Data explainer (companion note) for MAFAP's public expenditure database:

Data, definitions, sources and caveats

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Abbreviations and acronyms

Ag	agriculture
AGSUP+CONS	agriculture supportive and consumer transfers
FC	full coverage
FGC	fairly good coverage
NC	no coverage
ND	not distinguished
PE	public expenditure
PC	partial coverage

1. Background on MAFAP data collection

The MAFAP public expenditure (PE) methodology aims to monitor the level and composition of public expenditure on food and agriculture as well as certain rural development expenditures that may indirectly affect agriculture. This type of analysis is important and critical to inform policy making as it has been widely acknowledged that public expenditure is an important tool of fiscal policy that governments can use to achieve their development goals, including agricultural and rural transformation. Recent research focusing on agricultural sector expenditures has confirmed that higher spending on agriculture can lead to improved agricultural outcomes as well as to a reduction in rural poverty. However, research has also shown that the composition of expenditure is crucial, with different spending categories having very heterogeneous impacts.

The importance of agricultural spending has also been recognized at the political level, most notably in the context of the Comprehensive Africa Agriculture Development Programme (CAADP), when, in 2003, heads of state or government in the region committed to spend 10 percent of their budgets on agriculture. This political commitment has indeed created a need for mechanisms and tools for tracking the evolution of public expenditure on agriculture.

By providing regular updates on both the level and the composition of food and agricultural public expenditure, **indicators and analysis built through the MAFAP PE methodology can be used to inform budget allocations as well as monitor compliance with commitments.**

The classification used by MAFAP differs from other initiatives and classifications on numerous aspects , the most important differences being:

1) Definition of agriculture: the definition of agriculture used by the MAFAP method is broader than that of other methodologies such as COFOG, CAADP guidelines, World Bank Agricultural Public Expenditure Reviews. The two main differences are that MAFAP i) includes food and cash-related expenditures to consumers (e.g. school feeding, food aid or food for work programmes, etc.) beyond agricultural specific interventions and ii) tracks also rural expenditures, defined as agriculture-supportive expenditure that indirectly support agricultural development. By excluding these two spending categories from the aggregate values, definition of expenditure on agriculture and related figures become very similar to those presented by other methodologies.

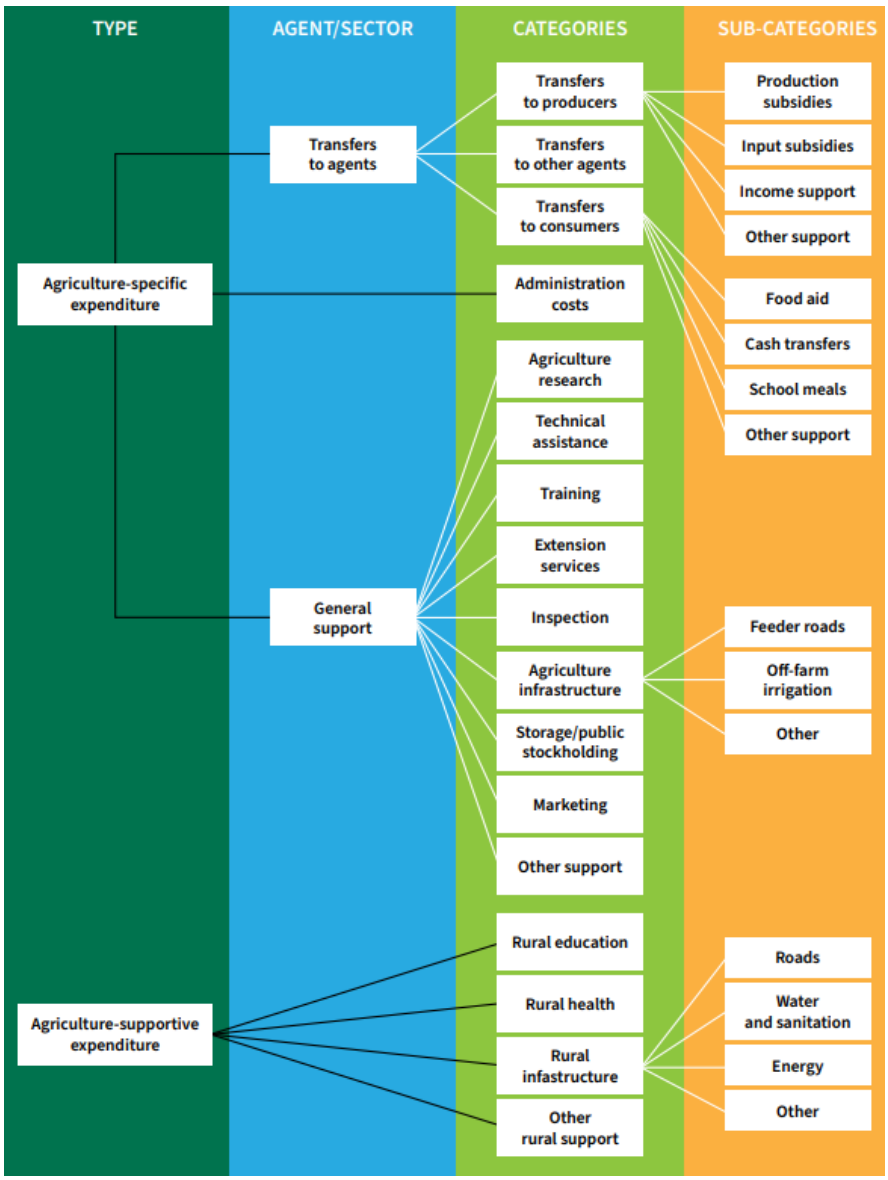
2) Disaggregation by beneficiary: unlike most initiatives and classifications, the MAFAP PE approach categorizes public transfers by targeted agent or beneficiary. As such, it makes a distinction between public expenditures for the provision of private goods (e.g. producer subsidies, subsidies to consumers, payments to input suppliers or traders, etc.), and expenditures used to provide public goods that benefit the sector collectively, such as agricultural research and extension, off-farm irrigation and infrastructure, inspection services.

3) Policy transfers versus administrative costs: the MAFAP method also makes a distinction between administrative costs and 'policy transfers'. Administrative costs include expenditures related to running costs of government institutions, training of government officials, policy documents preparation, whereas 'policy transfers' include all other public expenditures on food and agriculture.

4) Frequency of the update: one key benefit of the MAFAP PE approach is the 'monitoring' aspect: data is updated on a regular basis (yearly in the past, every two years from 2021) and updates are performed in collaboration with government partners that are also trained and involved in almost all steps, from data collection to classification, analysis of the results and policy dialogues around those.

5) Level of disaggregation and detail: the MAFAP classification is more disaggregated than other approaches in terms of mapped categories (types of expenditure), which allows for a more detailed analysis of the composition of public spending on food and agriculture, as shown in Figure 1 and further explained in Appendix 1.

Figure 1. Schematic chart of how MAFAP classifies public expenditure



Source: MAFAP. 2015. *MAFAP Methodology working paper: Volume II. Analysis of Public Expenditure on Food and Agriculture*. *MAFAP Technical Notes Series.* FAO, Rome.

2. Methodology

One of the key objectives of the MAFAP PE approach is to ensure full comparability of indicators across time and across countries. However, data availability and access can vary a lot across these two dimensions. It is therefore important to take data coverage issues into account when analysing ~PE data. For instance, in Mozambique, MAFAP PE analysis includes the full government budget, including agricultural institutions both at central and subnational level, as well as rural expenditure. However, in Rwanda, MAFAP could only access PE data from three key public institutions related with agriculture (i.e. Ministry of Agriculture, Rwanda Agriculture Board and National Agricultural Export Development Board) and therefore the analysis does not include transfers targeting consumers or rural development expenditures. As a result, total expenditure in support of food and agriculture (including all transfers to agents and rural development expenditures) are not comparable for these two countries. The most comparable aggregates between these two countries would be the agricultural-specific expenditures including administrative costs but excluding consumers transfers.

For some countries, donor data are only available for certain years, which hampers the comparability of expenditures over time for the same country. For instance, in the case of Burundi, donor funding data was not accessible for 2011 and 2013. Given the importance of donor contributions to agriculture in Burundi, this means that the level of expenditure in these two years is not comparable to other years.

To facilitate the interpretation and analysis of the PE data and point to the main data coverage issues, Table 1 outlines the current coverage (as well as main sources) of the MAFAP PE data using the following categories:

- Full coverage (FC) – data from all the relevant institutions are covered in the dataset.
- Fairly good coverage (FGC) – data cover institutions that are likely to represent the largest portion of the expenditure.
- Partial coverage (PC) – data from some institutions are included, but other institutions and/or budget items are missing.
- No coverage (NC) – data are not available in the dataset.
- Not distinguished (ND) – data for donor (on-budget) expenditure are included in the dataset are not distinguished from national expenditures.

The data coverage is reported across four types of expenditure in Table 1:

1. Central level expenditures from agriculture ministries (Central - ag ministries);
2. Donor-funded expenditures (on-budget, as specified below);
3. Agricultural-supportive expenditure, rural development programmes and transfers to consumers (bundled under a category named 'AGSUP+CONS');
4. Sub-national expenditures (i.e. expenditure at decentralized level, such as country regions or districts.

Another important caveat in the analysis relates to the fact that in some cases, even when dataset coverage is good and includes also rural or subnational expenditure, certain expenditures categories may be low. This does not necessarily mean that the government is spending little money on these categories. Rather, it may be due to the fact that the structure of the raw dataset does not allow to clearly distinguish the 'rural dimension' of a programme/expenditure line (e.g. distinguishing between health expenditures benefiting rural and urban areas).

Another important coverage issue relates to inclusion of off-budget expenditures. The MAFAP PE dataset includes only on-budget expenditures: therefore, in countries where a large proportion of public spending on food and agriculture is implemented off-budget (usually the case of many donor expenditures), the level of public funding to the sector will be underestimated as off-budget expenditures are not captured

Table 1. Data coverage for Benin

Benin	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Donor	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
AGSUP+CONS	NC	NC	NC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC
Sub national	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Source: Ministère de l'économie et des finances, provided by Ministry of Agriculture (2008–2020).

Table 2. Data coverage for Burkina Faso

Burkina Faso	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Donor	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
AGSUP+CONS	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC
Sub national	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC

Source: Ministère de l'agriculture et des aménagements hydro-agricoles (2005–2016), Ministère de l'économie, des finances et de la prospective (2017–2020).

Table 3. Data coverage for Burundi

Burundi	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Donor	FC	FC	FC	FC	FC	FC	NC	FC	NC	FC	FC	FC	FC	NC	NC	NC
AGSUP+CONS	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Sub national	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC

Source: Ministère des finances, du budget et de la planification économique, provided by the Ministère de l'agriculture et de l'élevage (2005–2017).

Table 4. Data coverage for Ethiopia

Ethiopia	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Donor	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
AGSUP+CONS	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Sub national	NC	NC	NC	PC	PC	PC	PC	PC	PC	PC	PC	FC	FC	NC	NC	NC

Source:

Table 5. Data coverage for Ghana

Ghana	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	NC	NC	NC	NC	NC	PC	PC	PC	PC	PC	NC	NC	NC
Donor	NC	NC	NC	NC	NC	NC	NC	NC	PC	PC	PC	PC	PC	NC	NC	NC
AGSUP+CONS	NC	NC	NC	NC	NC	NC	NC	NC	PC	PC	PC	PC	PC	NC	NC	NC
Sub national	NC	NC	NC	NC	NC	NC	NC	NC	PC	PC	PC	PC	PC	NC	NC	NC

Source: Ministry of Finance and Economic Planning (2013–2017).

Table 6. Data coverage for Kenya

Kenya	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC
Donor	NC	NC	NC	NC	NC	NC	NC	NC	NC	PC	PC	PC	PC	PC	NC	NC
AGSUP+CONS	NC	NC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	NC	NC
Sub national	NC	NC	NC	NC	NC	NC	NC	NC	NC	PC	PC	PC	PC	PC	NC	NC

Source: Ministry of Finance, as provided in the World Bank BOOST dataset (2007–2018).

Table 7. Data coverage for Malawi

Malawi	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Donor	NC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	ND	ND
AGSUP+CONS	NC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC
Sub national	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC

Source: Ministry of Finance, Economic Planning and Development (2006–2020).

Table 8. Data coverage for Mali

Mali	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Donor	NC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	PC	FGC	FGC	FGC
AGSUP+CONS	NC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC
Sub national	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Source: Ministère de l'agriculture, de l'agro-alimentaire et de la forêt (2006–2018), Ministère de l'économie et des finances (2019–2020).

Table 9. Data coverage for Mozambique

Mozambique																
	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC
Donor	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC
AGSUP+CONS	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC
Sub national	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC

Source: Ministério da Economia e Finanças, extracted by Ministério da Agricultura e Desenvolvimento Rural (2009–2019).

Table 10. Data coverage for Rwanda

Rwanda																
	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Donor	NC	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	ND	ND
AGSUP+CONS	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Sub national	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Source: Ministry of Finance and Economic Planning, provided by Ministry of Agriculture and Animal Resources (2012–2020).

Table 11. Data coverage for Senegal

Senegal																
	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Donor	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
AGSUP+CONS	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC
Sub national	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC

Source: Ministère de l'économie, des finances et du plan (2010–2020).

Table 12. Data coverage for United Republic of Tanzania

United Republic of Tanzania																
	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Donor	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
AGSUP+CONS	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Sub national	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC

Source: Ministry of Finance and Planning, as provided in the World Bank BOOST database (2011–2017).

Table 13. Data coverage for Uganda

Uganda	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Donor	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	NC	NC	NC
AGSUP+CONS	FGC	FGC	FGC	FGC	PC	PC	PC	PC	PC	PC	PC	PC	FGC	NC	NC	NC
Sub national	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	FGC	NC	NC	NC

Source: Ministry of Finance, Planning and Economic Development, as provided in the World Bank BOOST database (2005–2017).

Table 14. Data coverage for Zambia

Zambia	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	PC	NC
Donor	NC	NC	NC	NC	NC	NC	NC	NC	NC	ND	ND	ND	ND	ND	NC	NC
AGSUP+CONS	NC	NC	NC	NC	NC	NC	NC	NC	NC	FGC	FGC	FGC	FGC	FGC	NC	NC
Sub national	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Source: Ministry of Finance and National Planning, as provided in the World Bank BOOST database (2014–2019).

Table 15. Data coverage for Zimbabwe

Zimbabwe																
	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Central – ag ministries	NC	NC	NC	NC	NC	NC	FC	FC	FC	FC	FC	FC	FC	NC	NC	NC
Donor	NC	NC	NC	NC	NC	NC	ND	ND	ND	ND	ND	ND	ND	NC	NC	NC
AGSUP+CONS	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Sub national	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Source: Ministry of Finance and Economic Development, as provided in the World Bank BOOST database (2011–2017).

Data for total government budget are key to compute shares of spending (e.g. to track CAADP commitments/Malabo Declaration's 10% target). Sources for total budget data in the MAFAP covered countries are summarized in Table 16.

Table 16. Sources for total public budget data by country

Country	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2022
Benin				Cour Suprême, Chambre des Comptes							Ministère de L'économie et des finances					
Burkina Faso		Ministère de l'Économie, des Finances et de la Prospective														
Burundi		Cour des Comptes/ Banque de la République du Burundi									Banque de la République du Burundi					
Ethiopia			National Bank of Ethiopia													
Ghana									Ministry of Finance and Economic Planning							
Kenya			Ministry of Finance as provided in BOOST database and National Treasury													
Malawi			National Statistics Office and Ministry of Finance											Ministry of Finance		
Mali		Ministère de l'agriculture, de l'agro-alimentaire et de la forêt												Ministère de l'économie et des finances		
Mozambique			Ministério da Economia e Finanças													
Rwanda								Ministry of Finance and Economic Planning								
Senegal						Ministère de L'économie, des finances et du plan										
United Republic of Tanzania						Ministry of Finance and Planning										
Uganda	Ministry of Finance, Planning and Economic Development															
Zambia							Ministry of Finance and National Planning									
Zimbabwe							Ministry of Finance and Economic Development									

Source: Authors' own elaboration.

3. Global database compilation

Individual country databases are compiled in local currency units (LCUs). To facilitate comparisons between countries, MAFAP also generates some additional data series (in USD current and constant, per farm etc.), which are briefly explained in this section. The sources and the numbers used for all the additional data used are provided in Appendix 2.

LCU nominal series – This series is obtained by multiplying the Public Expenditure data by the unit in which the budget is expressed. In many West African countries, for example, the data is expressed in thousands or even millions of LCUs. As such, we need to multiply the data by these units to obtain the LCU nominal series. This is given by the following formula:

$$PELCUN_{it} = PELCUB_{it} * BU_i$$

Where PELCUB represents the Public Expenditure in LCUs in the units as they appear in the budget. BU represents the units in which the budget is expressed.

Current USD nominal data series – In order to make data more comparable, we use the LCU/USD exchange rates to obtain the current USD series. This is done through the following formula:

$$PEUSDN_{it} = \frac{PELCUN_{it}}{XR_{it}}$$

Where the variable XR_{it} represents the LCU/USD exchange rate for country i in year t.

Constant (inflation-adjusted) LCU series – Nominal increases in expenditures in a given country do not necessarily mean that a higher quantity of goods and services can be purchased in a given country. This will also depend on the evolution of price-levels in the country. In order to take this into account, we construct a constant LCU series and the base year used is 2011. In order to construct this series, we proceed in the following way:

We first build a deflator series using the following formula:

$$PEdeflator_{it} = \frac{CPI_{it}}{CPI_{i2011}}$$

Essentially, we use the consumer price index (CPI) as a proxy for the price levels in a given country. We then divide the CPI (CPI_{it}) in a given country by the CPI level in 2011 (CPI_{i2011}).

We then adjust the public expenditure series using the following formula:

$$PELCUIad_{it} = \frac{PELCUN_{it}}{PEdeflator_{it}}$$

Where the adjusted series ($PELCUIad_{it}$) is obtained by dividing the nominal LCU series ($PELCUN_{it}$) by the deflator generated in the previous step.

Constant (inflation-adjusted) USD series – The aim of this series is to provide an idea of the increases in expenditure while keeping prices constant (using 2011 as the base year), expressed in USD. In order to get the series expressed in USD at 2011 prices we divide the inflation-adjusted LCU series by the 2011 exchange rate:

$$PEUSDIad_{it} = \frac{PELCUIad_{it}}{XR_{i2011}}$$

Current PPP adjusted series (current international USD) – The previous series increase comparability between countries by taking into account both local inflation and the differences in exchange rate. However, they do not take into account the fact that the prices of goods and services may be very different across countries. A common way to tackle this is to use a purchasing power parity (PPP) conversion factor. In order to obtain this series, we divide the current USD nominal data series by the PPP conversion factor as follows:

$$PEUSDPPP_{it} = \frac{PEUSDN_{it}}{PPPCF_{it}}$$

Where $PEUSDN_{it}$ represents the nominal public expenditures expressed in USD and the PPPCF represents the PPP conversion factor.

Constant expenditure per farm – As the population of a country is likely to be a determinant of the total public budget, a way to compare more populous countries with less populous countries is to divide the total budget by its rural population. In order to generate this series, we use the total rural population of a country and divide this number by 6 (i.e. we assume that there are, on average, 6 household members in a farm). We then divide the constant PPP adjusted series by this number. Mathematically these steps can be expressed as follows:

$$nfarms = \frac{popru_{it}}{6}$$

Where the popru_it represents the total rural population of a country. We then divide the Constant PPP adjusted series by the number of farms:

$$PEUSDIadpfarm_{it} = \frac{PEUSDIad_{it}}{nfarms}$$

4. Comparability aspects

Given the aspects discussed in previous sections, users of the MAFAP database, should be aware of a number of comparability issues. The main ones are discussed below.

Comparability across time within a country. In general, for most countries, PE indicators are comparable across time in terms of coverage. However, there are exceptions, as also highlighted in Table 1. Notably, Burundi, Ethiopia, Malawi and Zambia and present some coverage issues across the period. For Burundi, donor expenditures are missing in 2011 and 2013. For Ethiopia, the data are comparable for the 2007/08–2014/15 (when there is partial coverage of subnational expenditures) and for the 2015/16–2016/17 subperiods (when there is full coverage of subnational expenditures). However, data across these two subperiods in this version of the dataset are not fully comparable. It is likely that MAFAP will receive additional data for the next update of the PE dataset that will allow a comparison over a longer time period. For Zambia, 2019 indicators are not comparable to previous years, given partial coverage of agriculture expenditures in this last year. For Malawi, subnational expenditures are missing for the pre-2011 period. However, given that they represent a relatively small percentage of the total expenditure, the indicators are still broadly comparable. In addition to this, it should be noted that, since macroeconomic factors within a country (e.g. inflation) can affect the level of expenditure, shares are more comparable than absolute aggregate values over time.

Cross-country comparability. While MAFAP strives to produce PE indicators that are as much comparable as possible across countries, there are two key limitations that may undermine such comparability and should be taken into consideration, namely:

- *Varying quality of information:* in certain countries, raw PE data are broken down at a very disaggregated level and there is good information on most food and agricultural programmes and projects, which allows for a fair classification. In other countries, detailed information is often not available or is 'vague' (e.g. proportion of expenditures spent on different categories may be missing), which necessarily leads to the use of assumptions when classifying data.
- *Subjective biases in the data classification:* while MAFAP continues to improve its internal guidelines to harmonize classification and minimize the issues associated to classification biases, some differences in the way data are classified may persist. In some cases, where project classifications are not clear-cut, some this can lead to biases. In addition, for countries where there is no or little project information or classification is not clear-cut, the analyst is forced to rely more on local knowledge for the classification, which can introduce some further bias and make data less comparable across countries.

In addition to these limitations, users wishing to analyse agricultural-supportive expenditures (those related rural development) should be aware of two additional factors that hamper the comparability between countries for these categories, namely:

- Different data coverage as in some countries, expenditures from ministries other than the ministry of agriculture are only partially captured.
- Distinction between rural and non-rural expenditures proves sometimes challenging. Generally, this distinction is made based on a) project name, b) project documentation, and/or c) geographical markers in the database. However, in many countries, the raw data do not have geographical markers and enough project documentation to disentangle the 'rural' nature of the expenditure. In these cases, MAFAP follows a conservative approach and considers these expenditure as non-rural. This implicitly leads to a bias in favor of countries that either have geographical markers or name of the location in their raw budget data.

Given these limitations on agricultural-supportive expenditure indicators, the most comparable aggregates across countries are agriculture-specific expenditures (excluding payments to consumers) including administrative costs. Consumer-related expenditures also present some issues, as in some countries coverage of social security programmes targeting consumers is partial (see Tables 1–15).

Comparability with other PE monitoring initiatives. As explained above, MAFAP's approach aims at capturing public expenditures on the agrifood sector, including also on rural development. As such, its definition is, by construction, broader than that of other commonly used approaches to monitor PE (e.g. COFOG and African Union Commission guidelines) and total PE reported by MAFAP are likely to be higher. However, agriculture-specific expenditures including administrative costs and excluding consumer transfers, as aggregate, are broadly comparable to the agricultural expenditure estimated by other approaches.

Comparability across PE indicators. As explained in section 3, PE indicators computed by MAFAP are several (e.g. inflation-adjusted, currency-adjusted, PPP-adjusted, *per farm*) to allow stronger analysis and comparability across countries. However, users should be aware of some of the limitations of these indicators, such as:

- The basket of goods that is used to compute the PPP adjustment factor, may not necessarily be a good reflection of the types of goods and services purchased by the government.
- The *per farm* series implicitly assumes that the total rural population is composed of farmers and that the average household is composed of six members. This is a strong assumption to be aware of, when interpreting the results.
- The choice of the base year is likely to have a large effect on the constant dollars series for each country.

Annexes

Annex 1 - Schematic view of MAFAP public expenditure categories

Table A1. Schematic view of MAFAP public expenditure categories

Ag specific or ag supportive	Category	Agricultural agent/sector	Definition
Ag specific	Administrative costs	Sector	This category covers expenditures such as running costs of ministries not tied to a specific category as well as expenditures related to policy formulation and policy coordination.
Ag specific	A. Production subsidies based on outputs	Producer	Monetary transfers to agricultural producers based on output of a specific agricultural commodity.
Ag specific	B. Production subsidies based on outputs	Producer	Monetary transfers to agricultural producers that are based on on-farm use of inputs.
Ag specific	B1. Variable inputs	Producer	Monetary transfers reducing the on-farm cost of a specific variable input. Includes seeds, fertilizer, energy, credit and others.
Ag specific	B2. Capital	Producer	Monetary transfers reducing the on-farm investment cost of farm buildings, equipment, plantations, irrigation, drainage and soil improvements.
Ag specific	B3. On-farm services	Producer	Monetary transfers reducing the cost of on-farm technical assistance and training .
Ag specific	C. Income support	Producer	Monetary transfers to agricultural producers based on their level of income.
Ag specific	D. Non-classified (producer)	Producer	Monetary transfers to agricultural producers individually for which there is insufficient information to allocate them into above listed categories.
Ag specific	E. Food aid	Consumer	Monetary transfers to final consumers to reduce the cost of food.
Ag specific	F. Cash transfers	Consumer	Monetary transfers to final consumers to increase their food consumption expenditure.
Ag specific	G. School meals programmes	Consumer	Monetary transfers to final consumers to provide free or reduced-cost food in schools.
Ag specific	H. Non-classified (consumers)	Consumer	Monetary transfers to final consumers individually for which there is insufficient information to allocate them to the above listed categories.
Ag specific	Payments to transporters	Transporters	Monetary transfers to transporters.
Ag specific	Payments to input suppliers	Input suppliers	Monetary transfers to input suppliers.
Ag specific	Payments to traders	Traders	Monetary transfers to traders.

Ag specific	Payments to other agents	Other agents	Monetary transfers to other agents in the agricultural sector.
Ag specific	I. Agricultural research	Sector	Public expenditures financing research activities improving agricultural production.
Ag specific	J. Technical assistance	Sector	Public expenditures financing technical assistance for agricultural sector agents.
Ag specific	K. Technical assistance	Sector	Public expenditures financing training for agents of the agricultural sector.
Ag specific	L. Extension	Sector	Public expenditures financing the collective provision of extension services.
Ag specific	M. Inspection	Sector	Public expenditures financing control of the quality and safety of food, agricultural inputs and the environment.
Ag specific	N. Agricultural infrastructure	Sector	Public expenditures on agricultural infrastructure.
Ag specific	N1. Feeder roads	Sector	Public expenditures financing feeder roads.
Ag specific	N2. Irrigation	Sector	Public expenditures financing off-farm irrigation.
Ag specific	N3. Other agricultural infrastructure	Sector	Public expenditures financing other off-farm infrastructure.
Ag specific	O. Storage/public stockholding	Sector	Public expenditures financing storage of agrifood products.
Ag specific	P. Marketing	Sector	Public expenditures financing assistance in marketing of agrifood products.
Ag specific	Q. Other	Sector	Other transfers to agrifood sector not classified in categories above. Note: Often includes early warning systems, general forestry and subnational expenditures not tied to a category.
Ag specific	R. Rural education	Sector	Public expenditures on education in rural areas.
Ag specific	S. Rural health	Sector	Public expenditures on health services in rural areas.
Ag specific	T. Rural infrastructure	Sector	Public expenditures on rural infrastructure.
Ag specific	T1. Rural roads	Sector	Public expenditures on rural roads.
Ag specific	T2. Rural water	Sector	Public expenditures on rural water.
Ag specific	T3. Rural energy	Sector	Public expenditures on rural energy.
Ag specific	T4. Other rural infrastructure	Sector	Public expenditures on other rural infrastructure.
Ag specific	U. Non-classified (ag supportive)	Sector	Other public expenditure not classified in the above categories.

Source: Authors' own elaboration.

Annex 2 – Data assumptions used in global database by country

Table A2. Data assumptions for Benin

Benin (BEN)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2008	446.00	0.48	6.43	0.93	5 038 210.00
2009	470.29	0.46	2.54	0.96	5 136 054.00
2010	494.79	0.44	0.88	0.96	5 235 019.00
2011	471.25	0.47	3.73	1.00	5 335 151.00
2012	510.56	0.46	7.70	1.08	5 436 221.00
2013	493.90	0.47	1.40	1.09	5 538 343.00
2014	493.76	0.46	-0.25	1.09	5 640 685.00

Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A3. Data assumptions for Burkina Faso

Burkina Faso (BFA)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2006	522.43	0.37	-0.66	0.79	10 739 874.00
2007	478.63	0.40	2.49	0.81	10 974 632.00
2008	446.00	0.46	9.16	0.88	11 232 645.00
2009	470.29	0.44	2.41	0.90	11 495 273.00
2010	494.79	0.43	3.78	0.94	11 761 179.00
2011	471.25	0.47	6.74	1.00	12 029 916.00
2012	510.56	0.47	5.82	1.06	12 301 337.00
2013	493.90	0.47	-2.13	1.04	12 574 793.00
2014	493.76	0.47	-0.62	1.03	12 849 408.00
2015	591.21	0.38	-2.22	1.01	13 124 763.00
2016	592.61	0.36	2.60	1.03	13 400 386.00
2017	580.66	0.36	1.42	1.05	13 676 524.00
2018	555.45	0.37	1.07	1.06	13 952 831.00
2019	585.91	0.35	1.62	1.08	14 229 032.00
2020	575.59	0.38	6.84	1.15	14 505 412.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A4. Data assumptions for Burundi

Burundi (BDI)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2005	1,081.58	0.27	18.84	0.56	6 674 402.00
2006	1,028.68	0.28	2.85	0.57	6 876 203.00
2007	1,081.87	0.28	8.27	0.62	7 086 696.00
2008	1,185.69	0.31	24.22	0.77	7 303 905.00
2009	1,230.18	0.33	10.46	0.85	7 526 320.00
2010	1,230.75	0.35	8.56	0.92	7 752 348.00
2011	1,261.07	0.37	8.36	1.00	7 980 596.00
2012	1,442.51	0.37	14.29	1.14	8 210 996.00
2013	1,555.09	0.35	7.95	1.23	8 444 885.00
2014	1,546.69	0.35	5.31	1.30	8 685 036.00
2015	1,571.90	0.36	21.32	1.58	8 932 905.00
2016	1,654.63	0.32	0.97	1.59	9 188 748.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A5. Data assumptions for Ethiopia

Ethiopia (ETH)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2007	8.97	0.31	17.22	0.51	67 672 866.00
2008	9.60	0.37	30.31	0.66	69 226 765.00
2009	11.78	0.41	24.15	0.82	70 820 867.00
2010	14.41	0.33	1.44	0.83	72 461 597.00
2011	16.90	0.31	20.06	1.00	74 153 612.00
2012	17.70	0.38	33.54	1.34	75 887 762.00
2013	18.63	0.39	4.90	1.40	77 667 882.00
2014	19.59	0.37	10.98	1.55	79 458 316.00
2015	20.58	0.39	10.84	1.72	81 245 141.00
2016	21.73	0.38	10.40	1.90	83 021 597.00
2017	23.87	0.38	6.68	2.03	84 790 101.00
2007	8.97	0.31	17.22	0.51	67 672 866.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A6. Data assumptions for Ghana

Ghana (GHA)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2013	1.98	0.45	54.01	1.77	12 572 643.00
2014	2.90	0.36	23.94	2.20	12 681 435.00
2015	3.71	0.34	13.25	2.49	12 786 683.00
2016	3.91	0.39	15.75	2.88	12 888 366.00
2017	4.35	0.41	10.68	3.19	12 986 134.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A7. Data assumptions for Kenya

Kenya (KEN)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2007	67.32	0.39	8.13	0.61	30 028 064.00
2008	69.18	0.43	15.15	0.70	30 719 412.00
2009	77.35	0.42	27.70	0.89	31 419 534.00
2010	79.23	0.41	1.64	0.91	32 123 631.00
2011	88.81	0.40	10.07	1.00	32 828 870.00
2012	84.53	0.45	9.52	1.10	33 534 305.00
2013	86.12	0.44	7.34	1.18	34 233 761.00
2014	87.92	0.44	7.64	1.27	34 921 840.00
2015	98.18	0.40	9.24	1.38	35 593 715.00
2016	101.50	0.39	5.85	1.46	36 246 629.00
2017	103.41	0.39	7.58	1.57	36 881 405.00
2018	101.30	0.40	4.22	1.64	37 501 158.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A8. Data assumptions for Malawi

Malawi (MWI)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2006	136.01	0.39	19.97	0.62	11 008 957.00
2007	139.96	0.39	4.10	0.65	11 309 184.00
2008	140.52	0.42	11.96	0.72	11 623 961.00
2009	141.17	0.45	7.90	0.78	11 948 327.00
2010	150.49	0.47	12.13	0.88	12 279 572.00
2011	156.52	0.50	14.08	1.00	12 617 255.00
2012	249.11	0.38	17.66	1.18	12 961 593.00
2013	364.41	0.31	27.30	1.50	13 310 386.00

2014	424.90	0.34	20.88	1.81	13 661 720.00
2015	499.61	0.37	20.53	2.18	14 013 643.00
2016	718.01	0.31	19.54	2.61	14 365 354.00
2017	730.27	0.34	60.99	4.20	14 716 797.00
2018	732.33	0.36	6.13	4.46	15 070 299.00
2019	745.54	0.37	7.73	4.80	15 429 448.00
2020	749.53	0.40	10.20	5.29	15 796 178.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A9. Data assumptions for Mali

Mali (MLI)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2005	527.26	0.32	7.50	0.70	8 679 681.00
2006	522.43	0.33	4.65	0.73	8 868 445.00
2007	478.63	0.36	4.56	0.76	9 062 928.00
2008	446.00	0.41	7.28	0.82	9 258 084.00
2009	470.29	0.41	4.64	0.85	9 448 765.00
2010	494.79	0.40	4.36	0.89	9 631 736.00
2011	471.25	0.46	12.18	1.00	9 805 378.00
2012	510.56	0.44	4.61	1.05	9 971 363.00
2013	493.90	0.44	0.65	1.05	10 133 439.00
2014	493.76	0.44	1.27	1.07	10 296 679.00
2015	591.21	0.37	2.88	1.10	10 464 833.00
2016	592.61	0.36	1.35	1.11	10 638 599.00
2017	580.66	0.37	1.93	1.13	10 816 442.00
2018	555.45	0.38	1.46	1.15	10 997 181.00
2019	585.91	0.36	1.93	1.17	11 178 338.00
2020	575.59	0.37	0.53	1.18	11 358 895.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A10. Data assumptions for Mozambique

Mozambique (MOZ)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2007	67.32	0.39	8.13	0.61	30 028 064.00
2008	69.18	0.43	15.15	0.70	30 719 412.00
2009	77.35	0.42	27.70	0.89	31 419 534.00
2010	79.23	0.41	1.64	0.91	32 123 631.00
2011	88.81	0.40	10.07	1.00	32 828 870.00

2012	84.53	0.45	9.52	1.10	33 534 305.00
2013	86.12	0.44	7.34	1.18	34 233 761.00
2014	87.92	0.44	7.64	1.27	34 921 840.00
2015	98.18	0.40	9.24	1.38	35 593 715.00
2016	101.50	0.39	5.85	1.46	36 246 629.00
2017	103.41	0.39	7.58	1.57	36 881 405.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A11. Data assumptions for Rwanda

Rwanda (RWA)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2012	614.30	0.49	4.72	1.05	8 762 238.00
2013	646.64	0.47	2.69	1.08	8 979 307.00
2014	682.44	0.44	4.73	1.13	9 203 070.00
2015	719.86	0.42	0.49	1.13	9 435 870.00
2016	787.25	0.40	5.03	1.19	9 678 594.00
2017	831.55	0.39	8.16	1.29	9 929 221.00
2018	861.09	0.37	-0.61	1.28	10 184 677.00
2019	899.35	0.35	2.48	1.31	10 440 836.00
2020	943.28	0.36	6.73	1.40	10 694 380.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A12. Data assumptions for Senegal

Senegal (SEN)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2010	494.79	0.48	1.60	0.96	7 128 539.00
2011	471.25	0.51	3.86	1.00	7 274 432.00
2012	510.56	0.48	3.27	1.03	7 424 300.00
2013	493.90	0.50	1.19	1.04	7 577 717.00
2014	493.76	0.49	-1.52	1.03	7 734 305.00
2015	591.21	0.41	1.07	1.04	7 892 481.00
2016	592.61	0.41	0.94	1.05	8 052 117.00
2017	580.66	0.43	0.61	1.06	8 212 348.00
2018	555.45	0.43	-0.84	1.05	8 372 351.00
2019	585.91	0.41	2.06	1.07	8 530 657.00
2020	575.59	0.42	1.49	1.09	8 686 416.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A13. Data assumptions for United Republic of Tanzania

United Republic of Tanzania (TZA)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2011	1,557.43	0.35	12.20	1.00	32 520 460.00
2012	1,571.70	0.41	10.48	1.10	33 175 682.00
2013	1,597.56	0.44	9.67	1.21	33 843 165.00
2014	1,653.23	0.46	6.05	1.28	34 520 751.00
2015	1,991.39	0.40	7.59	1.38	35 205 372.00
2016	2,177.09	0.39	7.47	1.49	35 896 823.00
2017	2,228.86	0.40	2.70	1.53	36 593 461.00
2011	1,557.43	0.35	12.20	1.00	32 520 460.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A14. Data assumptions for Uganda

Uganda (UGA)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2004	1,810.30	0.34	15.59	0.35	22 393 908.00
2005	1,780.54	0.36	-1.74	0.40	22 989 284.00
2006	1,831.45	0.34	2.41	0.41	23 592 895.00
2007	1,723.49	0.36	7.32	0.44	24 208 576.00
2008	1,720.44	0.40	6.36	0.47	24 837 164.00
2009	2,030.49	0.40	85.35	0.87	25 481 309.00
2010	2,177.56	0.39	5.64	0.91	26 142 613.00
2011	2,522.80	0.37	9.39	1.00	26 815 564.00
2012	2,504.56	0.39	3.84	1.04	27 500 431.00
2013	2,586.89	0.40	3.59	1.08	28 213 662.00
2014	2,599.79	0.42	5.11	1.13	28 974 075.00
2015	3,240.65	0.40	5.19	1.19	29 792 913.00
2016	3,420.10	0.35	4.78	1.25	30 678 944.00
2017	3,611.22	0.36	4.65	1.30	31 617 586.00
2018	3,727.07	0.35	4.44	1.36	32 570 632.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A15. Data assumptions for Zambia

Zambia (ZMB)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2014	6.15	0.50	5.44	1.24	9 027 051.00
2015	8.63	0.39	6.66	1.32	9 224 802.00
2016	10.31	0.38	13.55	1.50	9 419 129.00
2017	9.52	0.44	10.10	1.65	9 610 601.00
2018	10.46	0.42	7.41	1.77	9 800 075.00
2019	12.89	0.36	7.63	1.91	9 989 319.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org

Table A16. Data assumptions for Zimbabwe

Zimbabwe (ZWE)					
Year	XR	PPP_ADJ	Inflation	Deflator	Rural population
2011	1.00	0.52	2.55	1.00	8 637 262.00
2012	1.00	0.55	4.03	1.04	8 808 921.00
2013	1.00	0.56	9.37	1.14	8 990 946.00
2014	1.00	0.55	(0.25)	1.13	9 170 486.00
2015	1.00	0.54	0.61	1.14	9 340 770.00
2016	1.00	0.52	2.16	1.17	9 499 100.00
2017	1.00	0.51	2.44	1.19	9 647 147.00

Source: Source: World Bank. 2022. Open Data - Global Development. In: *World Bank*. Washington, DC. 17 July 2022. https://data.worldbank.org