than ReSAKSS. ReSAKSS and GEA are the only initiatives that provide the total level of PEA and the share of PEA within total public expenditure over time and across a large number of African countries,

While knowing that:

- GEA does not use, so far, the exact set of COFOG categories recommended by the African Union. It includes more categories. However, with the exception of hunting, GEA categories do match the core set of COFOG categories referred to in the draft update of the AU/NEPAD Guidance Note.
- GEA data focus on the level of PEA, although expenditures are broken down by COFOG sub-categories of the agriculture sector (agriculture, forestry, fisheries and hunting, agricultural R&D, environmental protection). This breakdown is not available online as of December 2014;
- GEA data are compiled through surveys and do not involve country-level work or capacity building. The IMF, however, already delivers capacity building to officials in African Ministries of Agriculture, including on GFS and COFOG.

Figure 8 provides a graphical assessment of the orientation of GEA as a PEA monitoring and analysis initiative, following four criteria. The GEA database has extensive geographical coverage and allows for monitoring of core CAADP commitments like the Maputo/Malabo target.

FIGURE 8. ORIENTATION ASSESSMENT OF THE GEA PEA MONITORING AND ANALYSIS INITIATIVE



Source: Authors

## Monitoring and Analysing Food and Agricultural Policies (MAFAP)

### Nature and objectives

MAFAP was launched in 2009 by FAO. The Monitoring and Analysing Food and Agricultural Policies (MAFAP) programme is implemented by FAO, in close collaboration with participating African countries. MAFAP seeks to establish country-owned and sustainable systems to monitor, analyse and reform food and agricultural policies to enable more effective, efficient and inclusive policy frameworks in a growing number of developing and emerging economies.

The monitoring and analysis of PEA is one of the three pillars of MAFAP's work, which uses a methodology derived from the OECD Producer Support Estimate methodology (PSE). MAFAP trains national teams – in most cases established within the Ministry of Agriculture – to collect data and produce time series of PEA disaggregated indicators that are analysed through PEA technical notes and used as inputs for policy-making. The MAFAP PEA indicators and analyses are especially

relevant in guiding the allocation and prioritization of public expenditures directed towards the agriculture sector.

### Scope

Despite being Africa-centred in its early stages, MAFAP can be implemented in any developing country and delivers two sets of PEA outputs. MAFAP country teams, with support from the Secretariat, produce PEA indicators for a time period that currently spans between 2006 to 2013, with small gaps for certain countries. Indicators include the following:

- Total level of PEA, defined as the sum of policy transfers and administrative costs;
- Share of PEA within total national public expenditures;
- Disaggregation of PEA according to MAFAP classification categories. The classification categories are subdivided as related to either agriculture-specific policies or agriculture-supportive policies. The full list of categories is accessible in MAFAP (2013);



- Share of donor and national spending within each MAFAP classification category and in total PEA;
- Share of recurrent and development spending within each MAFAP classification category and in total PEA;
- Budgeted and actual amounts for each MAFAP classification category and for total PEA, for each year;
- Disaggregation of agriculture-specific expenditures by commodity (single, group and all);
- Additional quantitative indicators built on an ad hoc basis from the MAFAP PEA databases (for instance, indicators permitting disaggregation of spending on one commodity into several MAFAP classification categories);
- Qualitative information for each activity within the reported projects and programmes: name of public expenditure measure, data source, responsible ministry or implementing agency, type of budget, loan or grant, detailed description, associated subsector, associated commodity, source of funding, government level and associated MAFAP category.

Indicators are updated by country teams on a bi-annual basis and can be compared between countries and across time. MAFAP teams also produce PEA technical notes that analyse the indicators generated through the MAFAP monitoring system, and derive policy implications.

## Method

MAFAP's PEA monitoring and analysis methodology forms part of the broader MAFAP methodology for monitoring and analysing food and agricultural policies. It was adapted from the OECD PSE methodology, which measures the level of support from OECD Member States to their agriculture sector.<sup>27</sup> As such, MAFAP's PEA data are compatible with its price support data, thus allowing for measurement coherence between input support (policy transfers) and output support (trade and market policies affecting prices).

The MAFAP methodology for PEA is therefore built to help analysts identify precise budgetary transfers to commodities and sub-categories of food and agriculture. It

<sup>27</sup> The exact definition of the PSE indicator is as follows: "the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm-gate level, arising from policy measures that support agriculture regardless of their nature, objectives or impacts on farm production or income" (OECD, 2010b).

captures all expenditure measures that generate explicit or implicit monetary transfers in support of food and agriculture sector development. Monetary transfers towards food and agriculture are thus systematically considered whether they support the agriculture sector directly (e.g. input subsidies), collectively (e.g. research) or indirectly (e.g. rural health).

By contrast, general expenditure measures that target the entire economy are not considered, even if they generate monetary transfers to the agriculture sector. This is the case, for instance, for global vaccination campaigns that occur in rural and urban areas. Also, expenditure measures are classified according to the way in which they are implemented and not on the basis of their objectives or economic impacts (MAFAP, 2013).<sup>28</sup>

The MAFAP classification for PEA has been part of the discussion on the measurement of PEA (see Benin, 2012 or Action Aid, 2013). It is chiefly questioned for its inclusion of "agriculture-supportive expenditures", namely rural health, rural education and rural infrastructure. Although this is a fully relevant question, MAFAP does not seek to define PEA *per se*, but rather to provide policy analysts and policy-makers with the most information possible on the policy support provided to agriculture, whether indirectly or directly. The methodology therefore aims for more rather than less, both in the scope and depth of PEA.

Consequently, the MAFAP methodology and PEA indicators, designed for policy analysis, do not play a role in the discussion on measurement of the Maputo/Malabo expenditure target and the related definition of PEA, an accountability exercise for AU Member States. Instead, MAFAP provides a layer of PEA information that adds to, and goes beyond, COFOG-classified data and data analysis. Indeed, although the COFOG system is certainly

<sup>28</sup> The MAFAP classification of expenses is closer in spirit to the *functional* classification of expenses than to the *economic* one (see Box 1) as it aims to serve analytical purposes (like COFOG – see IMF, 2014, p. 141). However, even if the MAFAP classification of PEA is COFOG-compatible (see below), it is first and foremost a component of the full-fledged MAFAP methodology, aimed at measuring the level of policy support to the agriculture sector. Within MAFAP, expenses are not classified according to the purpose for which they were incurred, but according to the way in which their corresponding policy measure was implemented. Accordingly, MAFAP considers *policy transfers*, that is, the budgetary transfers incurred in the context of activities implemented as a result of a policy measure (e.g. an agricultural development program) as the basic material to be classified. The data on administration costs are collected separately as these are not policy transfers as such (see Komorowska, 2010, p. 14). Hence, the MAFAP PEA classification cannot be fully considered *functional* as it is embedded in a broader analytical methodology and is not primarily a tool to report expenditure data.

very useful for African governments as an accounting tool, and appropriate for rapidly generating comparable indicators on aggregate PEA expenditures, COFOG data are excessively aggregated and cannot respond alone to the needs of policy-analysts and policy-makers regarding the allocation of PEA in their countries. However, the MAFAP programme is currently working on a methodology document that will allow policy analysts and policy-makers to aggregate MAFAP data and map it according to the COFOG categories for the purpose of data comparison. This would support analysts wishing to use MAFAP PEA data to cross-check the Maputo/Malabo target calculation with different sources. This can be seen as an area of complementarity between the PEA work undertaken by MAFAP and the tracking of government expenditure for agriculture in the CAADP context. Furthermore, the MAFAP methodology and data may be used by policy-makers wishing to report on the quality of their countries' PEA, as per the commitment undertaken by Member States in the Malabo Declaration.

As of October 2014, MAFAP PEA indicators are available for nine African countries (Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Tanzania and Uganda).<sup>29</sup> In addition, three public expenditure analyses based on the MAFAP indicators are available online (for Burkina Faso, Mali and Tanzania).

### Relevance for policy analysts and policy-makers

Implementing MAFAP in a country will be very relevant for policy analysts and policy-makers seeking to:

- Access a detailed disaggregation of the level and composition of PEA in the country, based on an extensive range of indicators (see above: categories, commodities, budget/ revised/ actual, donor/ national, etc.);
- Obtain, on the basis of this disaggregation, insight into the trends of spending categories and an analysis of the driving factors behind those trends (projects, policy decisions, etc.);
- Improve capacity in national institutions, especially the Ministry of Agriculture (or equivalent) through the establishment of an institutionalized, reliable and sustainable system for monitoring and analysing PEA in the country;

- Generate a precise set of outputs, whose components are determined in collaboration with the MAFAP Secretariat. The outputs include a PEA technical note produced by a team comprising national experts and members of the MAFAP Secretariat, a PEA database and capacity-building activities (training sessions, workshops, etc.);
- Assess certain effects of policies affecting the agriculture sector through the joint analysis of PEA and price incentives/disincentives in selected value chains. In accordance with the MAFAP methodology, this leads to an evaluation of policy coherence and to the identification of policy reforms to achieve stated development objectives,

While knowing that:

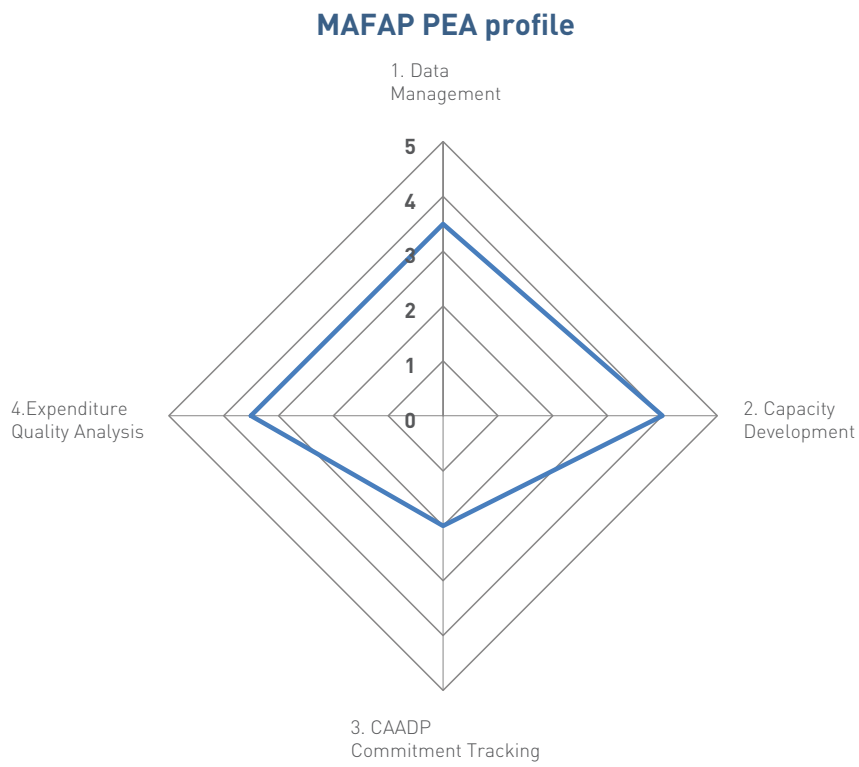
- The MAFAP PEA analyses do not directly seek to monitor the implementation of CAADP (e.g. the commitment to allocate at least 10 percent of total government budget to the agriculture sector);
- The MAFAP PEA monitoring and analysis system cannot replace a standard, administrative PEA reporting system. Indeed, the MAFAP methodology is a tool for policy analysis, which is complementary to the regular work of, for instance, the budget units of the Ministries of Agriculture and Finance, which are accounting activities;
- The country coverage of the MAFAP system, while expanding, is still lower than that of other initiatives (e.g. ReSAKSS or World Bank-supported AgPERs). The MAFAP system aims primarily to establish a PEA monitoring and evaluation system at the national level;
- Although the MAFAP work in a country will certainly improve data management, for example by building capacities or identifying data gaps, the programme is not statistical in nature.

Figure 9 provides a graphical assessment of the orientation of MAFAP as a PEA monitoring and analysis initiative, following four criteria. MAFAP presents a relatively balanced distribution among the four criteria. MAFAP devotes special attention to country-level capacity development, data and analysis. As stated above, the initiative does not aim primarily to monitor CAADP commitments.

<sup>29</sup> See <http://www.fao.org/in-action/mafap/database>, consulted on 27 October 2014.



FIGURE 9. ORIENTATION ASSESSMENT OF THE MAFAP PEA MONITORING AND ANALYSIS INITIATIVE



Source: Authors



# Conclusions and Recommendations

The field of monitoring and analysis of PEA in Africa is composed of eight major initiatives that, however diverse, all have aims related to promoting agricultural, economic and social development in Africa. The way forward, for the latter, has been defined by the African Union in the NEPAD vision and made concrete through the CAADP Results Framework.

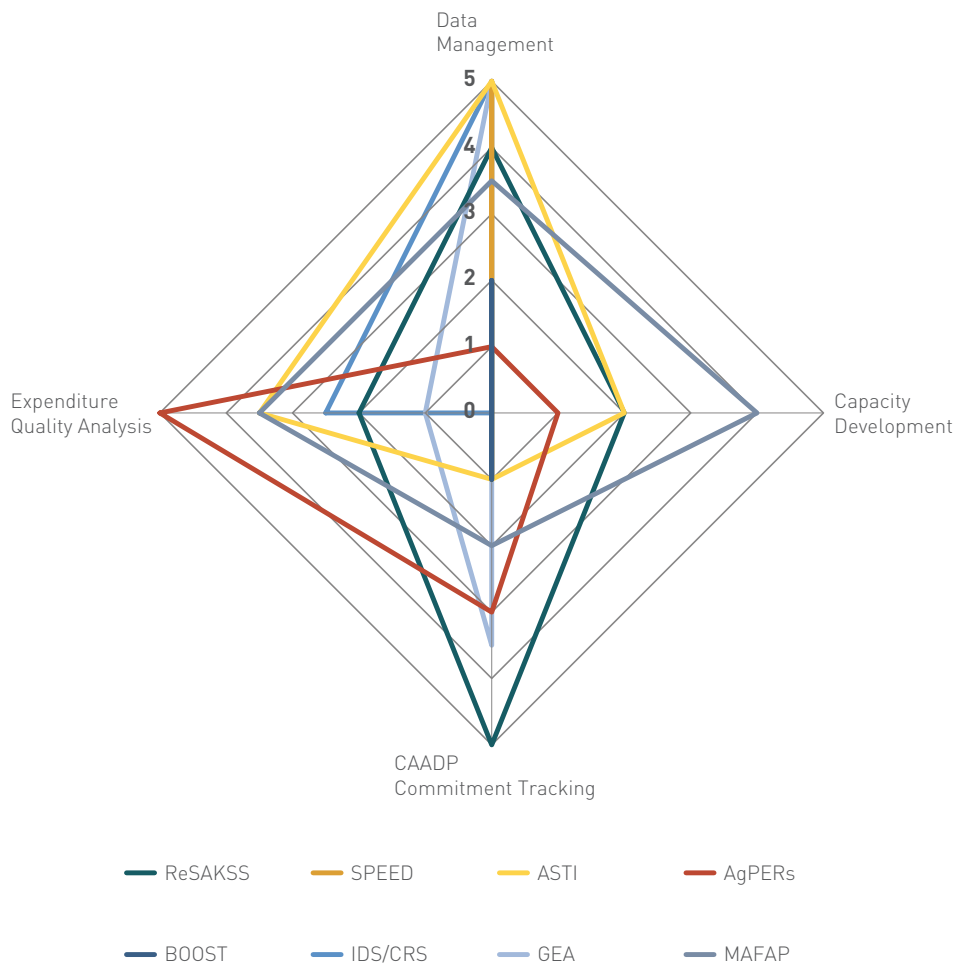
In this context, much of the focus of policy-makers on the aforementioned initiatives has been dedicated to determining which initiative can best measure the Maputo/Malabo 10 percent expenditure target. This report has shown that, across the initiatives, a wide range of definitions and classification methods are used to compute this indicator. The COFOG system has been used regularly, but with inconsistent COFOG category sets. Furthermore, as several African States do not use COFOG, this has also triggered the use of ad hoc expenditure groupings according to the specificities of national accounting systems. In addition, the definition of “total government expenditures”, the other variable in the Maputo target ratio, also varies between the initiatives and remains unspecified. There is no doubt that the NEPAD needs to clarify these points, as the current situation hinders the reliability and comparability of the information produced to track the Maputo/Malabo target, thereby hampering mutual accountability and transparency. Even more important, it is crucial to dispose of reliable and consistent expenditure indicators in order to effectively monitor CAADP implementation.

However, the Maputo/Malabo 10 percent expenditure target is only a tool to achieve a set of development objectives (see e.g. CAADP, 2003 and AU, 2003, 2014). As stated in the 2014 Malabo Declaration, these objectives include the enhancement of investments in agriculture, the acceleration of agricultural growth and agricultural productivity, the boost in intra-African trade of agricultural commodities, poverty reduction, climate change impact mitigation and mutual accountability. Hence, the level of agricultural spending has to be considered, by policy-makers as well as PEA practitioners and development stakeholders, in combination with the quality and composition of spending and the ability to analyse its impact. In this regard, it is widely recognized that the establishment of country-owned, reliable and sustainable PEA monitoring and analysis systems is essential to support the development of the agriculture sector

through evidence-based policymaking. For instance, the African Union sees evidence-based planning as a core strategy for CAADP implementation (CAADP, 2010), and the United Nations highlight data availability, together with statistical and analytical capacity, as one of the main driving forces enabling policy decisions to be supportive of the Millennium Development Goals (UN, 2014, p. 6-7). In the academic literature dedicated to PEA, the fact that “national governments, especially in Sub-Saharan Africa, have limited budgets and are forced to make difficult funding decisions regarding the provision of social services and the support of agricultural programs” (Allen *et al.*, 2012, p. vi) is regularly flagged, thereby underlining the importance of policy knowledge systems.

In this regard, the present report concludes that there is no one way to monitor and analyse PEA, and that policy-makers should consider each initiative’s contribution to the overall CAADP objectives. Some initiatives focus on capacity building and generation of specific policy evidence at the national level while others provide expertise to improve public financial management systems, or publish aggregated benchmark PEA indicators at the regional or global level. Thus, there is only so much the PEA initiatives reviewed here can do to “harmonize”. The very nature, objective and approach of each initiative define their scope and method. Numbers and indicators may overlap in some cases but they are often the “tip of the iceberg” and rarely indicate the redundancy of two initiatives. This argument is illustrated in Figure 10, which summarizes all eight orientation assessments provided in the present report. While a large share of the initiatives are primarily inclined towards the “data management” dimension (5 out of 8), less than half rank equal to or above the median on “CAADP commitment tracking” or “expenditure quality analysis”. Little attention seems to be dedicated to capacity development. Policy-makers seeking to improve their national capacity to monitor and analyse PEA, and wishing to obtain quality expenditure analyses are thus offered few alternatives. Plenty of resources are however available to produce PEA indicators.

FIGURE 10. GLOBAL ORIENTATION ASSESSMENT OF PEA MONITORING AND ANALYSIS INITIATIVES IN AFRICA



Source: Authors

Although agreeing on a common definition of the agriculture sector is certainly possible for a number of initiatives, it would only be part of the solution to improve PEA monitoring and analysis in Africa. Indeed, all PEA initiatives have struggled to obtain reliable and updatable data to map African PEA to a system like COFOG. It is recommended that the ongoing discussion on “how to measure public expenditure for agriculture” focus not only on the definition of PEA but also on the approach and process adopted to measure it. This report argues that it would be important for African policy-makers, PEA practitioners and development stakeholders to jointly develop country-owned, sustainable public financial management and public expenditure analysis systems. Such systems would generate more reliable and updated data and analysis, and would ultimately result in more efficient public expenditures for sustainable accelerated agricultural growth and reduced

rural poverty. Higher quality and clarity of initiative outputs will also help identify concrete complementarities to be capitalized on.

Shared norms and definitions are, of course, also needed. But it is crucial to further define and strengthen the complementarities among initiatives and to examine how they can individually and also jointly contribute to the development objectives enshrined in African countries’ policy strategies and the CAADP framework.

## Annex 1. Summary of the characteristics of PEA monitoring and analysis initiatives

	Nature and objectives	Scope of PEA-related work	Method	Current status (available outputs)	Relevance for policy-makers
<b>ReSAKSS</b>	<p><b>Facilitating agency:</b> IFPRI, IWMI, in partnership with NEPAD/NPCA.</p> <p><b>Duration:</b> 2006 - (ongoing)</p> <p><b>Objective:</b> support CAADP implementation.</p>	<p>ReSAKSS offers indicators on the share of PEA in total public expenditures/ GDP/agriculture value added (Maputo target), and on PEA composition; research on the relationship between PEA and agricultural growth (6% CAADP objective).</p> <p><b>Geographical scope:</b> all AU Member States.</p> <p><b>Time span of the indicators:</b> from 1990 to most recent year.</p>	<p>Use of secondary sources (SaKSS nodes, surveys, grey literature, SPEED database) that mainly employ the COFOG categories, with variations among sources and countries.</p> <p>Data gaps are filled with estimations.</p>	<p>For 47 African countries: indicators on the share of PEA in total PE/ GDP/agriculture value added, for the 1990-2010 period (with some variations across countries).</p> <p>3 PEA analyses.</p> <p>2 Africa-wide reports on PEA</p>	<p>ReSAKSS allows for production of comparable cross-country indicators on PEA (e.g. to monitor the Maputo target); contributes to the CAADP process through knowledge sharing and policy dialogue; and establishes SAKSS nodes and builds capacity on PEA measurement and analysis.</p> <p>ReSAKSS does not focus on in-depth analyses of PEA composition; does not use a single PEA classification methodology; extensively uses data from secondary sources; and does not focus on capacity building.</p>
<b>SPEED</b>	<p><b>Maintained by:</b> IFPRI</p> <p>Duration: 2010 - (ongoing)</p> <p><b>Objective:</b> provide PEA data as a public good for research and policy analysis.</p>	<p>SPEED offers the following indicators: Total PEA (in real terms), share of PEA in total public expenditures and per capita PEA.</p> <p><b>Geographical scope:</b> in Africa, 39 countries.</p> <p><b>Time span of the indicators:</b> between 1980 and 2010, with some gaps within this time period.</p>	<p>Uses data from the IMF (GFS), WACB, WB, national sources and grey literature.</p> <p>Data gaps are filled with estimations.</p>	<p>SPEED database active and available online. The last update contains data up to 2011.</p>	<p>SPEED data are an internationally recognized source of PEA indicators that can inform policy research; data come chiefly from the IMF.</p> <p>SPEED does not use a common PEA methodology for all countries as different sources of data are used; data are not updated yearly. The SPEED database is curated from IFPRI's HQ and does not involve country-level work.</p>

	Nature and objectives	Scope of PEA-related work	Method	Current status (available outputs)	Relevance for policy-makers
<b>ASTI</b>	<p><b>Led by:</b> IFPRI</p> <p><b>Duration:</b> 2001- (ongoing)</p> <p><b>Objective:</b> provide data trends and analyses on agricultural R&amp;D spending in developing countries (public good). Inform policy dialogue. Build capacity.</p>	<p>ASTI indicators include: Total public expenditure on agricultural R&amp;D, agricultural research staff, agricultural research funding sources, and type of agricultural research.</p> <p><b>Geographical scope:</b> 40 countries in Africa.</p> <p><b>Time span of the indicators:</b> between 1981 and 2010, with gaps depending on the country/category.</p>	<p>ASTI uses the OECD's Frascati Manual (2002), with adaptations in function of country specificities.</p> <p>ASTI typically uses survey forms to collect the required data from research institutes.</p>	<p>ASTI indicators for up to 40 African countries.</p> <p>For 40 African countries, in-depth analyses of R&amp;D expenditure.</p>	<p>ASTI provides detailed data and reports on expenditures for agricultural R&amp;D.</p> <p>ASTI is not, so far, focused on capacity building at the country level. It essentially collects data through survey forms. ASTI data are not updated yearly.</p>
<b>World Bank AgPERs</b>	<p>The World Bank produces AgPERs through 3 channels: SNAPE, PEPPAG and "free-standing" AgPERs.</p> <p>SNAPE <b>duration:</b> 2009 - (ongoing)</p> <p>PEPPAG <b>duration:</b> 2006-2011 (closed)</p> <p>Free-standing AgPERs: on-demand.</p> <p><b>Objectives:</b> SNAPE supports CAADP implementation through PEA reviews.</p> <p>PEPPAG's purpose was to inform national institutions and donors on how to better align PEA with stated development objectives.</p> <p>Freestanding AgPERs are conducted in response to demand from national governments or are undertaken as components of larger public expenditure reviews. Their objectives vary accordingly.</p>	<p>The indicators given in the World Bank AgPERs vary widely. They include total level of PEA and share of PEA in the total budget.</p> <p><b>Geographical scope:</b> SNAPE: Africa-wide.</p> <p>PEPPAG: global (developing countries).</p> <p>Freestanding: global (developing countries).</p> <p><b>Time span of the indicators:</b> SNAPE: 2001-2012, with variations in function of countries.</p> <p>PEPPAG: 2001-2009, with variations in function of countries.</p> <p>Freestanding AgPERs: 1997/98-2005/06 (World Bank, 2008b).</p>	<p>The methods used by the World Bank AgPERs vary widely. AgPER work typically involves creating a counterpart team comprising national and international consultants to produce the study.</p> <p>World Bank AgPERs mostly use the COFOG system as a benchmark, with variations across countries.</p>	<p>7 SNAPE AgPERs, 2 African PEPPAG AgPERs, 1 African freestanding AgPER***.</p>	<p>World Bank AgPERs provide detailed analysis of PEA in a country (focus on financial effectiveness but also on composition analysis based on broad, COFOG-related categories), timely access to analytical information on PEA access to clear policy recommendations.</p> <p>AgPERs are not published regularly. The AgPER process does not explicitly involve capacity-building activities. AgPERs are macro-oriented (no focus on PEA disaggregation). The data included in AgPERs do not feed a single database. AgPERs are not always linked to regional or international strategic frameworks (e.g. CAADP).</p>

	Nature and objectives	Scope of PEA-related work	Method	Current status (available outputs)	Relevance for policy-makers
<b>BOOST</b>	<p><b>Curated by:</b> the World Bank</p> <p><b>Duration:</b> 2010-ongoing)</p> <p><b>Objective:</b> provide information on agricultural spending in the developing world (public good), through user-friendly online data interfaces.</p>	<p>The indicators offered in BOOST follow various classifications (government level, administrative unit, economic classification, etc.).</p> <p>The BOOST data interface contains a mapping tool and allows downloading of comprehensive Excel data files.</p> <p><b>Geographical scope:</b> about 40 developing countries, 3 African countries.</p> <p><b>Time span of the indicators:</b> from 2003 to 2013 for African countries, with variations.</p>	<p>BOOST developed a step-by-step guide to develop a BOOST database in a country, explaining how to format the data to feed the interface.</p>	<p>Comprehensive expenditure datasets for Kenya, Togo and The Seychelles.</p> <p>A data interface integrating a mapping tool for Kenya.</p>	<p>Constructing a BOOST database for a country allows one to assemble all the available public expenditure data in a single Excel file; and develop a web-based interface to access the data (public good).</p> <p>BOOST focuses on data that is already available. BOOST does not involve capacity building, data collection or the unveiling of unexploited data. BOOST does not produce analyses.</p>
<b>IDS/CRS</b>	<p><b>Maintained by:</b> OECD Development Cooperation Directorate</p> <p><b>Duration:</b> 1961-ongoing)</p> <p><b>Objective:</b> maintain an International Development Statistics Database (IDS) as a public good to foster transparency and aid efficiency.</p>	<p>The IDS comprises data from the OECD's DAC annual aggregated database on ODA and other resource flows and from the OECD CRS. The CRS contains quantitative (organized according to the CRS coding system) and qualitative aid data. Data are available by funding country/ agency, recipient, sector activity and project.</p> <p>The aid data are submitted to the OECD, classified with the CRS system.</p> <p><b>Geographical scope:</b> for Africa, 57 countries.</p> <p><b>Time span of the indicators:</b> 1960-2012 (including PEA).</p>	<p>The OECD uses CRS++, a functional accounting classification system that uses codes (similar to COFOG).</p>	<p>As of October 2014, IDS/CRS database is active. It is updated on a quarterly basis overall, but data for Africa currently stops in 2012.</p>	<p>The IDS/CRS database offers: an internationally recognized source of data for policy research; A tool to compare budgeted aid levels from OECD countries and commitments at the country level. It is an effective public expenditures monitoring and analysis system using a common methodology.</p> <p>IDS/CRS does not include national expenditures; rather it is aggregated and does not follow the COFOG classification system. It is not updated yearly and is maintained at the OECD HQ without involving country-level work or capacity building.</p>



	Nature and objectives	Scope of PEA-related work	Method	Current status (available outputs)	Relevance for policy-makers
<b>GEA</b>	<p><b>Maintained by:</b> FAO, hosted by FAOSTAT</p> <p><b>Duration:</b> 2012- (ongoing)</p> <p><b>Objective:</b> provide time-series of data on the total and relative level of PEA, worldwide, as a public good. Track the Maputo target.</p>	<p>The GEA indicators include total government PEA, and PEA as a percentage of total government expenditures (outlays)/agriculture value added.</p> <p><b>Geographical scope:</b> 134 countries, including 33 African countries.</p> <p><b>Time span of the indicators:</b> 2001-2012.</p>	<p>GEA uses the methodology of the 2001 IMF GFS (COFOG). Data are collected through surveys sent to national institutions. Data gaps are filled in with IMF data. For certain countries, FAO surveys are included in the IMF data collection process. The PEA definition used by GEA uses COFOG categories but differs from the definition outlined in the AU 2005 Guidance Note.</p>	<p>As of October 2014, GEA is active but the GEA data are still unavailable, as they have to be verified by FAOSTAT.</p>	<p>GEA data allow one to: compare the level of PEA across countries and over time, worldwide; and cross-check the progress of African countries towards the Maputo target.</p> <p>GEA does not use, so far, the AU definition of PEA; data focus on the level of PEA (some disaggregation based on broad COFOG categories is available); data are compiled through surveys (no country-level work or capacity-building).</p>

	Nature and objectives	Scope of PEA-related work	Method	Current status (available outputs)	Relevance for policy-makers
<b>MAFAP</b>	<p><b>Maintained by:</b> FAO and partner Ministries of Agriculture, Research Institutes</p> <p><b>Duration:</b> 2011-(ongoing)</p> <p><b>Objective:</b> establish country-owned and sustainable systems to monitor, analyse and reform food and agricultural policies to enable more effective, efficient and inclusive policy frameworks in a growing number of developing and emerging economies.</p>	<p>MAFAP country teams, with support from the Secretariat, produce PEA indicators for a time period that currently spans between 2006 to 2013. Indicators include the following: total level of PEA; share of PEA within national public expenditures; disaggregation of PEA according to MAFAP classification categories; share of donor and national spending; share of recurrent and development spending; budgeted and actual amounts; disaggregation by commodity; qualitative information on each project and programme classified</p>	<p>MAFAP's PEA monitoring and analysis methodology forms part of the broader MAFAP methodology for monitoring and analysing food and agricultural policies. It was adapted from the OECD PSE methodology, which measures the level of support from OECD Member States to their agriculture sector.</p> <p>MAFAP does not seek to define PEA per se, but rather to provide policy analysts and policy-makers with the most information possible on the policy support provided to agriculture, whether indirectly or directly. The methodology therefore aims for more rather than less, both in the scope and depth of PEA.</p>	<p>PEA datasets and technical notes for nine countries. The datasets will be updated in 2015 and the technical notes in 2016, four more countries will be covered.</p>	<p>MAFAP allows one to: access a detailed disaggregation of the level and composition of PEA in the country; obtain, on that basis, insights into the trends of spending categories and the driving factors behind those trends; improve capacity in national institutions, especially the Ministry of Agriculture, on policy monitoring and analysis; generate indicators and PEA technical notes providing evidence for policy making; assess certain effects of policies affecting the agriculture sector through the joint analysis of PEA and price incentives.</p> <p>MAFAP does not directly seek to monitor the implementation of CAADP, especially the 10 percent Maputo target. The MAFAP system cannot replace a standard, accounting PEA reporting system. It is an analytical tool. MAFAP aims primarily to establish PEA monitoring and analysis systems at national levels (the regional level being a secondary objective). MAFAP is not a data collection, statistical programme in nature.</p>

## Annex 2. Orientation assessment of the initiatives for PEA monitoring and analysis: methodology

The present document has assessed the orientation of PEA initiatives towards specific dimensions of PEA monitoring and analysis. The orientation is considered as the convergence of the initiatives' nature, objectives, scope, method and current status towards a given dimension. The dimensions are: data management, capacity development, CAADP commitment tracking, and PEA quality analysis. Each dimension is sub-divided into two criteria.

The authors have attributed an orientation grade for each criterion to each initiative. The grade goes from 0 to 5 and the attribution was guided by qualifiers. The grades reflect the authors' estimation of the orientation of initiatives with regards to the criterion. They are therefore qualitative and subjective, although based on the thorough review presented in this document.

TABLE 1. METHODOLOGY USED TO ASSESS THE ORIENTATION OF PEA MONITORING AND ANALYSIS INITIATIVES

Dimension	Criteria	Definition	Qualifiers
<b>1. Data management</b>	1.1 Data collection	Orientation towards the collection of PEA data	Focus on data collection, reliability checks, disaggregation of data (composition and sub national aspects), frequency of data collection, number of indicators
	1.2 Database maintenance	Orientation towards the maintenance of a PEA database	Public availability of a database, frequency of the database updates.
<b>2. Capacity Development</b>	2.1 CB for data collection	Orientation towards capacity development at country level for PEA data collection	Focus on the development of country-level capacity to efficiently collect PEA data, presence of country-based units, mechanisms for collaborative data collection.
	2.2 CB for database maintenance	Orientation towards capacity development at country level for PEA analysis	Focus on the development of country-level capacity to efficiently analyse PEA data, presence of country-based units, collaborative production PEA outputs.
<b>3. CAADP commitment tracking</b>	3.1 Maputo/Malabo target tracking	Orientation towards the Maputo expenditure target tracking	Mandate and focus of the initiative on the tracking of expenditure with regards to the Maputo expenditure target; appropriateness of the definition of agriculture used with regards to the AU/NEPAD Maputo Target definition
	3.2 Other CAADP commitment tracking	Orientation towards the tracking of non-Maputo target CAADP commitments	Mandate and focus of the initiative on the tracking of expenditure with regards to other CAADP commitments such as the share of GDP invested in agricultural research, and agricultural growth p.a.
<b>4. PEA quality analysis</b>	4.1 Public Financial Management analysis	Orientation towards analysis of public financial management systems	Production of PEA analytical outputs focused on Public Financial Management/technical efficiency of PEA (execution rates, budgetary cycle, PEA reporting...)
	4.2 Public expenditures allocation and policy coherence analysis	Orientation towards the analysis of the prioritization and allocation of PEA and of policy coherence	Production of PEA analytical outputs focused on policy coherence/allocative efficiency of PE (overfunded or underfunded sub-sectors of agriculture, coherence and prioritization with stated policy objectives...)

## Annex 3. COFOG Classification and category sets used or recommended by various initiatives

The COFOG classification system, extracted from IMF's GFS, is given below. Colour dots present the COFOG category sets recommended by the AU/NEPAD (AU/

NEPAD, 2005),<sup>30</sup> labelled "COFOG+" in certain World Bank AgPERs (for instance World Bank, 2013b), and used by FAO's GEA.

<sup>30</sup> This section will be subject to changes as the updated Guidance Note (AU/NEPAD, 2014) is officially published.

FIGURE 11. COFOG CLASSIFICATION AND COFOG CATEGORY SETS USED OR RECOMMENDED BY VARIOUS INITIATIVES

7 Total expenditure	
<b>701 General expenditure</b>	
7011 Executive and legislative organs, financial and fiscal affairs, external affairs	
7012 Foreign economic aid	
7013 General services	
7014 Basic research	
7015 R & D General public services	
7016 General public services n.e.c.	
7017 Public debt transactions	
7018 Transfers of a general character between different levels of government	
<b>702 Defense</b>	
7021 Military defense	
7022 Civil defense	
7023 Foreign military aid	
7024 R & D Defense	
7025 Defense n.e.c.	
<b>704 Economic affairs</b>	
7041 General economic, commercial, and labor affairs	
7042 Agriculture, forestry, fishing, and hunting	■ ■ ■
7043 Fuel and energy	
7044 Mining, manufacturing, and construction	
7045 Transport	
7046 Communication	
7047 Other industries	■ ■
7048 R & D Economic affairs	■ ■ ■
7049 Economic affairs n.e.c.	
<b>705 Environmental protection</b>	
7051 Waste management	
7052 Waste water management	
7053 Pollution abatement	
7054 Protection of biodiversity and landscape	■
7055 R & D Environmental protection	■
7056 Environmental protection n.e.c.	
<b>706 Housing and community amenities</b>	
7061 Housing development	
7062 Community development	
7063 Water supply	
<b>7064 Street lighting</b>	
<b>7065 R &amp; D Housing and community amenities</b>	
<b>7066 Housing and community amenities n.e.c.</b>	
<b>707 Health</b>	
7071 Medical products, appliances and equipment	
7072 Outpatient services	
7073 Hospital services	
7074 Public health services	
7075 R & D Health	
7076 Health n.e.c.	
<b>708 Recreation, culture and religion</b>	
7081 Recreational and sporting services	
7082 Cultural services	
7083 Broadcasting and publishing services	
7084 Religious and other community services	
7085 R & D Recreation, culture and religion	
7086 Recreation, culture and religion n.e.c.	
<b>709 Education</b>	
7091 Pre-primary and primary education	
7092 Secondary education	
7093 Postsecondary notertiary education	
7094 Tertiary education	
7095 Education not definable by level	
7096 Subsidiary services to education	
7097 R & D Education	
7098 Education n.e.c.	
<b>710 Social protection</b>	
7101 Sickness and disability	
7102 Old age	
7103 Survivors	
7104 Family and children	
7105 Unemployment	
7106 Housing	
7107 Social exclusion n.e.c.	
7108 R & D Social protection	
7109 Social protection n.e.c.	

■ AU/NEPAD 2005 COFOG set.  
 ■ World Bank's COFOG +  
 ■ FAO's GEA

Source: AU/NEPAD, 2005; IMF, 2014; FAO, 2013

## Annex 4. Correspondence between selected MAFAP and CRS categories

TABLE 2. CORRESPONDENCE BETWEEN SELECTED MAFAP<sup>31</sup> AND CRS CATEGORIES

CRS categories	MAFAP categories
Agricultural extension	L (extension)
Agricultural education/training	J (technical assistance) + K (training)
Agricultural research	I (agricultural research)
Plant and post-harvest protection and pest control	M (inspection)
Agricultural financial services	B2 (input subsidies – capital)
Food aid/Food security programmes	E (food aid)
[Agriculture, total] - [Agricultural policy and administrative management] + [Food aid/food security programmes]	I. Agriculture-specific expenditure
Note: the correspondence between the CRS "Agricultural financial services" and MAFAP category B2 is not strict since B2 includes, in addition to input subsidies in the form of credit, machinery and equipment, on-farm irrigation, on-farm infrastructure and other capital transfers.	

<sup>31</sup> The full classification table with category labels and definitions used by MAFAP for PEA analysis is given in MAFAP (2013).

# Annex 5. Government Expenditures for Agriculture Survey

The main table of the GEA Excel survey is presented in Figure 12. Note that Figure 12 does not display the full GEA survey.

FIGURE 12. GEA SURVEY SCREENSHOT

Public Sector													
General Government													
Central Government													
	Budgetary	Extrabudgetary	Social Security Funds	Consolidation Column	Central Government <sup>3</sup>	State Governments	Local Governments	Consolidation Column	General Government <sup>4</sup>	Public Nonfinancial Corporations	Public Financial Corporations	Consolidation Column	Public Sector <sup>5</sup>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Functional classification <sup>2</sup>	...	...	...	...	...	...	...	...	...	...	...	...
<b>7</b>	<b>TOTAL OUTLAYS</b>	...	...	...	0.0	...	...	...	0.0	...	...	...	0.0
<b>704</b>	<b>Economic Affairs</b>	...	...	...	0.0	...	...	...	0.0	...	...	...	0.0
7042	Agriculture, Forestry, Fishing, and Hunting	...	...	...	0.0	...	...	...	0.0	...	...	...	0.0
	→ Recurrent				0.0				0.0				0.0
	→ Capital				0.0				0.0				0.0
70421	Agriculture (crops and animal husbandry)				0.0				0.0				0.0
	→ Recurrent				0.0				0.0				0.0
	→ Capital				0.0				0.0				0.0
70422	Forestry				0.0				0.0				0.0
	→ Recurrent				0.0				0.0				0.0
	→ Capital				0.0				0.0				0.0
70423	Fishing and hunting				0.0				0.0				0.0
	→ Recurrent				0.0				0.0				0.0
	→ Capital				0.0				0.0				0.0
7047	Other Industries				0.0				0.0				0.0
70474	Multipurpose development projects of which: irrigation systems				0.0				0.0				0.0
7048	R&D Economic Affairs				0.0				0.0				0.0
70482	R&D Agriculture, forestry, fishing, and hunting				0.0				0.0				0.0
<b>705</b>	<b>Environmental protection</b>	...	...	...	0.0	...	...	...	0.0	...	...	...	0.0
7054	Protection of Biodiversity and Landscape				0.0				0.0				0.0
	→ Recurrent				0.0				0.0				0.0
	→ Capital				0.0				0.0				0.0
7055	R&D Environmental Protection				0.0				0.0				0.0
	→ Recurrent				0.0				0.0				0.0
	→ Capital				0.0				0.0				0.0
	Other, please specify:				0.0				0.0				0.0
	Other, please specify:				0.0				0.0				0.0

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