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REVIEW OF THE AVAILABILITY AND QUALITY OF OFFICIAL DATA FROM AFCAS MEMBER COUNTRIES

1. Introduction

The agricultural information system is one of the most important building blocks for the formulation of development plans and policies, aimed at improving the efficiency of agriculture production and distribution of food availability in the world. In this regard, FAO has constantly given a great importance to the collection, processing and dissemination of food and agriculture statistics. The Article I of the FAO Constitution states clearly that "The Organization shall collect, analyze, interpret and disseminate information relating to nutrition, food and agriculture". During the years, the FAO statistics has become a global public good, covering the food, agriculture, forests, fisheries and natural resources statistics for over 200 countries.

In November 2005, FAO endorsed the Principles Governing International Statistical Activities, developed by the Committee for Coordination of Statistical Activities, and thereby expressed its commitment with the principles that "high quality international statistics, accessible for all, are a fundamental element of global information systems" and with the aim to continuously introduce "methodological improvements and systems to manage and improve the quality and transparency of statistics". In this regard, the Statistics Division of FAO has oriented its cooperation and collaboration with the member countries on improving the availability and the quality of the data and ensuring that the key indicators for food security and poverty reduction could be made available for all users, including governments, international organizations, business and the non-governmental and non-profit institutions, universities, etc.

The quality of the data disseminated by FAO is strongly dependent on the completeness, accuracy and comparability of the collected national data. In the recent years, FAO has undertaken actions to increase the national capacity in disseminating the food and agriculture statistics and on harmonizing the concept, definitions and classification with the international standards. In this regard, during 2010 and 2011 FAO Statistics division organized seven regional workshops on collecting, processing and disseminating food and agriculture statistics in collaboration with the FAO Regional Offices and various national partner institutions. 214 national experts from 113 countries of Africa, Latin America, Near East, Asia, East Europe and the Pacific Region

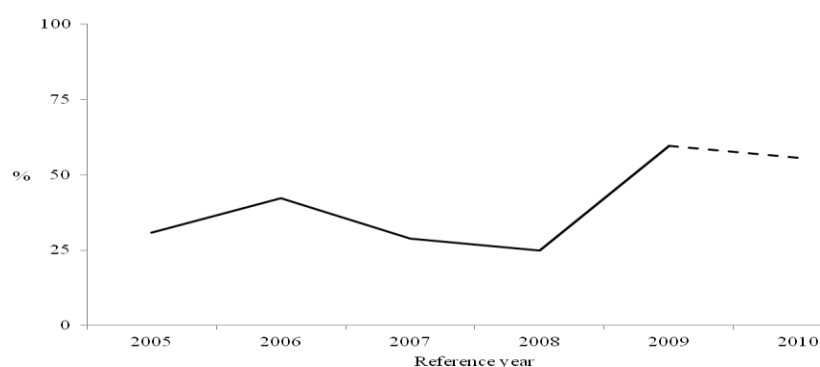
contributed to these workshops. The workshops ultimately served as forums for countries to exchange experiences in collecting and compiling agricultural statistics and to discuss emerging methodological issues. In addition to that, in the current year FAO has intensified the data quality control and new routines for data validation have been put in place. Below, an overview will be given on the availability and quality of the official data collected from the AFCAS member countries.

2. Data on Agricultural Production

2.1. Response to the Annual Production Questionnaire

Each year FAO sends a production questionnaire to all AFCAS member countries and asks the national authorities to report the annual data on the area harvested and production of primary crops, on the number of live animals, production of primary livestock products and derived commodities, as well as on the utilization of main primary crop products. During the period 2006-2010, 43 out of 52 AFCAS member countries replied to the annual production questionnaires (see for more detail Table A1 in the Annex). Apart from Kenya, no other AFCAS member country responded each year to the questionnaire. During the last 6 years, 9 AFCAS countries did not reply to any questionnaire and other 5 countries replied to only one questionnaire. In 2010, 31 AFCAS member countries (response rate of 60%) reported the production questionnaires, which was more than double the response rate in the year before (25%). This could be considered one of the most important feedbacks of the three regional workshops on data collection, processing and dissemination FAO conducted during 2010 for over 75 national experts from African countries. According to the number of the production questionnaire received until October 2011, it seems that this year the response rate reaches the same level as in 2010.

Figure 1. The trend of the response rate to the FAO Production Questionnaire



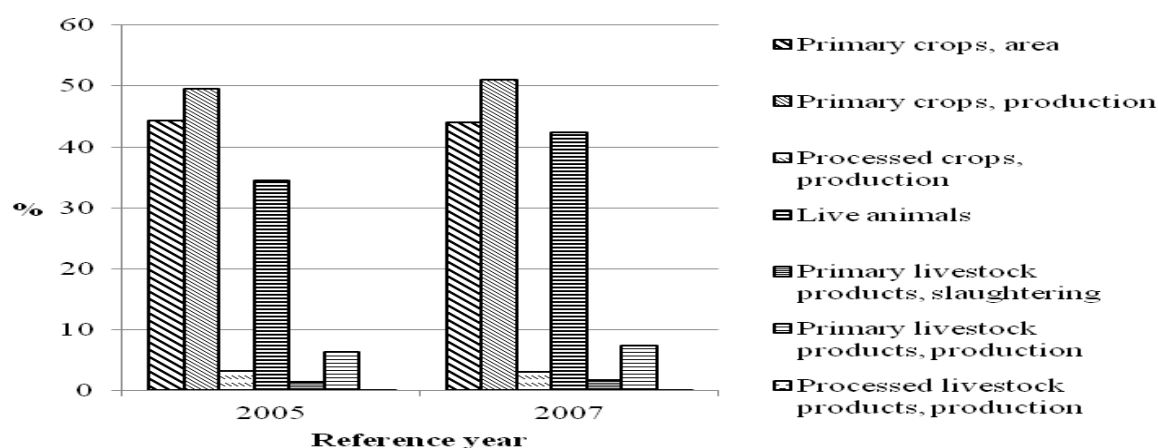
N.B. The collection of the 2010 data has not yet been completed.

2.2. Official-Data Coverage

The Production Questionnaire represents the primary means to obtain high-quality official data. The missing data cells in FAOSTAT database, which cannot be filled with data from the production questionnaire, are updated from other official sources, such as websites and publications disseminated by the national authorities. As complementary statistical sources for updating production statistics and livestock numbers, FAO regularly used various publications disseminated by other international organizations. The data provided by one of the above mentioned sources cover an important part of the food and agriculture production statistics required by the FAO integrated system used for the compilation of food availability at the country level. The missing

(non-reported) data is estimated using automatic statistical techniques or calculation algorithms. The official data reported by countries are crucial for the compilation of supply and utilization indicators, and a monitor system of the level of official data by main agriculture domains or group of items has been implemented. According the monitor system, during the years 2005-2007,¹ about half of the data on primary crops production available in FAOSTAT for AFCAS member countries come from official sources (see Fig.2).

Figure 2. Official-data coverage rate¹ by domain of agricultural production



The official-data coverage rate is calculated as $N_{off} / (N_{off} + N_{semi-off} + N_{est})$, where N_{off} is the number of data cells obtained from official sources, $N_{semi-off}$ is the number of data cells obtained from semi-official sources, and N_{est} is the number of data cells with estimated values.

More details on the share of official data into the total number of FAOSTAT production cells are presented in the Table 2 of the Annex.

Considering the importance of food and agriculture production statistics for the estimation of the food availability at the country level, FAO would like to invite AFCAS member countries to fill the production questionnaire as exhaustively as possible and to assist FAO in its search for any other sources of official or reliable semi-official data. This will help improving the data quality in two ways: firstly by increasing the coverage with high-quality data, and secondly by improving the accuracy of estimations of missing data, as these rely on official data as input.

3. Data on International Trade

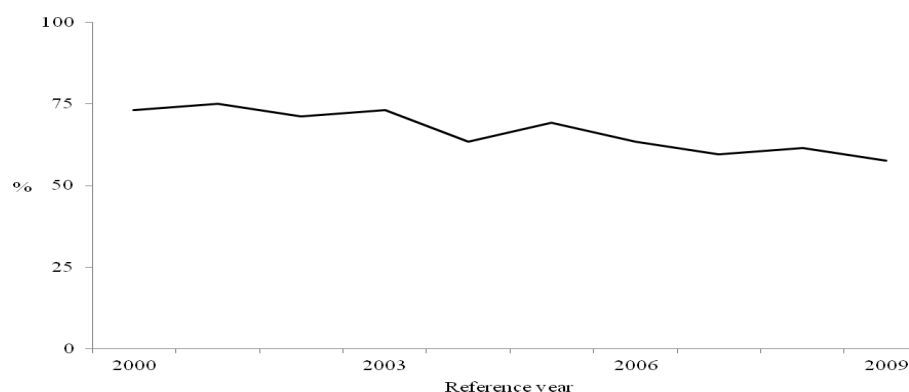
3.1. Collection of the electronic trade data files

The international trade statistics is crucial for the compilation of Food Balance Sheets and estimation of the food availability at the country level. In this regard, FAO Statistics Division has set up, jointly with the United Nation's Statistics Department (UNSD) and with the help of other organizations, such as OECD and EUROSTAT, a data collection system on international merchandise trade statistics including all the countries of the world. The incoming trade files are shared with UNSD in order to reduce as much as possible the duplication of the data collection work. From 2001 to 2010, FAO received valid trade files from 47 AFCAS member countries, which means that only five countries did not submit any valid trade file during that period of time

¹ We chose 2007 as the latest analyzed year, to take account of the fact that some data are submitted by the countries in the data collected rounds in the years t+2 and t+3. These data would not be seen in the statistics for the reference year 2009, but they can be expected to become available later.

(see for more details Table A3 in the Annex). Over the last decade, the trend of the annual response rate to the trade data request sent to AFCAS countries shows a decreasing tendency (see Figure 3).

Figure 3. The trend of the annual response rate to FAO's trade-data requests



The non-reporting countries (Angola, Equatorial Guinea, Guinea Bissau, Lesotho and Liberia) account 3% of the total population of AFCAS member countries in 2009. 15 AFCAS member countries (representing 47% of the total AFCAS population) have regularly reported the requested trade statistics which is a guaranty that there is an important statistics potential in the AFCAS member countries which could be better harmonized with the international data collection systems.

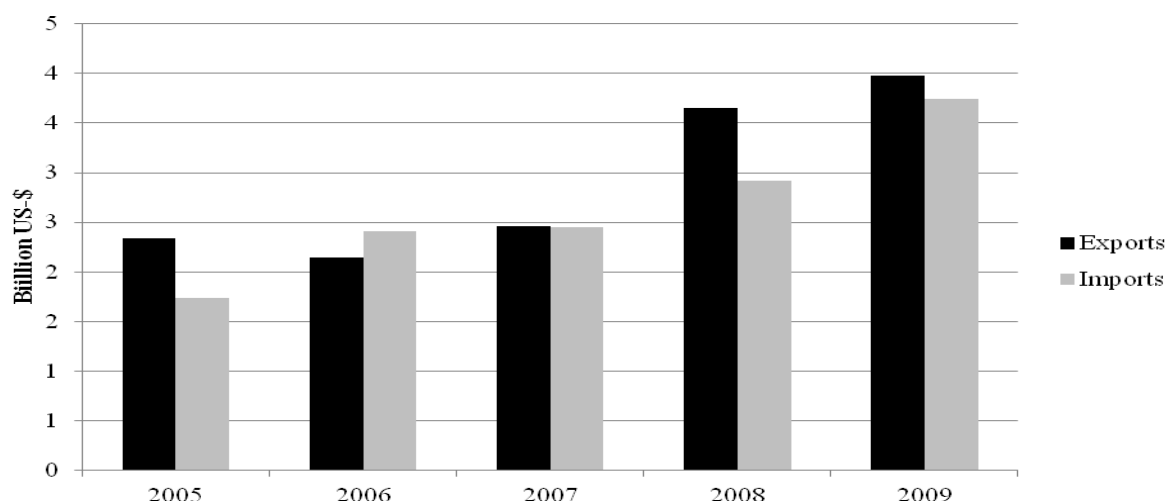
3.2. Trade data quality

The globalization of the trade activity has generated new statistical methods for improving the availability and the quality of the trade statistics at the world level. In this regard, the trade data received from AFCAS countries are important for the estimation of the food availability at the country level and also for the validation of the trading partner data and estimation of the missing data for the non reporting countries. This means that the low quality of the trade data reported by the AFCAS member countries could have a global impact in the availability and quality of the total world trade.

The implementation of the International Merchandise Trade Statistics (IMTS) methodology and the Harmonise system (HS) classification are the base conditions for a good quality trade statistics. Also the traded quantity and the net weight of the imported and exported products are essential in identifying the annual food supply at the country level and estimating the real dimension of the self-sufficiency ratios and import dependency ratios of food and agriculture products. The specific techniques implemented by the FAO Trade Data Processing System, as well as additional analytical activities have identified various data quality problems especially related to the missing net weight quantity, wrong trade quantity and missing unit of measurement (Mozambique: only trade value was reported in the last years, Nigeria, Namibia: unit value statistical discrepancies have been identified) incomplete trade data (Sudan: only import is reported, Guinea: no breakdown by trading partner).

Another frequent data quality issue is related to the inconsistency of the reported data versus partner declarations which requires a special effort on the reconciliation of the reported trade data. An example on that is presented below (Figure 4) based on the official trade data reported by countries. The total value of exports of agricultural commodities from and to the reporting AFCAS member countries is compared with the total value (converted in FAO terms) of the corresponding imports. While the amounts of reported exports and imports are almost equal in 2007 and not profoundly different in 2009 (difference of 6%), remarkable discrepancies can be found for the years 2005, 2006 and 2008.

Figure 4. Agricultural trade among AFCAS member countries according to official figures



N.B.: Values are expressed f.o.b. (free on board). Imports, which are reported c.i.f. (with insurance and freight costs) in the official trade files, have been adjusted assuming insurance and freight costs of 12%.

During the regional workshops on data collection and processing of food and agriculture statistics (in Kenya, September 2010, and Mali, July-2010) the participants from AFCAS member countries underlined some trade data coverage problems especially because in some cases, the data from customs did not cover all imports or there are difficulties in obtaining data on trade quantities using custom declarations. Informal cross border trade of crops and livestock was also mentioned as one of the problems identified during the collection of the trade statistics. In this regard, there is need for institutional collaboration between national offices dealing with trade statistics for validation of data being generated from different sources. In addition to that, the AFCAS member countries are encouraged to develop specific data validation tools on trade statistics in order to improve the quality of annual trade data and to cross-check the reported data with the trade statistics provided by their trading partner for reconciliation of the reported statistics. FAO Statistics Division could facilitate the requested assistance on that.

4. Data for the Compilation of Food Balance Sheets

Food Balance Sheets (FBS) present a detailed picture of a country's food supply for a given period of time. They show in particular the quantities by food item, potentially available for human consumption, as well as the source of food and various utilizations of food products. At the moment the FBS represent the only source of standardized food supply data that allow international comparison over time. The regular compilation of the FBS permits the overall food supply trend analyzes and the measure of the country's potential to meet the nutritional requirements of its population and the import dependency ratio.

The FBS system makes use of production and trade data to estimate the food availability at the country level. The availability of comprehensive and accurate statistics on these items is crucial to the compilation of the FBS. Data on stocks of food items is also an important input into the SUA system. As a first step in the calculation of FBS, the total supply of the agricultural products in a country, as derived from production, exports and changes in stocks, is allocated among different types of uses, one of which is food availability. While the entries on the supply-side can be compiled to a relatively large extent from official values as reported in agricultural production statistics and trade-files, the official data for the utilization-side is rather scarce. This is due to the fact that only a few AFCAS member countries, e.g. Egypt and Kenya, are compiling the FBS at the

country level. FAO-Statistics Division has also assisted some other AFCAS member countries (Gambia, Tanzania, Senegal, Rwanda, Cap Verde) on the implementation of the FAO FBS methodology.

The FBS compilation is a complex activity that requires the involvement of all national data providers in the agriculture system and the FAO recommend to the AFCAS member countries to extend the cooperation between national institutions in order to collect and cross-check the requested data for the compilation of the national FBS.

The AFCAS member countries are also encouraged to implement FBS methodology in their countries in order to create an alternative to the expensive household surveys on food consumption, which are conducted only once in several years. The food availability data for the period between two surveys could thus be derived from national FBS. It would also be useful if the national experts will access the FAOSTAT website where FAO estimations of FBS are made available for the users and to formulate comments and suggestions to improve FAO estimations based on the national practices, country's parameters or conversion factors.

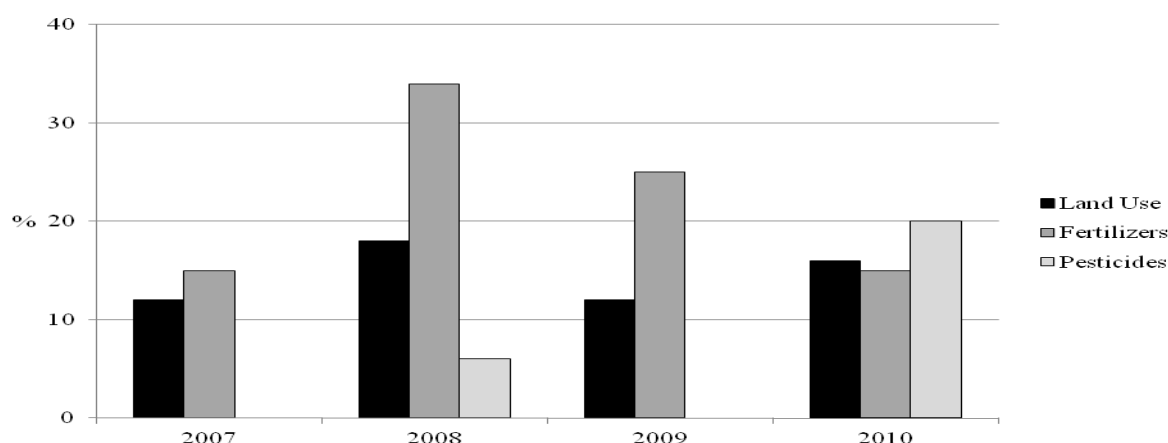
5. Environmental Statistics

FAO annually compiles agri-environmental statistics, disseminated in the module ResourceSTAT, in FAOSTAT, which help analysts and policy makers better understand the nature and magnitude of environmental issues and problems, analyze of the causes and interactions of environmental issues and assess the consequences of policy changes. The agri-environmental statistics cover the databases on land use, pesticides consumption and fertilizers production.

FAO obtains data on *land use* by a variety of institutions. Data come from CSOs, ministries and international organizations. Continuous efforts have been made to improve data quality. The compiled data are aligned with international guidelines on the methodology used by EUROSTAT/UNSD for data collection by countries. For individual countries FAO verifies the coherence with UNSD figures on total country area. From 2007 to 2010 FAO sent the Land-Use Questionnaire to 49 African countries and the response rate fluctuated between 12 and 18% (see Figure 5; for more details see Table A4 in the Annex). In this regard, the FAO Statistics Division should identify the country needs for country capacity building and technical assistance in order to improve the availability and quality of land use statistics.

The primary source of country data on *pesticides use* for FAO is the annual FAO Pesticides Questionnaire which requests data for major groups of pesticides and seed treatments. The data collected from the questionnaires are from official national sources and therefore assume key significance. These are supplemented with information from secondary data sources, such as official country data from websites of national ministries, in order to fill in the gaps, especially when countries do not report. The FAO questionnaire on pesticides was sent out twice to 49 African countries: in 2008 and 2010. After the response to that questionnaire had been very poor in the first data-collection round (3 returned questionnaires), it increased in the second round. However, with 10 returned questionnaires, out of 49 questionnaires sent, the response rate was in 2010 still unsatisfactorily low (see Figure 5; for more details see Table A5 in the Annex).

Figure 5. Response rate to the FAO questionnaires on environmental statistics



As regards data on *fertilizers*, at the national level most government institutions and private sector agencies promote a balanced fertilization supply and usage account, along with other factors related to improving soil fertility for boosting crop yield in order to reduce the level of food insecurity. In the Fertilizer Questionnaire, FAO annually requests from 53 African countries official data on production, trade and use for crop production. The response rate to that questionnaire reached a peak in 2008 (34%) and declined in the following two years. In 2010 only eight (15%) of the contacted 53 countries replied (see Figure 5; for more details see Table A6 in the Annex).

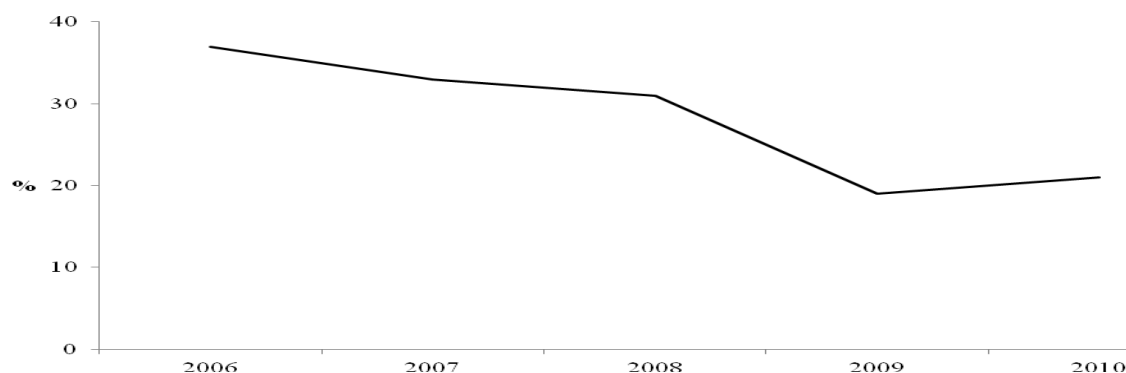
6. Other Economic Statistics

Apart from the statistics on agricultural production and agricultural trade, the Statistics Division compiles additional data which are crucial for understanding the economic interactions on the markets for agricultural commodities and food worldwide. These include data on producer prices, capital stock and expenditure related to agricultural production. The Statistics Division collects these data through questionnaires and other sources, and compiles them as global datasets for analytical use, preparation of reports and dissemination to FAOSTAT.

6.1. Data on Producer Prices

For the compilation of the price statistics, FAO sent its price questionnaire to 52 African countries each year from 2006 to 2010. After in 2006 FAO received responses from around one third of the countries the response rate declined continuously in the following years. The sharpest drop occurred in 2009, from 31 to 19%, and the response rate remained on that level in 2010 (see Figure 6; for more detail see Table A7 in the Annex). This poor response from African countries is indicative of the severe constraints faced by the regions with respect to collection and dissemination of price data. However, it may be taken as a positive sign that 2010 was the first year in which the response rate did not further decline.

Figure 6. Development of the rate of response to the FAO’s price questionnaire



To assess the overall quality of the reported price data, the African countries have been classified into three country groups as presented in Table 1 below.

Table 1. Data quality and coverage assessment report for Africa producers prices, 2002-2010

Africa	Country groups		
	Good coverage and data quality	Limited coverage and good data quality	Poor data quality and coverage
Central Africa	Congo, Rep		Cameroon, Cent. Africa Republic, Chad, Congo Dem.Rep, Eq.Guinea, Gabon, Sao Tome Principe
Eastern Africa	Kenya, Madasgar, Malawi, Mauritius, Mozambique, Ethiopia	Zimbabwe, Rwanda, Somalia, Zambia	Eritrea Burundi, Comoros, Djibouti, Seychelles, Tanzania, Uganda, Mayotte
Northern Africa	Egypt, Morocco	Algeria, Sudan	Libya
Southern Africa	South Africa	Botswana, Namibia	Lesotho, Swaziland Angola
Western Africa	Cape Verde, Ghana, Cote D'Ivoire, Mali, Togo	Guinea, Liberia, Mauritania, Senegal, Burkina Faso	Guinea-Bissau Benin, Gambia,

6.2. Data on Capital Stock

The data on the quantity of physical assets in use and prices disseminated in FAOSTAT are based primarily on information collected from the member countries. These are multiplied by the 2005 (purchasers) price to get estimates of the gross capital stock in agriculture. Additional information comes from a number of sources, such as: country investment project reports; purchase prices of capital such as tractors, harvesters and threshers, milking machines and drought animals; implicit prices from foreign-trade data on livestock, tractors, etc. Supplementary data on GDP at current and constant prices have been obtained from the United Nations Statistics Division (UNSD) and were used for preparing price indices for the individual countries.²

An important part of the capital stocks statistics concerns *machinery and equipment*. The ResourceSTAT-Machinery domain in FAOSTAT covers information on numbers of machinery and

² The development of the FAO Agriculture Capital Stock dataset was also facilitated by the Government of Japan Trust Fund project, “GCP/GLO/267/JPN: Support to Study on Appropriate Policy Measures to Increase Investments in Agriculture to Stimulate Food Production”.

equipment in use as well as imports and exports measured in quantity and value. The primary source of country data on that domain is the FAO Questionnaire on Agricultural Machinery and Equipment annually sent to the countries. Data on import and export quantities and values are obtained from the UN COMTRADE database and sometimes the questionnaires. In the recent years, the response rate to the FAO questionnaire ranged between 12 and 18% (2007: 12%, 2008: 20%, 2009: 12%, 2010: 18%). The data collected from that questionnaires are from official national sources and therefore assume key significance. In order to fill in missing data, especially in cases of non-response, the official data are supplemented with information from secondary data sources obtained from websites of national ministries and publications and from country data reported by international organizations (so-called semi-official sources). In addition, where no other data are available, the country data are complemented by FAO estimates for series which have been collected since 1961.

6.3. Data on Government Expenditure and External Assistance for Agriculture

In the Declaration on Agriculture and Food Security in Africa, issued in July 2003, the Heads of States and Government of African Union committed themselves to make a significant shift in spending priorities by adopting sound policies for agricultural and rural development and to allocate at least 10% of national budgetary resources for the implementation of the priority and bankable projects within five years. FAO Statistics Division has taken the lead in providing the statistics required to monitor progress towards that target. Jointly with the UN, OECD and IMF a database has been set up which shows government expenditure broken down by function or purpose at different levels of government administration. The collection of the source data is conducted by FAO in partnership with the IMF. In 2010, a questionnaire on government expenditure was sent to 52 countries. Responses have been received from ten countries (Angola, Sao Tome, Kenya, Mauritius, Mozambique, Tanzania, Zimbabwe, South Africa, Swaziland and Benin), resulting in a response rate of 19%.

The FAO Statistics Division regularly analyses the data on concessional (Official Development Assistance – ODA) and non-Concessional commitments made by bilateral and multilateral donors to developing countries popularly known as “External Assistance to Agriculture”. The EEA data are disseminated by FAO for the time period from 1992 to the most recent year available. They are obtained from the OECD (as published in the OECD internet home-page), DAC Reports, Annual Reports of the World Bank and data received from other organizations on regional development. Following the data collection and compilation, the data are processed going through series of steps such as, analyses, including systematic checking and verifications at various stages for enhancing the quality of the data. The detailed overview of the investment data on agriculture and rural development are based on reports received for nearly 22 bilateral and 26 multilateral donors respectively for approximately 170 developing countries.

7. Conclusions and Way Forward

The comparative analysis of the countries’ responses to the FAO questionnaires, over the last years, shows that the response rates vary by statistical domain and by geographical sub-region with a maximum world level of 70 % responses to the trade data requests in 2005 and a minimum of 12% to the agri-environment questionnaires, in 2007. The tendency of increasing the availability of food and agriculture statistics, especially for the crops production domains is highly appreciated, and FAO encourages all AFCAS member countries to respond regularly to the FAO questionnaires covering all sections, including the sections on processed products and utilization of primary crops. A special attention should be paid also to the completeness and the quality of the requested data and in this regard both international and national experts should cooperate in order to implement new modern methods and techniques to validate the data and impute the missing information.

Taking into consideration the potential of AFCAS member countries in providing the annual trade statistics and the conclusions of this report, the FAO Statistics Division should intensify its cooperation and collaboration with the national authorities in order to increase the availability and the quality of the food and agriculture statistics and identify new techniques to exchange the processed data and to increase the value added to the original country data. *In this regard* the FAO Statistics Division should actively work together with the national authorities and facilitate the permanent and direct contact with the national statisticians and agriculture experts.

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Annex: Country-Tables

Table A1: Agricultural Production Questionnaires reported to FAO

Country	Data collection round						No. of Questionnaires received	
	2006	2007	2008	2009	2010	2011		
4	Algeria	-	x	x	x	x	-	4
7	Angola	-	-	-	-	x	-	1
53	Benin	-	-	-	-	-	-	-
20	Botswana	-	-	-	-	x	x	2
233	Burkina Faso	-	-	-	-	x	x	2
29	Burundi	x	-	x	-	x	x	4
32	Cameroon	x	-	-	-	-	x	2
35	Cape Verde	-	-	-	-	-	-	-
37	Centr. Afr. Rep.	-	-	-	-	x	x	2
39	Chad	-	x	-	-	x	-	2
45	Comoros	-	-	-	-	-	-	-
46	Congo	x	-	-	-	x	x	3
107	Côte d'Ivoire	x	-	x	-	-	x	3
250	Dem. Rep. Congo	-	x	-	x	-	x	3
72	Djibouti	-	-	-	-	-	-	-
59	Egypt	x	-	-	x	x	x	4
61	Equat. Guinea	-	-	-	-	-	-	-
178	Eritrea	-	x	-	-	x	-	2
238	Ethiopia	x	x	x	-	-	-	3
74	Gabon	-	-	-	-	-	-	-
75	Gambia	-	-	-	x	x	x	3
81	Ghana	-	x	-	-	x	x	3
90	Guinea	-	x	x	-	-	-	2
175	Guinea-Bissau	-	-	x	-	x	x	3
114	Kenya	x	x	x	x	x	x	6
122	Lesotho	x	x	x	-	x	x	5
123	Liberia	-	-	-	-	-	-	-
124	Libya	-	-	-	-	-	-	-
129	Madagascar	x	x	-	-	-	-	2
130	Malawi	-	-	-	-	x	-	1
133	Mali	x	x	x	-	x	x	5
136	Mauritania	x	-	-	-	x	x	3
137	Mauritius	-	x	-	x	x	x	4
143	Morocco	x	x	-	x	x	x	5
144	Mozambique	-	x	-	-	x	-	2
147	Namibia	x	x	-	-	x	x	4
158	Niger	x	-	-	-	x	x	3
159	Nigeria	-	-	-	x	x	x	3
184	Rwanda	-	-	-	-	x	x	2
193	Sao Tome & Princ.	x	-	-	-	-	-	1
195	Senegal	-	x	x	x	x	x	5
196	Seychelles	-	x	-	-	-	-	1
197	Sierra Leone	-	-	-	-	x	x	2
202	South Africa	-	x	x	-	x	x	4
206	Sudan	x	-	x	x	x	x	5
209	Swaziland	-	-	-	-	-	-	-
217	Togo	-	x	-	-	-	x	2
222	Tunisia	-	-	-	x	x	x	3
226	Uganda	-	x	x	x	x	-	4
215	Un. Rep. Tanzania	-	-	x	-	-	-	1
251	Zambia	-	x	x	-	-	-	2
181	Zimbabwe	-	x	-	x	-	x	3
Number of reporting countries		16	22	15	13	31	29	

Table A2: Share of official data in total number of FAOSTAT production cells (%)

Country	Primary crop products				Processed crop products		
	Area harvested		Production		Production		
	2005	2007	2005	2007	2005	2007	
4	Algeria	71	76	71	76	5	5
7	Angola	50	50	50	50	-	-
53	Benin	63	58	63	58	-	-
20	Botswana	-	50	20	50	-	5
233	Burkina Faso	55	50	55	65	5	5
29	Burundi	-	11	16	63	-	6
32	Cameroon	46	26	48	37	-	-
35	Cape Verde	-	11	11	11	-	-
37	Centr. Afr. Rep.	-	33	-	33	-	-
39	Chad	33	17	33	67	6	6
45	Comoros	-	-	-	-	-	-
46	Congo	-	-	-	-	-	-
107	Côte d'Ivoire	70	70	69	69	5	2
250	Dem. Rep. Congo	73	65	77	73	5	5
72	Djibouti	-	-	33	-	-	-
59	Egypt	55	69	55	69	4	4
61	Equat. Guinea	-	-	-	-	-	-
178	Eritrea	76	82	65	88	3	3
238	Ethiopia	76	72	76	76	5	5
74	Gabon	-	-	25	-	-	-
75	Gambia	45	45	45	45	-	-
81	Ghana	50	45	45	45	-	-
90	Guinea	29	29	47	47	-	-
175	Guinea-Bissau	-	50	47	56	6	6
114	Kenya	54	50	72	48	8	8
122	Lesotho	63	88	63	63	-	-
123	Liberia	-	-	-	-	9	8
124	Libya	42	58	42	58	-	-
129	Madagascar	35	-	38	-	5	5
130	Malawi	55	60	52	57	5	5
133	Mali	70	71	70	75	7	-
136	Mauritania	25	31	44	31	14	-
137	Mauritius	70	70	64	64	3	3
143	Morocco	67	67	63	66	-	-
144	Mozambique	-	-	50	61	5	5
147	Namibia	27	36	27	55	-	7
158	Niger	32	42	47	74	5	5
159	Nigeria	68	72	68	64	-	-
184	Rwanda	81	75	81	81	-	-
193	Sao Tome & Princ.	-	-	-	-	-	-
195	Senegal	58	58	58	58	20	20
196	Seychelles	-	-	-	-	-	-
197	Sierra Leone	-	17	17	17	3	3
202	South Africa	54	42	63	54	8	8
206	Sudan	48	67	52	67	-	-
209	Swaziland	14	14	14	7	10	10
217	Togo	63	42	63	47	5	5
222	Tunisia	41	45	50	59	5	5
226	Uganda	80	80	80	80	-	-
215	Un. Rep. Tanzania	38	14	45	34	-	-
251	Zambia	60	-	67	33	-	-
181	Zimbabwe	43	43	41	41	5	5

Table A2, continued

Countries	Animal number		Primary live-stock products Slaughtering		Primary live-stock products Production		Processed live-stock products Production		
	2005	2007	2005	2007	2005	2007	2005	2007	
4	Algeria	50	50	4	13	4	17	-	-
7	Angola	13	25	-	-	-	-	-	-
53	Benin	71	71	-	-	-	-	-	-
20	Botswana	-	44	-	-	-	-	-	-
233	Burkina Faso	-	13	-	-	-	-	-	-
29	Burundi	29	86	-	-	5	5	-	-
32	Cameroon	-	-	-	-	-	-	-	-
35	Cape Verde	-	38	-	-	-	-	-	-
37	Centr. Afr. Rep.	-	-	-	-	-	-	-	-
39	Chad	-	67	-	-	-	-	-	-
45	Comoros	-	-	-	-	-	-	-	-
46	Congo	-	17	-	-	-	-	-	-
107	Côte d'Ivoire	100	100	50	33	39	39	-	-
250	Dem. Rep. Congo	100	80	-	-	28	28	-	-
72	Djibouti	-	20	-	-	-	-	-	-
59	Egypt	-	53	3	12	-	17	-	-
61	Equat. Guinea	-	-	-	-	-	-	-	-
178	Eritrea	-	80	-	22	-	11	-	-
238	Ethiopia	70	80	-	-	-	-	-	-
74	Gabon	-	-	-	-	-	-	-	-
75	Gambia	71	71	-	-	-	-	-	-
81	Ghana	-	71	-	-	17	-	-	-
90	Guinea	63	50	-	-	-	15	20	20
175	Guinea-Bissau	-	38	-	-	-	-	-	-
114	Kenya	78	78	-	-	26	17	-	-
122	Lesotho	75	100	-	-	-	-	-	-
123	Liberia	-	-	-	-	-	-	-	-
124	Libya	-	63	-	-	11	11	-	-
129	Madagascar	50	-	-	-	-	-	-	-
130	Malawi	57	57	-	-	22	28	-	-
133	Mali	78	44	-	-	-	-	-	-
136	Mauritania	14	29	-	-	-	-	-	-
137	Mauritius	-	23	-	-	14	29	-	-
143	Morocco	64	64	-	8	19	23	-	-
144	Mozambique	70	70	-	-	-	-	-	-
147	Namibia	67	56	-	-	-	4	-	-
158	Niger	88	88	-	13	-	13	-	-
159	Nigeria	63	63	-	-	-	-	-	-
184	Rwanda	67	22	-	-	-	-	-	-
193	Sao Tome & Princ.	-	-	-	-	-	-	-	-
195	Senegal	100	100	33	-	48	32	-	-
196	Seychelles	-	-	-	13	6	6	-	-
197	Sierra Leone	50	-	-	-	-	-	-	-
202	South Africa	42	33	17	7	23	12	-	-
206	Sudan	44	56	18	-	22	22	-	-
209	Swaziland	-	-	-	-	-	-	-	-
217	Togo	43	43	-	-	-	-	-	-
222	Tunisia	27	36	4	4	24	24	-	-
226	Uganda	71	71	-	-	6	6	-	-
215	Un. Rep. Tanzania	13	-	-	-	5	5	-	-
251	Zambia	-	-	-	-	-	-	-	-
181	Zimbabwe	30	40	-	-	-	-	-	-

Table A3: Trade-data files submitted to FAO

Country	Reference year										No. of annual data files	
	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09		
4	Algeria	x	x	x	x	x	x	x	-	-	x	8
7	Angola	-	-	-	-	-	-	-	-	-	-	-
53	Benin	x	x	x	x	x	x	-	-	-	-	6
20	Botswana	x	x	-	x	x	x	x	x	x	x	9
233	Burkina Faso	x	x	x	x	x	-	-	-	-	x	6
29	Burundi	x	x	x	x	x	x	x	-	x	x	9
32	Cameroon	x	x	x	x	x	x	x	x	x	x	10
35	Cape Verde	x	x	-	-	-	x	x	x	x	x	7
37	Centr. Afr. Rep.	x	x	x	x	x	x	x	x	x	x	10
39	Chad	-	-	-	-	x	x	x	x	x	-	5
45	Comoros	x	x	x	-	-	-	-	-	-	-	3
46	Congo	-	-	-	-	-	x	x	x	x	x	5
107	Côte d'Ivoire	x	x	x	x	x	x	x	x	x	x	10
250	Dem. R. Congo	x	-	-	-	-	-	-	-	-	-	1
72	Djibouti	-	-	-	-	-	-	-	-	-	x	1
59	Egypt	x	x	x	x	x	x	x	x	x	x	10
61	Equat. Guinea	-	-	-	-	-	-	-	-	-	-	-
178	Eritrea	-	-	-	x	-	-	-	-	-	-	1
238	Ethiopia	x	x	x	x	x	x	x	x	x	x	10
74	Gabon	x	x	x	x	x	x	-	-	-	-	7
75	Gambia	x	x	x	x	-	-	-	x	x	x	7
81	Ghana	x	x	x	x	-	x	x	x	x	-	8
90	Guinea	x	x	x	x	-	-	-	-	x	-	5
175	Guinea-Bissau	-	-	-	-	-	-	-	-	-	-	-
114	Kenya	x	x	x	x	x	x	x	x	x	x	10
122	Lesotho	-	-	-	-	-	-	-	-	-	-	-
123	Liberia	-	-	-	-	-	-	-	-	-	-	-
124	Libya	-	-	-	x	x	-	-	-	-	-	2
129	Madagascar	x	x	x	x	x	x	x	x	x	x	10
130	Malawi	x	x	x	x	x	x	x	x	x	x	10
133	Mali	x	x	x	x	x	x	x	x	x	-	9
136	Mauritania	x	x	-	-	x	x	-	x	x	-	6
137	Mauritius	x	x	x	x	x	x	x	x	x	x	10
143	Morocco	x	x	x	x	x	x	x	x	x	x	10
144	Mozambique	-	x	x	x	x	x	x	-	-	-	6
147	Namibia	x	x	x	x	x	x	x	x	x	-	9
158	Niger	x	x	x	x	x	x	x	x	x	-	9
159	Nigeria	x	x	x	x	-	-	x	x	x	x	8
184	Rwanda	-	x	x	x	-	x	x	x	x	x	8
193	S. Tome & Princ.	-	-	-	x	-	-	-	-	-	x	2
195	Senegal	x	x	x	x	x	x	x	x	x	x	10
196	Seychelles	x	x	x	x	-	x	x	x	-	-	7
197	Sierra Leone	-	-	x	-	-	-	-	-	-	-	1
202	South Africa	x	x	x	x	x	x	x	x	x	x	10
206	Sudan	x	x	x	x	x	x	x	-	x	x	9
209	Swaziland	x	x	x	x	x	x	x	x	-	-	8
217	Togo	x	x	x	x	x	x	-	x	-	x	8
222	Tunisia	x	x	x	x	x	x	-	x	x	x	9
215	U.R. Tanzania	x	x	x	x	x	x	x	x	x	x	10
226	Uganda	x	x	x	x	x	x	x	x	x	x	10
251	Zambia	x	x	x	x	x	x	x	x	x	x	10
181	Zimbabwe	x	x	x	-	x	x	x	-	x	x	8
Number of reporting countries		39	40	38	39	34	37	34	32	33	31	

x: reported trade data electronic file

Table A4. Number of countries responding to FAO Land Use and Irrigation Questionnaire in Africa by region

Region	Number of Countries	2007		2008		2009		2010	
		Replies	Response rate %	Replies	Response rate %	Replies	Response rate %	Replies	Response rate %
Central Africa	8	0	0%	0	0%	1	13%	0	0%
Eastern Africa	16	3	19%	3	19%	1	6%	3	19%
Northern Africa	5	1	20%	3	60%	1	20%	2	40%
Southern Africa	5	0	0%	1	20%	0	0%	2	40%
Western Africa	15	2	13%	2	13%	3	20%	1	7%
TOTAL AFRICA	49	6	12%	9	18%	6	12%	8	16%

Table A5. Number of countries responding to the FAO Pesticide Use Questionnaire in Africa by region

Region	Number of countries	2008		2010	
		Reporting countries	Response rate %	Reporting countries	Response rate %
Central Africa	8	0	0%	2	25%
Eastern Africa	16	1	6%	2	13%
Northern Africa	5	1	20%	1	20%
Southern Africa	5	1	20%	0	0%
Western Africa	15	0	0%	5	33%
TOTAL AFRICA	49	3	6%	10	20%

Table A6. Number of countries responding to FAO Fertilizers Questionnaire in Africa by region

Region	Number of countries	2007		2008		2009		2010	
		Replies	Response rate	Replies	Response rate	Replies	Response rate	Replies	Response rate
Central Africa	9	0	0%	3	33%	1	11%	0	0%
Eastern Africa	17	3	18%	6	35%	5	29%	2	12%
Northern Africa	6	1	17%	3	50%	3	50%	2	33%
Southern Africa	5	0	0%	0	0%	1	20%	0	0%
Western Africa	16	4	25%	6	38%	3	19%	4	25%
TOTAL AFRICA	53	8	15%	18	34%	13	25%	8	15%

Table A7. Number of countries responding to FAO Prices Questionnaire in Africa by region

Region	Total	2006		2007		2008		2009		2010	
		Re-plies	Re-sponse rate %	Re-plies	Re-sponse rate %	Repli- es	Re-sponse rate %	Re-plies	Re-sponse rate %	Re-plies	Re-sponse rate %
Central Africa	8	1	13%	0	0%	1	13%	0	0%	0	0%
East Africa	18	7	39%	5	28%	5	28%	4	22%	5	28%
Northern Africa	6	3	50%	4	67%	4	67%	2	33%	2	33%
Southern Africa	6	1	17%	2	33%	2	33%	1	17%	1	17%
West Africa	14	7	50%	6	43%	4	29%	3	21%	3	21%
TOTAL AFRICA	52	19	37%	17	33%	16	31%	10	19%	11	21%

Table A8. Number of countries responding to FAO Machinery Questionnaire in Africa by region

Region	Number of Countries	2007		2008		2009		2010	
		Reporting countries	Response rate %	Reporting countries	Response rate %	Reporting countries	Response rate %	Reporting countries	Response rate %
Central Africa	8	1	13%	0	0%	0	0%	0	0%
Eastern Africa	16	2	13%	2	13%	1	6%	3	19%
Northern Africa	5	2	40%	2	40%	2	40%	1	20%
Southern Africa	5	0	0%	2	40%	0	0%	2	40%
Western Africa	15	1	7%	4	27%	3	20%	4	27%
TOTAL AFRICA	49	6	12%	10	20%	6	12%	9	18%