



AfricaFertilizer.org

TECHNICAL REPORT

Fertilizer Technical Working Groups 2017 Fertilizer Statistics Validation Workshop Burundi | Ethiopia | Kenya | Rwanda | Tanzania | Uganda



8th – 9th May, 2018 Naivasha, Kenya

AfricaFertilizer.org is a joint initiative led by IFDC, in partnership with AFAP, IFA, FAO, and the Africa Union to facilitate exchange of information about soil fertility, fertilizers and good agricultural practices in Africa



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1 Introduction

1.1 Background of the workshop

CountrySTAT and the AfricaFertilizer.org initiative (AFRICAFERTILIZER.ORG) have partnered with various East African Countries (EAC), since 2013, to improve the accuracy and the availability of comprehensive, detailed national and sub-national statistics on fertilizer production, trade and consumption.

In the recent past, for East and Southern Africa, AFRICAFERTILIZER.ORG only conducted pre-validation workshops for the 3 priority countries i.e. Ethiopia, Kenya and Tanzania. The last joint EAC workshop was conducted in 2015, in Kigali, Rwanda.

In 2018, a joint EAC workshop was conducted in Naivasha, Kenya, bringing together a total of 33 participants from the 5 EAC countries and Ethiopia. The 33 consisted of 28 participants and 5 facilitators.

1.2 Objectives of the 2018 Workshop

The main objectives of this years' workshop was to:

- a) Process and pre-validate 2017 fertilizer datasets on production, imports, exports, apparent consumption for the 3 priority countries- Kenya, Tanzania and Ethiopia;
- b) Pre-validate 2015-2017 fertilizer datasets on imports, exports and apparent consumption for Burundi, Rwanda and Uganda.
- c) Review the 2018 Fertilizer Use by Crop (FUBC) draft reports and templates for Ethiopia, Kenya and Tanzania
Review the FUBC methodology.

1.3 Invited Participants

These consisted of members of the National CountrySTAT Fertilizer Technical Working Groups (FTWG) established since 2012, and officials from various public and private sector institutions handling agricultural data sets-without the CountrySTAT umbrella. Public Sector institutions included: Statistical divisions of Ministries of Agriculture, Fertilizer/agro inputs directorates of Ministries of Agriculture, National Bureaus of Statistics and Customs and Revenue Authorities. While the private sector institutions consisting of fertilizer manufacturers, importers and distributors included representatives from YARA, OCP, Balton, ETG, ITCO, EAGTC, Green Fert and TFC.

Table 1: Total Participants for the Workshop (Public Vs Private Sector)

Country	Total participants	Public sector	Private sector
Burundi	5	3	2
Ethiopia	5	4	1
Kenya	5	4	1
Rwanda	5	3	2
Uganda	5	3	2
Tanzania	3	3	0
Total	28	20	8

1.4 Facilitators/ Organizers

The conference was organized and facilitated by a five member team from the AfricaFertilizer.org initiative. It was led by Grace Chilande, the AFRICAFERTILIZER.ORG Regional coordinator in East and Southern Africa, based in Nairobi, Kenya. Data cleaning and processing was led by Phred Gyasi, Fertilizer Statistics Specialist, based in Accra, Ghana and was assisted by Samuel Ali, Fertilizer Analyst, based in Abuja, Nigeria. Logistics organization was led by Mary Maina, Fertilizer Analyst based in Nairobi, Kenya and was assisted by Viola Kenduiywa, Fertilizer Markets Intern (AFAP) based in Nairobi, Kenya.



Picture 1: Workshop organizers and facilitators

From left, Phred Gyasi, Grace Chilande, Viola Kenduiywa, Mary Maina and Samuel Ali.

2 Workshop Activities

The workshop was opened at 0900H by Grace Chilande. Participants were introduced and objectives highlighted above presented. This was followed by individual introductions from all the 33 workshop participants.

Different country representatives gave updates on the progress on uploading data on the website. Majority of the countries had not uploaded this data on the system and these attributed it to the lack of a budget to facilitate the activities.

2.1 Review of the Africafertilizer.org website

Phred Gyasi then took participants through the Africafertilizer.org website educating them on where different information can be obtained and how to extract fertilizer statistics for different countries from the website. <http://africafertilizer.org/>

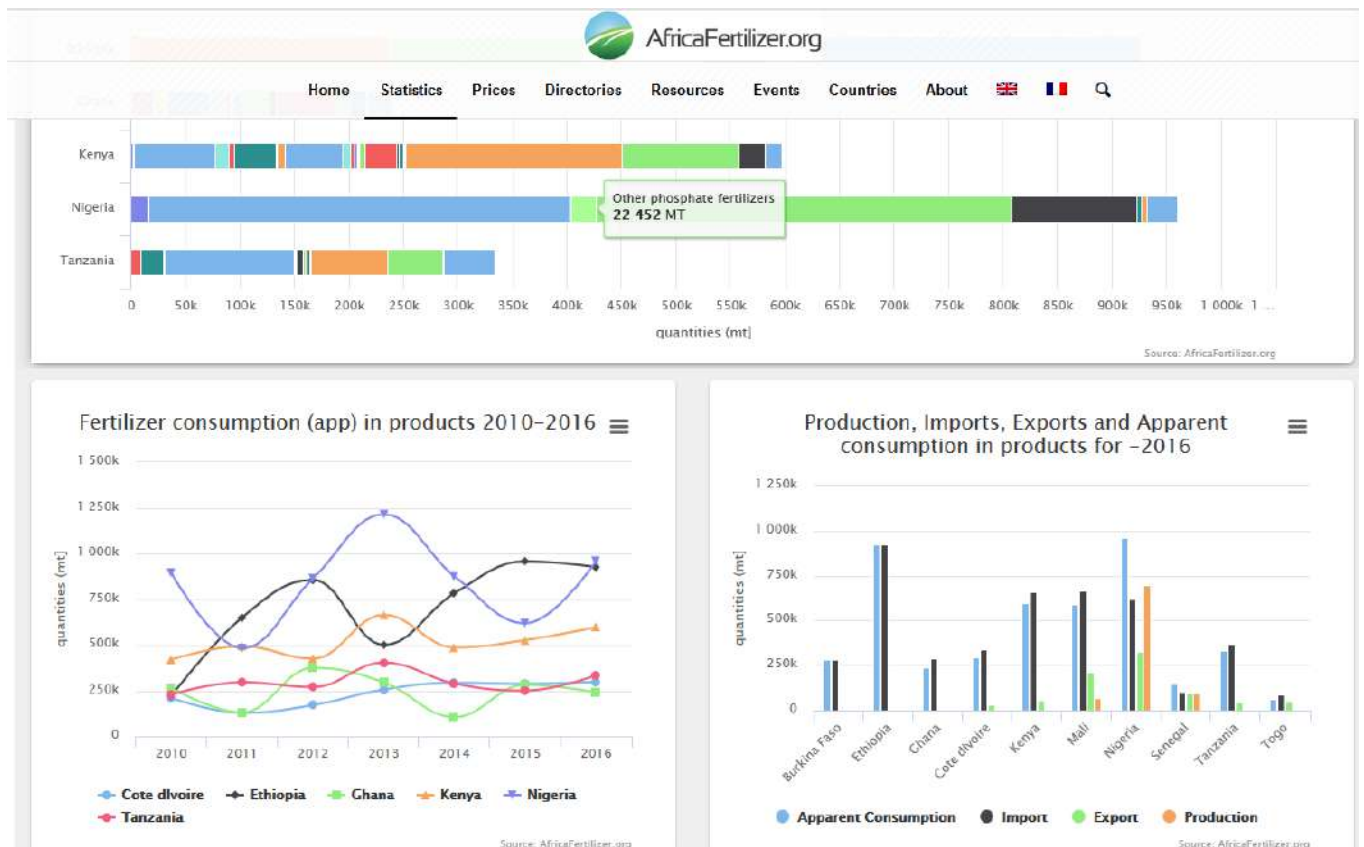


Figure 1: A snapshot of AfricaFertilizer.Org Website

2.2 Review of the CountrySTAT output tables.

Different CountrySTAT tables were then presented. For Kenya, Tanzania and Ethiopia they covered a period from 2013 to 2016 while Uganda, Rwanda and Burundi were for a period 2011 to 2014. In these, statistics were presented on fertilizer production, trade (imports and exports including countries of origin for imports and destinations for exports), fertilizer use, fertilizer consumption statistics and NPK analysis.

Due to data challenges, only apparent fertilizer consumption statistics were included. Real consumption numbers were hard to get as it requires surveys to be conducted -something that is costly to undertake. For details on how different countries are performing on different fertilizer indicators refer to the respective countries' fertilizer statistics summary reports that can be accessed from the AFRICAFERTILIZER.ORG website.

For Kenya, it was noted that the ETG blending plant in Mombasa has already started blending and Fred was to review the 2016 export table for product by destination for the other fertilizers to add up to 100%

2.3 Review of datasets for processing and Group Work

The participants organized themselves into 5 groups to review raw datasets from different countries. For Ethiopia, the 2017 data received was processed and it was agreed that there would be a follow up after the workshop to receive a more detailed dataset. The exercise aimed at validating data received from the Bureau of statistics, Ministry of Agriculture and Fertilizer Regulatory Authorities in the different countries. The verified data was then used to produce summary statistics on imports and exports for the different countries. This was then sent back to the respective country teams that re-validated it

3 Country by Country reviews

3.1 Burundi

3.1.1 Fertilizer Production

There is no primary production of fertilizers in Burundi. There is also no blending plant in the country to blend different types of fertilizers. All fertilizers used are imported.

3.1.2 Fertilizer Imports

Fertilizer imports to Burundi increased from 32,715mt in 2015 to 39,795mt in 2016, about 22%. There was also a huge increase in 2017 with volumes at 50,127mt which is about 26% increase compared to 2016. Fertilizers imported to Burundi are mostly from neighboring countries; Tanzania, Kenya and Uganda.

Table 2: Burundi Fertilizer imports 2015 – 2017

HS Code	Fertilizer	2015	2016	2017
3105300000	DAP	24,415	23,398	37,895
3102100000	Urea	4,493	8,418	9,253
3104200000	MOP	824	533	1,765
3105200000	NPK	2,663	7,227	1,214
3103100000	TSP	320	220	
Total (mt)		32,715	39,795	50,127

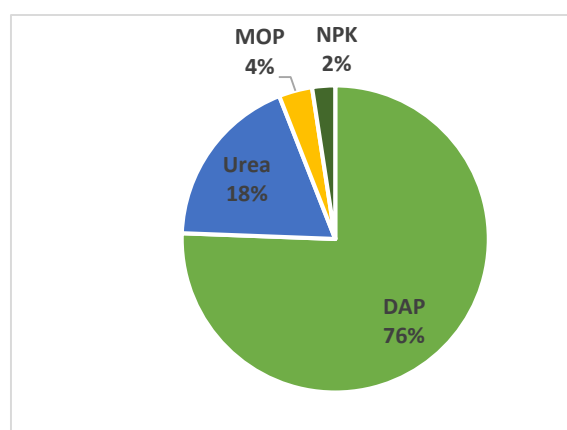
3.1.3 Fertilizer Exports

There are no exports of fertilizers from Burundi.

3.1.4 Fertilizer Apparent Consumption

It is assumed all fertilizers imported are consumed within the same year, thus statistics of the imports are same as for apparent consumption. DAP is the most consumed fertilizer and it is mostly used on beans, maize, rice and potato. Urea is the second most consumed fertilizer and it is used on tea, rice and vegetables. There are 4 main grades of NPK's. NPK 17 17 17 mostly used on food crops, NPK 20 10 10 used on tea, NPK 9 20 6 + 1S + 1.5B used on cotton and NPK 22 6 12 + TE used on coffee. TSP is also used on sugar cane. The increase in import volumes were mainly because of government subsidy program.

Figure 2: of 2017 fertilizer apparent consumption in Burundi





Picture 2: Burundi Participants

Table 3: List of participants from Burundi

	Participants	Position	Institution	Contact	Email
1	Dodiko Prosper	Director	MoA	+257 79938685	doproper2002@yahoo.com
2	Kamariza Espérance	Advisor	MoA	+257 71379934	esperiza05@yahoo.fr
3	Sibomana Jean Claude	Director	ISTEEBU	+257 79928809	sibomana.jeanclaud76@mail.com
4	KAZUNGU Charles	Manager	ITCO	+257 71621850	charleskazungu@gmail.com
5	KUBWIMANA Alexis	Marketing Manager	EAGTC	+257 75422829	kubwimana@gmail.com

3.2 Ethiopia

3.2.1 Fertilizer Production

There is no primary production of fertilizer in Ethiopia. There are, however, five fertilizer blending plants in Becho Woliso in Tulu Bollo, Enderta in Mekelle, Gibe Dedesa in Nekemte, Melik in Worabe and Merkeb in Bahir Dar. The plants currently blends small volumes, approximately 500-1000mt each, with each having an installed capacity of 50mtph, and can blend approximately 50,000mtpa. They have stocks of Boron, Zinc and Sulphur which they use to add to the NPS and DAP to meet the soil/crop specific requirements of a small number of farmers.

3.2.2 Fertilizer Imports

Fertilizer import and distribution is done by the public sector organization called the Ethiopian Agricultural Business Corporation (EABC), formerly known as Agricultural Inputs Supply Enterprise (AISE). EABC imports the fertilizer through Djibouti port, discharges the cargo at the port, and delivers the product directly to the cooperative union warehouses if they are ready or stores in its 33 warehouses located around Mekele, Addis Ababa, Adama, Shashemene, and Komblocha to be transferred later to the cooperatives.

Fertilizer imports plus carryover stock in 2017 was 1,390,535mt. NP compound and Urea fertilizers continues to be the most imported fertilizers to Ethiopia.

Table 4: Ethiopia Fertilizer imports 2015 – 2017

HS Code	Product	2015	2016	2017 (Import + carryover stock)
3102100000	Urea	363,539	346,200	574,846
3105510000	NP 18.9 37.7 0 + 6.95S + 0.1B	55,000	288,000	448,714
3105510000	NP 19 38 0 + 7S	446,500	237,200	252,033
3105510000	NPSZnB			74,486
3105510000	NP 17.7 35.5 0 + 7.6S + 2.2Zn	60,000	54,430	18,052
3104200000	MOP	33,010		12,928
3105300000	DAP			9,475
Total (mt)		958,049	925,830	1,390,535

*Data has converted from Ethiopian calendar year (Sep - Aug) to normal calendar years (Jan - Dec)

3.2.3 Fertilizer Exports

There are no exports of fertilizers from Ethiopia.

3.2.4 Fertilizer Apparent Consumption

In 2017, fertilizers distributed to regions in Ethiopia for use was about 1,390,535mt and it is assume that is the apparent consumption of 2017 although we can't account for carryover stock from the region level. There was about 16% of carryover stock from the fertilizers distributed to regional level from the national level.

Table 5: 2017 Ethiopia fertilizer statistics summary

HS Code	Product	Supply (Import + carryover stock)	2017 Distribution (to regions)	carryover at central warehouse
3102100000	Urea	574,846	459,285	115,561
3105510000	NP 18.9 37.7 0 + 6.95S + 0.1B	448,714	377,527	71,187
3105510000	NP 19 38 0 + 7S	252,033	238,191	13,843
3105510000	NPSZnB	74,486	63,455	11,031
3105510000	NP 17.7 35.5 0 + 7.6S + 2.2Zn	18,052	12,652	5,400
3105300000	DAP	9,475	9,475	-
3104200000	MOP	12,928	3,728	9,200
Total (mt)		1,390,535	1,164,314	226,222



Picture 3: Ethiopia Participants

Table 6: List of participants from Ethiopia

	Participants	Position	Institution	Contact	Email
1	Tiblets Fitsum		MOANR	+251 922493427	tibfet@gmail.com
2	Mulugeta Demiss	Project Manager	ATA	+251 911367005	mulugetadem@gmail.com
3	Birkneh Abebe	Project Leader	OCP	+251 913040727	birkneh27@gmail.com
4	Tegbaru Bellete	Project Leader	ATA	+251 912650175	Tegbaru.Bellete@ata.gov.et
5	Alemnesh Hadgu	Expert	MOANR	+251 914749880	alemnesh.hadgu@yahoo.com

3.3 Kenya

3.3.1 Fertilizer Production

There is primary production of SSP in Kenya by KEL Chemicals limited. There are 4 blenders; ARM Cement Limited (recently sold to Omya and Pinner Heights Kenya), MEA Fertilizers, Toyota Tsusho Fertilizer Africa and Export Trading Company Limited blending different grades of NPK for the local and regional market.

Table 6: Kenya SSP production volumes for 2016 and 2017

HS Code	Product	2016 Production (mt)	2017 Production (mt)
3103100000	SSP	3000	2500

*2017 volumes are estimate from the FTWG

3.3.2 Fertilizer Imports

Fertilizer imports to Kenya increased from 659,835mt in 2016 to 855,045mt in 2017, about 27% increase as shown in the table below.

Table 7: Top fertilizer imports of 2016 and 2017 in Kenya

HS Code	Fertilizer	2016 Imports	2017 Imports
3105300000	DAP	207,973	261,939
3102400000	CAN	111,654	198,806
3105200000	NPK	151,334	186,377
3105510000	NP compounds	46,542	87,383
3102100000	Urea	75,955	66,720
	Other fertilizers	66,377	53,820
Total fertilizer imports (mt)		659,835	855,045

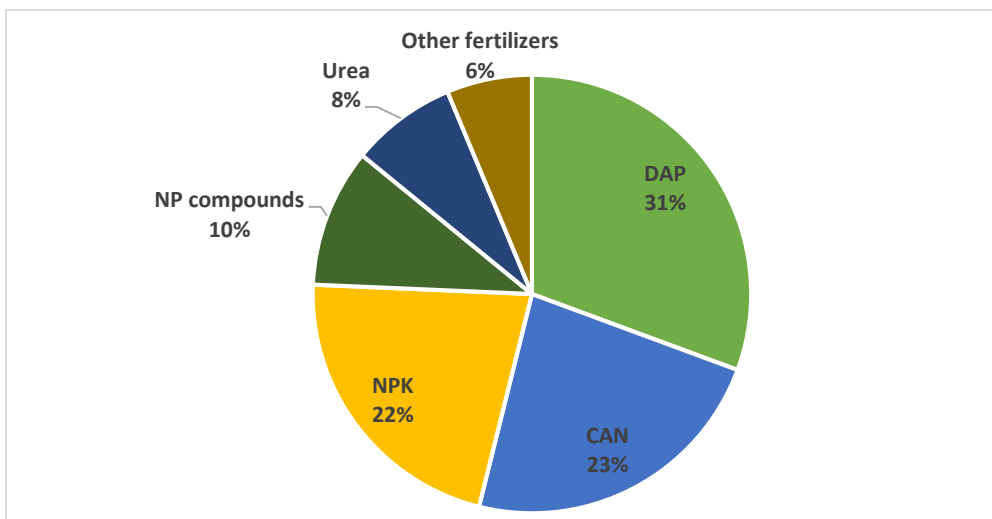


Figure 3: top 2017 fertilizer imports in Kenya

Although there is local blending of NPK's in Kenya, there are different other grades of NPK, NP and PK fertilizers that are imported and sold to farmers for direct use. The table below show the volumes of import of these fertilizers in 2017.

Table 8: Kenya NPK imports per volumes in 2017

Fertilizer	2017 Imports
NPK 26 5 5	88,963
NP 23 23 0	83,470
NPK 17 17 17	49,787
NPK 25 5 10	11,641
NPK 9 16 6 + 5S + 25CaO + 2MgO + 0.5Zn + 0.1B	6,425
NPK 23 10 5	5,500
NPK 25 5 5 + 5S	5,300
others	22,871
Total (mt)	273,957

3.3.3 Fertilizer Exports

Kenya exports fertilizers mostly to neighboring Rwanda, Burundi and Uganda. There was a slight decrease of -0.3% in fertilizer exports from Kenya in 2017 as shown in the table below.

Table 9: Kenya fertilizer exports per volumes in 2016 and 2017

HS Code	Fertilizer	2016 Exports	2017 Exports
3105200000	NPK	24,514	36,618
3105300000	DAP	9,868	9,391
3102100000	Urea	12,570	5,214
	Other fertilizers	8,986	4,535
Total fertilizer exports (mt)		55,937	55,757

3.3.4 Fertilizer Apparent Consumption

Apparent consumption of fertilizers in Kenya increased from 597,024mt in 2016 to 802,416mt in 2017, about 34% increase mostly dues to the government subsidy. Participants also mentioned that the consumption of CAN was around 120,000mt so about 80,000mt will be carried over to 2018. TSP exports being more than the imports is because of carryover of about 10,000mt imported in 2016. The reason why more phosphate rock has been imported during the period of 2015-2017 is at the request of farmers (coffee growers).

Table 10: Kenya 2017 fertilizer statistics summary

HS Code	Product	Production	Total Imports	Exports	Non Fertilizer Use	Agricultural Imports	2017 Apparent Consumption
3105300000	DAP		261,939	9,391		261,939	252,548
3102400000	CAN		198,806	513		198,806	198,293
3105200000	NPK		186,377	36,618		186,377	149,759
3105510000	NP compounds		87,383	28		87,383	87,354
3102100000	Urea		66,720	5,214	0	66,720	61,506
3102600000	Calcium nitrate		24,977	933		24,977	24,043
2510000000	Phosphate rock		7,603	2		7,603	7,601
3102210000	Ammonium sulphate		7,751	742	243	7,508	6,766
3104200000	MOP		4,742	807	101	4,642	3,835
3104300000	SOP		3,149	13	180	2,969	2,956
3103100000	SSP	2,500	-	-	-	-	2,500
3102900000	Other N fertilizer		1,975	15		1,975	1,960
3105400000	MAP		1,594	5		1,594	1,589
3103900000	Other P fertilizer		919	79	1	918	839
3101000000	Organic Fertilizers		664	179		664	485
2834210000	Potassium nitrate		222	44		222	178
3105600000	PK compounds		197	46		197	151
3104900000	Other K fertilizer		52	1		52	51
3102300000	Ammonium nitrate		18		18		-
3102500000	Sodium Nitrate		61		61		-
3102800000	UAN		270		270		-
3103101000	TSP		500	1,128		500	0
Total (mt)		2,500	855,919	55,757	874	855,045	802,416



Picture 4: Kenya Participants

Table 11: List of participants from Kenya

	Participants	Position	Institution	Contact	Email
1	Edwin Oseko	Fertilizer Promotion Officer	MOA&I	+254 725766082	ombuioseko68@yahoo.com
2	Raphael Khaemba	PAO- Statistics	MOA&I	+254 720873855	tm.dienya@gmail.com
3	Daniel Ndegwa	Director	GreenFert	+254 707539799	ndegwa2016@gmail.com
4	John Mburu	Statistician	KNBS	+254 722925069	jmburu@knbs.or.ke
5	Justus Malelu	Statistician	KRA	+254 770229707	J.Malelu@kra.go.ke
Absent with Apologies					
	Participants	Position	Institution	Contact	Email
1	Tom Dienya	Principal Agricultural Officer	MOAL&F	+254 720873855	tm.dienya@gmail.com
2	Anthony Makau	Statistician	KNBS	+254 723837730	amakau@knbs.or.ke
3	Vitalis Wafula	Commercial Manager	YARA	+254 724415477	vitalis.wafula@yara.com

3.4 Rwanda

3.4.1 Fertilizer Production

There is no primary production of fertilizers in Rwanda. Currently, there is no blending plant in the country to blend different types of fertilizers. All fertilizers used are imported.

3.4.2 Fertilizer Imports

Fertilizer imports to Rwanda decreased from 59,238mt in 2015 to 45,714mt in 2016, about -23% and an increase again in 2017, 57,921mt.

Table 12: Top fertilizer imports 2015 to 2017 in Rwanda

HS Code	Fertilizer	2015 Imports	2016 Imports	2017 Imports
3105200000	NPK	42,579	22,837	26,257
3105300000	DAP	5,774	16,828	17,422
3102100000	Urea	10,162	4,730	12,436
	Other fertilizers	723	1,319	1,806
Total fertilizer imports (mt)		59,238	45,714	57,921

3.4.3 Fertilizer Exports

There are a few exports of NPK fertilizers to neighboring Democratic Republic of Congo.

3.4.4 Fertilizer Apparent Consumption

NPK, DAP and Urea are the most consumed fertilizers in Rwanda. Participants mentioned that the government collects data on carry over stock which should also be shared to calculate real consumption. They also mentioned that actual fertilizer consumption in Rwanda was around 45,000mt.

Table 13: Rwanda 2015 to 2017 fertilizer apparent consumption table

HS Code	Fertilizer	2015 Apparent Consumption	2016 Apparent Consumption	2017 Apparent Consumption
3105200000	NPK	42,579	22,837	26,237
3105300000	DAP	5,774	16,586	17,422
3102100000	Urea	10,162	4,730	12,436
	Other fertilizers	722	1,319	1,806
Total (MT)		59,237	45,472	57,901

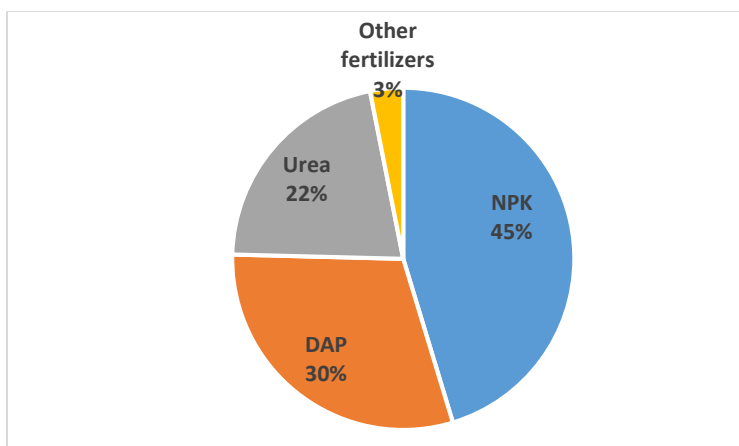


Figure 4: Chart of 2017 fertilizer apparent consumption in Rwanda



Picture 5: Rwanda Participants

Table 14: List of participants from Rwanda

	Participants	Position	Institution	Contact	Email
1	Canisius Kayitera	Business Development Manager	APTC Ltd	+250 788317303	kayitera.canisius@gmail.com
2	Jean Bosco Safari	CEO	AGRIFOP	+250 788520914	sjboscofr@gmail.com
3	Egide Gatari	Subsidy Manager	MINAGRI/RAB	+250 788215435	egide.gatari@rab.gov.rw
4	Baptiste Bizimungu	Manager	RRA	+250 788480372	baptiste.bizimungu@rra.gov.rw
5	Peter Ngugi	Commercial Manager	YARA Rwanda	+250 735518740	peter.ngugi@yara.com

3.5 Tanzania

3.5.1 Fertilizer Production

Minjingu Mines and Fertilizers Limited produces Rock Phosphate and NPS. There is also lime supplement production by ABM equipment Services Limited and Poli General Trading and Supplies Limited.

Table 15: Tanzania production volumes for 2016 and 2017

HS Code	Product	2016 Production	2017 Production
2510000000	Phosphate Rock	2,300	10,168
3105510000	NPS	3,900	9,066
Total (mt)		6,200	19,234

3.5.2 Fertilizer Imports

Fertilizer imports to Tanzania increased from 371,356mt in 2016 to 417,242mt in 2017, about 12% increase as shown in the table below.

Table 16: Top fertilizer imports of 2016 and 2017 in Tanzania

HS Code	Fertilizer	2016 Imports	2017 Imports
3102100000	Urea	136,376	151,319
3105300000	DAP	71,677	82,207
3105200000	NPK	59,609	81,842
3102400000	CAN	50,378	51,450
3102210000	Ammonium Sulphate	46,699	39,222
	Other fertilizers	6,617	11,203
Total fertilizer imports (mt)		371,356	417,242

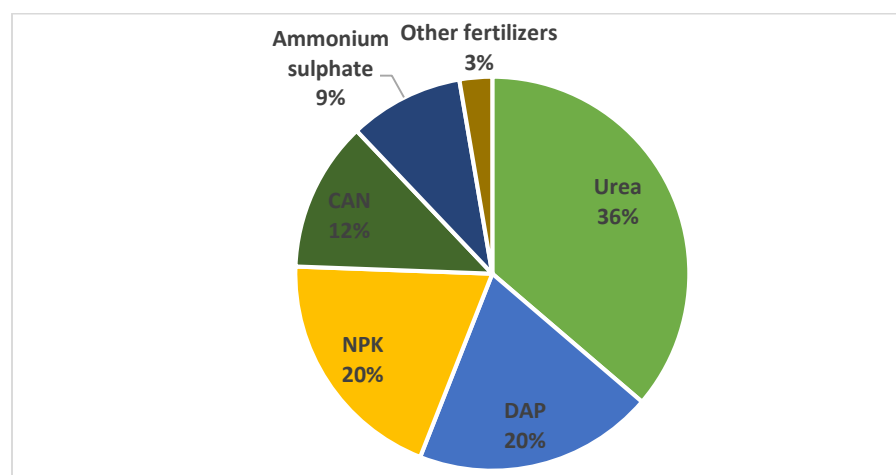


Figure 5: top 2017 fertilizer imports in Tanzania

There are various grades of NPK's that are imported to Tanzania for direct use. Below is a table of top NPK's imported by volumes

Table 17: Tanzania NPK imports per volume

Fertilizer	2017 Imports
NPK 17 17 17	20,978
NPK 10 18 24	19,850
NPK 12 24 12	12,019
NPK 22 6 12	11,001
NPK 23 10 5	6,666
NPK 15 9 20	5,584
NPK 20 10 10	3,939
others	2,309
Total (mt)	82,347

3.5.3 Fertilizer Exports

Total fertilizer exports from Tanzania increased by 95% in 2017. Exports were mostly to Burundi, Zambia, Kenya, Malawi, Rwanda and South Africa.

Table 18: Tanzania fertilizer exports per volumes in 2016 and 2017

HS Code	Fertilizer	2016 Exports	2017 Exports
3102100000	Urea	18,131	30,692
3105300000	DAP	887	26,019
3105200000	NPK	21,335	9,939
3105510000	NP compounds	1,149	9,591
2510000000	Phosphate rock	2,860	7,637
	Other fertilizers	476	3,632
Total fertilizer exports (mt)		44,837	87,510

3.5.4 Fertilizer Apparent Consumption

Apparent Consumption of fertilizers for 2017 increased by 5% from 333,631mt in 2016. NPS Compounds exported was 525mt high than the produced quantity as a result of carry-over stocks from 2016.

Table 19: Tanzania 2017 fertilizer statistics summary

HS Code	Product	Production	Fertilizer Imports	Exports	2017 Apparent Consumption
3102100000	Urea		151,319	30,692	120,627
3105200000	NPK		81,842	9,939	71,903
3105300000	DAP		82,207	26,019	56,188
3102400000	CAN		51,450	2,000	49,450
3102210000	Ammonium sulphate		39,222		39,222
3103101000	TSP		2,954		2,954
3102600000	Calcium nitrate		2,816		2,816
2510000000	Phosphate rock	10,168		7,637	2,531
3104200000	MOP		3,263	1,610	1,652
2834210000	Potassium nitrate		899		899
3105600000	PK compounds		502		502
3101000000	Organic Fertilizers		346	22	324
3105400000	MAP		209		209
3104300000	SOP		207		207
3102900000	Other N fertilizers		5		5
3105700000	NK compounds		3		3
3105510000	NP compounds	9,066		9,591	0
Total		19,234	417,242	87,510	349,491



Picture 6: Tanzania Participants

Table 20: List of participants from Tanzania

Participants		Position	Institution	Contact	Email
1	Mselem Seleman	Agricultural Officer	MoAL&F	+255 712339700	senzia5@yahoo.com
2	Daudi Siarra	Commercial Manager	TFC	+255 713039909	dsiarra@yahoo.com
3	Franks Kamhabwa	Consultant	MoA	+255 786698206	kahambwafranks@yahoo.co.uk
Absent with Apologies					
1	Beatrice Rwegoshora	CountrySTAT IT focal point	NBS	+255 713500085	beatrice.rwegoshora@nbs.go.tz
2	Jillahoma Mussa	CountrySTAT National Coordinator	NBS	+255 767588857	jillahoma.mussa@nbs.go.tz
3	Juma Mwinyihaji	Statistician	TRA	+255 715268689	jmwinyihaji@training.go.tz
4	Nganga Nkonya	Statistician	TFRA	+255 754316570	ntemizeph@yahoo.com

3.6 Uganda

3.6.1 Fertilizer Production

There is no primary production of fertilizers in Uganda. There are no blending plants in the country as well. Currently, all fertilizers used are imported.

3.6.2 Fertilizer Imports

Fertilizer imports to Uganda keeps increasing over the years. There was a 5% increase from 2015 to 2016 and a 36% increase from 2016 to 2017.

Table 21: Top fertilizer imports 2015 to 2017 in Uganda

HS Code	Product	2015 Imports	2016 Imports	2017 Imports
3105200000	NPK	26,569	24,507	44,394
3102100000	Urea	6,955	9,271	11,225
	Other fertilizers	13,175	15,235	11,078
Total fertilizer imports (mt)		46,700	49,013	66,697

3.6.3 Fertilizer Exports

There are a few exports from Uganda to South Sudan and Democratic Republic of Congo.

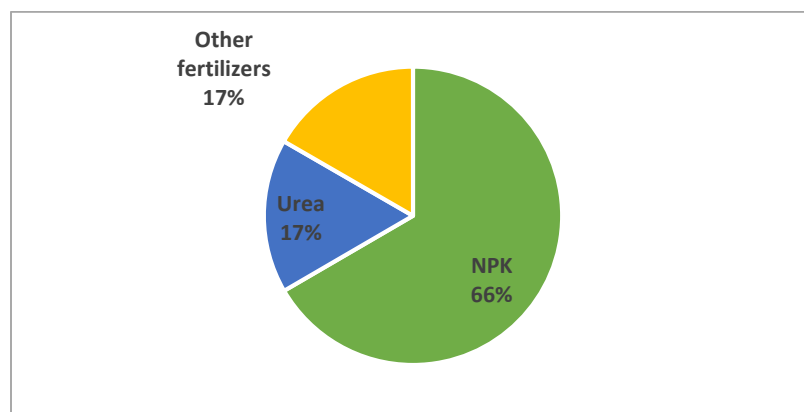
3.6.4 Fertilizer Apparent Consumption

NPK and Urea are the most consumed fertilizers in Uganda. Apparent consumption in 2017 increased by 42%. This is as a results of increase in fertilizer used by small holder farmers through campaigns, NGO projects and new extension agents with approximately 30,000ha in new commercial plantations. MAP is exclusively used on flowers.

Table 22: Uganda 2015 to 2017 fertilizer apparent consumption table

HS Code	Product	2015 Apparent Consumption	2016 Apparent Consumption	2017 Apparent Consumption
3105200000	NPK	26,557	24,405	44,187
3102100000	Urea	6,900	9,239	11,089
	Other fertilizers	13,124	13,031	11,058
Total (mt)		46,581	46,676	66,334

Figure 6: 2017 fertilizer apparent consumption in Uganda



Picture 7: Uganda Participants

Table 23: List of participants from Uganda

	Participants	Position	Institution	Contact	Email
1	Sunday Godfrey	Statistician	MAAIF	+256 712200202	bsgmalthus@yahoo.com
2	Christopher Wabwire	Statistician	UBOS	+256 772301611	christopher.wabwire@ubos.org
3	Waiswa Ronald	Researcher	URA	+256 703096203	rwaiswa@ura.go.ug
4	Mbabazi Agnes	General Manager	Balton	+256 757771330	agnes.mbabazi@balton.co.ug
5	Ravi Gupta	Manager	ETG	+256 759250583	ravi.gupta@etgworld.com

4 Review of Fertilizer Use by Crops Statistics and Reports

Three updated FUBC country reports were to be shared during this sessions that's Ethiopia, Kenya and Tanzania. However only Ethiopia had a completed report with reliable statistics. Reports for Kenya and Tanzania were shared after the workshop.

Table 24: Ethiopia Fertilizer Use by Crop 2016/17

FERTILIZER USED BY CROP		COUNTRY	Ethiopia		
Crop	Types of Fertilizer Applied	Volumes of Fertilizer Applied(tons)			
		2016/17			
Crop 1					
Teff	NP +	202,993.26			
	UREA	100,837.04			
Crop 2					
Barley	NP +	47,270.98			
	UREA	14,840.32			
Crop 3					
Wheat	NP +	167,507.66			
	UREA	76,768.04			
Crop 4					
Maize	NP +	174,729.38			
	UREA	108,828.92			
Crop 5					
Sorghum	NP +	20,083.12			
	UREA	18,238.58			
Crop 6					
Finger Millet	NP +	23,158.68			
	UREA	5,957.22			

The good progress for Ethiopia was attributed to three reasons. First, all fertilizer imports in Ethiopia is done by one agency (Agricultural Business Corporation). Second, Ethiopia has fewer fertilizer varieties compared to other countries and third, that there are fewer bureaucracies as regards data access in Ethiopia compared to other countries. A summary report was presented on Kenya and Tanzania.

Table 25: Kenya Fertilizer Use by Crop 2016

CROP	TYPE OF FERTILIZER USED IN KGS								
	DAP	NPK 23:23:0	CAN	Phosphate Rock	Ironia Anhy	MAP	NPK 17:17:17	Urea	TSP
Maize	113,987,442.20	31,252,519.59	73,985,430.00	-	-	-	-	27,354,645.45	-
Wheat	13,078,984.50	-	10,949,200.50	-	-	1,453,220.50	-	-	-
Barley	1,609,708.50	-	1,596,180.50	-	-	357,348.20	-	-	-
Beans	16,316,646.63	-	-	-	-	-	-	-	-
Rice	926,008.00	187,091.60	94,696.25	-	-	-	568,177.50	1,060,460.10	-
Sorghum	3,202,357.50	-	1,212,514.05	-	-	483,427.80	-	1,838,919.00	-
Millet	212,141.25	-	153,838.20	-	-	58,747.90	-	271,410.80	-
Cowpeas	942,723.25	-	488,024.25	-	-	-	-	576,526.60	-
Irish potato	24,979,474.76	-	-	-	-	-	-	-	-
Tomato	899,342.17	-	971,652.61	-	-	365,063.96	807,241.54	-	290,258.59
French beans	371,256.62	-	420,005.42	-	-	142,191.92	164,408.59	-	51,626.58
Snowpeas	90,363.18	-	136,838.96	-	-	89,300.74	57,278.40	-	15,663.06
Sugar Snaps	143,103.15	-	132,740.50	-	-	-	176,423.40	-	-
Garden peas	717,987.74	-	888,815.61	-	-	-	-	-	-
spinach	192,038.21	-	219,556.21	-	-	89,792.28	-	54,889.05	49,994.93
Cabbage	1,283,453.27	446,554.07	2,026,253.10	-	-	-	-	-	365,131.09
Kales	720,501.40	186,530.19	668,871.16	-	-	-	-	275,649.62	188,237.57
Carrots	232,012.29	46,772.86	-	-	-	-	-	-	123,871.29
Bulb Onions	292,511.36	-	-	-	-	-	-	-	38,546.18
Banana	98,244.15	-	61,366.53	-	-	-	-	30,395.74	30,231.54
Mango	267,116.75	-	143,823.01	-	-	-	-	59,442.63	-
Purple passion	2,136,446.72	-	2,910,318.13	-	-	-	-	-	327,833.91
Oranges	119,003.55	-	-	-	-	-	-	-	29,541.96
Lemons	8,062.90	-	-	-	-	-	-	-	1,905.81
Grape fruit	572.00	-	-	-	-	-	-	-	143.00

Table 26: Tanzania Fertilizer Use by Crop 2014-2017

TEMPLATE FOR FERTILIZER USED BY CROP					
TANZANIA					
Crop	Types of Fertilizer Applied	Volumes of Fertilizer Applied (tons)			
		2014	2015	2016	2017
Crop 1: Maize	DAP	20,962	23,275	50,278	42,141
	NPK 23-21-0 + S	2,381	4,147	7,860	-
	CAN	-	5,906	10,239	-
	TSP	-	108	153	290
	Urea	90,937	58,662	93,552	88,057
	SA	14,724	-	20,836	19,611
Crop 2: Rice	DAP	5,123	7,305	14,158	11,238
	NPK 23 21 0 + S	8,487	-	-	-
	TSP	-	109	149	300
	Urea	12,957	16,072	24,493	24,125
Crop 3: Roots & Tubers (potatoes and cassava)	TSP	-	1,450	721	6,046
	NPK 17 17 17	5,923	5,929	5,393	2,412
	SA	2,089	-	2,397	-
	CAN	7,456	7,002	6,435	14,314
Crop 4: Pulses (Beans, Cowpeas, etc)	DAP	-	-	2,815	-
	SA	-	-	10,218	-
	Ammonium Nitrate	23,096	17,004	3,334	900
Crop 5: Flue -cured Tobacco	CAN	12,783	11,173	17,000	15,355
	TSP	-	200	200	600
	Urea	200	-	-	1,206
Crop 6: Fire -cured Tobacco	NPK 10 18 24	13,833	10,020	8,875	42,310
	TSP	-	-	-	250
	Urea	350	350	200	1,207
Crop 7: Sugar cane	NPK 20 10 10	5,396	3,830	2,982	10,194
	DAP	4,531	5,943	3,539	2,809
	Urea	-	1,596	-	2,412
Crop 8: Tea	SA	14,919	11,811	13,248	19,611
	TSP	-	250	230	400
	NPK 25:5:5	4,710	4,500	4,540	6,100
Crop 9: Coffee	TSP	-	50	75	214
	CAN	1,065	3,970	16,704	19,780
	NPK (Others)	-	-	3,447	-
	NPK 17 17 17	3,746	10,953	1,507	7,253

Grace Chilande gave a presentation of the FUBC methodology for updating the FUBC reports and the participants found it sound enough as no suggestions to improve it were given.

5 Analysis of Apparent Consumption for all 6 Countries

Although there was a slight decrease of fertilizer apparent consumption for Ethiopia and Rwanda from 2015 to 2016, there was an increase for all other countries. 2017 apparent consumption saw an increase in all 6 countries although carry-over stock are unknown.

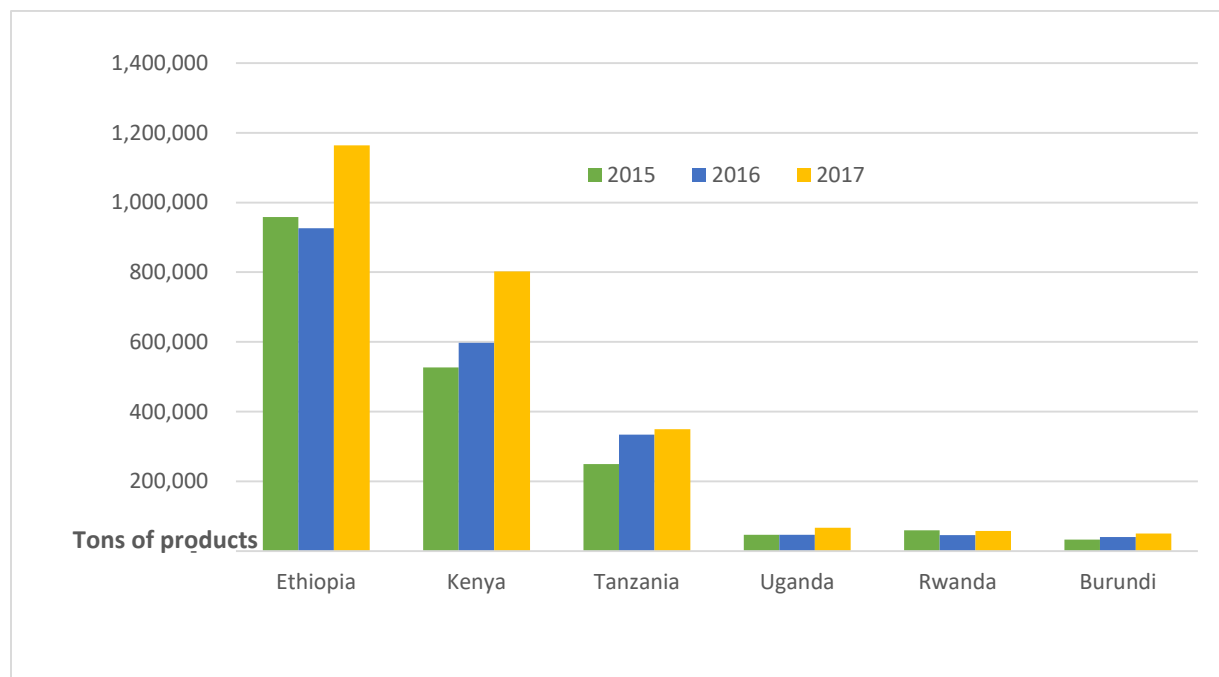


Figure 7: 2015 – 2017 apparent consumption per country

Comparing the total fertilizer apparent consumption volumes for the 6 countries, there was a 6% increase from 2015 to 2016 and a 25% increase from 2016 to 2017.

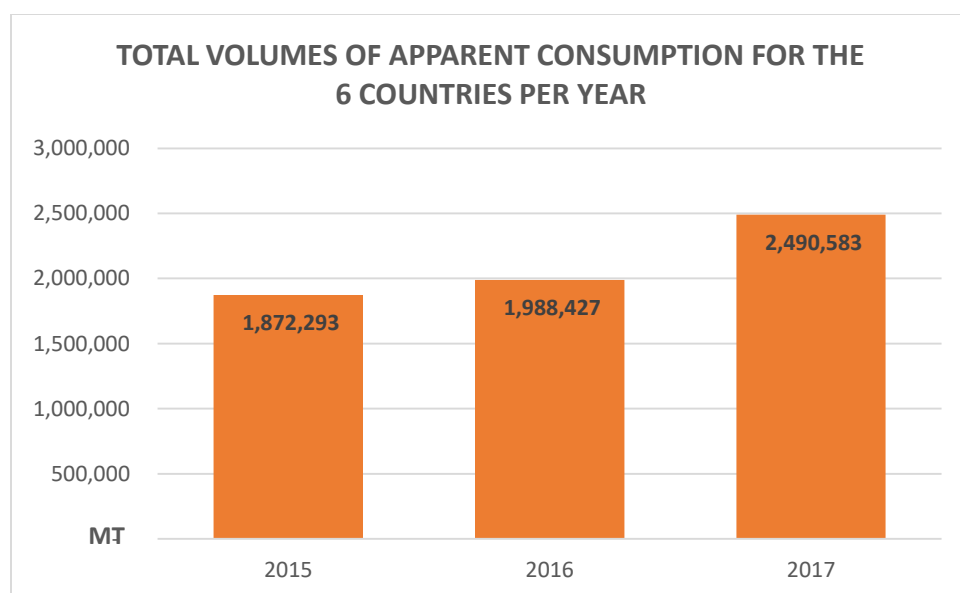


Figure 8: total apparent consumption volumes for 6 countries from 2015 to 2017

Other Observations

There are informal cross border trade activities that involves significant transactions but majority of the countries do not capture this and therefore the fertilizer statistics shared are only those captured through relevant authorities such as Customs and revenue authorities. Only Uganda captures data on informal cross border trade

6 Recommendations to the Africafertilizer.Org

1. Africafertilizer.org needs to start compiling an annual cross country comparative report that can give countries' fertilizer outlook and how different countries are performing on the different fertilizer indicators.
2. Africafertilizer.Org needs to come up with a list of all indicators that can be included in this report.
3. Add all participants to the newsletter list as only 4 people of all the participants were getting the monthly newsletter published by Africafertilizer.Org.

7 End of the Workshop

The vote of thanks was given by Viola Kenduiywa on behalf of the trainers and by Franks Kamhabwa on behalf of the participants. The workshop was closed at 1530H by Grace Chilande.

8 Appendices

8.1 Agenda

TUESDAY 8 TH MAY		
Time	Activity	Responsible
0900-0930H	Welcome Address	Grace Chilande
	Program overview and objectives	
	Introduction of participants	
0930-1000H	Overview of AFRICAFERTILIZER.ORG activities (guide on navigating the AFRICAFERTILIZER.ORG website)	Phred Gyasi
1000-1030H	Review CountrySTAT output tables Kenya 2016	
1030-1100H	Tea Break	
1100-1120H	Review CountrySTAT output tables Tanzania 2016	Grace Chilande
	Review CountrySTAT output tables Ethiopia 2016	
1120-1200H	Review CountrySTAT output tables Burundi 2014	Phred Gyasi
	Review CountrySTAT output tables Rwanda 2014	
	Review CountrySTAT output tables Uganda 2014	
1150-1210H	Review of datasets available from all countries for processing	Mary Maina
1210-1225H	Overview of the AFRICAFERTILIZER.ORG methodology for data processing	Phred Gyasi
1300-1400H	Lunch break	
1400-1600H	Group work-Processing 2017 data sets for Ethiopia, Kenya and Tanzania	Team leaders
	Group work- Processing of 2015-2017 data sets for Burundi, Rwanda and Uganda	Team leaders
1600-1630H	Tea break	
1630-1730H	Group work continues	Team leaders
1730H	Adjourn	Grace Chilande
WEDNESDAY 9 TH MAY		
0900-0930H	Program overview and objectives	Mary Maina
0930-1030H	Group work- Review of processed country output tables	Phred Gyasi/ Team leaders
1030-1100H	Tea break	

1100-1130H	Presentation of validated Country Output tables	Grace Chilande
1130-1215H	Review of Ethiopia 2018 FUBC Statistics and report	Mulugeta Demiss
1215-1230H	Update on Tanzania 2018 FUBC report development	Franks Kamhabwa
1230-1245H	Update of Kenya 2018 FUBC report development	Edwin Oseko
1245-1315H	Presentation on the 8-step FUBC data collection methodology	Grace Chilande
1315-1345H	Discussion: Effectiveness of the 8-step FUBC data collection methodology	Grace Chilande
1345-1415H	Review and discussion of 2015-2017 Apparent Consumption (Trend analysis)- Kenya and Tanzania	Phred Gyasi
1415H	Vote of Thanks	Viola Kenduiywa
1420H-1520H	Lunch break	
1530H	Workshop closed	

8.2 TERMS OF REFERENCE

Joint EAC FTWG Burundi, Ethiopia Kenya, Rwanda, Uganda and Tanzania

Fertilizer Pre-Validation Workshop

Venue: Naivasha, Kenya | Date: May 8th -9th, 2018

Background

CountrySTAT and AfricaFertilizer.org have partnered with various East African countries since 2013 to improve the accuracy and the availability of comprehensive, detailed national and sub-national statistics on fertilizer production, trade, and consumption.

In 2017, the technical meetings and training workshop were conducted in Ethiopia - a joint workshop for Ethiopia, Kenya and Tanzania CountrySTAT FTWG members to process and validate 2016 Trade statistics.

Objectives of the Workshop

The main objectives of this years' workshop is to:

1. Validate 2017 fertilizer data on production, imports, exports, apparent and actual fertilizer consumption for Kenya, Tanzania and Ethiopia; also 2015-2017 Burundi, Rwanda and Uganda.
2. Review the 2018 Fertilizer Use by Crop (FUBC) reports for Ethiopia, Kenya and Tanzania
3. Review the Methodology for Consumption data Collection

Expected results of the workshop

By the end of the workshop, participants will have prepared the statistical output tables in CountrySTAT format on production, trade and fertilizer consumption for the year 2017.

Updated fertilizer consumption reports for Ethiopia, Kenya and Tanzania.

Participants

30 participants are expected to attend this technical workshop consisting of Members of the national CountrySTAT Fertilizer Technical Working groups (FTWG) established since 2012, and officials from various public and private sector institutions handling agricultural data sets-without the CountrySTAT umbrella. AfricaFertilizer.org will provide technical and financial support for the workshop.

FTWG include representatives from:

Public Sector institutions and organizations

- Statistical divisions of Ministries of Agriculture
- Fertilizer/agro inputs directorates of Ministries of Agriculture
- National Bureaus of Statistics
- Customs and Revenue Authorities
- Port Authorities
- Fertilizer manufacturers, importers and distributors, and their association where existing

Private Sector institutions

- Importers
- Blenders
- distributors

FTWG members will be assisted by:

- IFDC and AFAP representatives from Eastern and Southern African countries
- FAO, IFA, and EAC representatives in charge of agricultural statistics and fertilizer market development
- Consultants involved in fertilizer consumption studies and market assessments

Organization and methodology of work

The participants are invited by CountrySTAT and AfricaFertilizer.org to gather and share data available at their level on:

- The production capacity and the production of fertilizer
- Imports and Exports (in Raw format - see below)
- The actual fertilizer consumption, their use by crops and by cultivated area

The data collected will be pre-formatted by the experts of IFDC and AfricaFertilizer.org initiative

These data will then be analyzed and validated during group work by countries, with the technical assistance of IFDC and CountrySTAT. The results will be finally presented in plenary; recommendations will be made to ensure a wide dissemination of these results and improve the quality of the information collected.

Format of the data

For the data on imports and exports

- The disaggregated data of imports and exports, generally available at the level of customs services and points of entry and exit of fertilizers (Port Authorities)
- Note that only the aggregated data by product and per year are published. The information relating to the operators or the values are only used to verify and validate the types of fertilizer, the volumes and the agricultural or non-agricultural use of these fertilizers, but are not published.
- The data are to be provided in Excel format to allow for a thorough analysis by the participants. Scanned files or in pdf are excluded. They must contain the following information:

- The customs codes in the format Harmonized System HS
- The exact description of the goods in addition to the customs index
- The net volume in kg or in tons
- The value (local currency, or in US Dollar)
- The name of the importer or the Exporter
- The country of origin and/or destination
- The date of the operation (day/month/year)

Example of data imports (Kenya 2015)

YEAR	MONTH	HS_CODE	QUANTITY	CIF VALUE (Kshs)	ORIGIN	PRODUCT DESCRIPTION	IMPORTERS
2015	JANUARY	31059000	2,700	1,614,011	BELGIUM	FERTILIZERS: NUTRICHEM ELFERT F	ELGON KENYA LIMITED
2015	JANUARY	31022100	162,000	3,612,895	CHINA	6X20 AMMONIUM SULPHATE CAPROLACTAM GRADE SINOPEC BRAND MFG 11/14 EXP 11/16 PCIU 212708-3 PCIU 118974	PRIYANN ENTERPRISES LIMITED
2015	JANUARY	31022100	81,000	1,476,922	CHINA	AMMONIUM SULPHATE	UKLI (AFRICA) LIMITED
2015	JANUARY	31026000	480,000	17,309,879	CHINA	CALCIUM NITRATE COMPOUND FERTILIZER	AMIRAN KENYA LIMITED
2015	JANUARY	31026000	52,000	2,436,440	CHINA	CALCIUM AMMONIUM NITRATE	P J DAVE FLOWERS LIMITED
2015	JANUARY	31021000	20,000	536,004	CHINA	UREA NITROGEN FERTILIZER 46	BIASHARA MASTERS SAWMILLS LIMITED
2015	JANUARY	31021000	24,400	928,797	CHINA	AD BLUE 20. LTR	RAMA AUTO PARTS LIMITED
2015	JANUARY	31021000	4,500	1,715,609	CHINA	NEW AD BLUE - 20 LTRS.	
2015	JANUARY	31021000	24,900	919,622	CHINA	NEW AD BLUE 20.LTR.	
2015	JANUARY	31021000	121,560	4,254,488	CHINA	AD BLUE	
2015	JANUARY	31059900	19,500	5,525,455	CHINA	NUTRIPLANT ORGANIC PLUS FERTILIZER WATER SOLUBLE	GREEN WORLD INTERNATIONAL KENYA LTD
2015	JANUARY	31059000	1,000	680,774	CHINA	MICRO NUTRIENTS FOLIAR FERTILIZER	
2015	JANUARY	31026000	120,000	4,331,713	CZECH REPUBLIC	5X20 CONTAINING:- VAN IPEREN CALCIUM NITRATE FERTIGATION GRADE TCLU2264696 TRHU2117361.	OSHO CHEMICAL INDUSTRIES LIMITED
2015	JANUARY	31021000	1	459	GERMANY	NEW MERCEDES BENZ VEHICLE NOX REDUCING AGENT (PART NO.A000583010712	D T DOBIE & COMPANY (K) LTD
2015	JANUARY	31055100	14,496	3,620,401	GERMANY	WUXAL MACROMIX -LIQUID FERTILIZER	BAYER EAST AFRICA LIMITED
2015	JANUARY	31051000	13,047	4,695,873	GERMANY	WUXAL MACROMIX (24X0.5L)-LIQUID FERTILIZER	BAYER EAST AFRICA LIMITED
2015	JANUARY	31051000	14,496	3,620,401	GERMANY	WUXAL MACROMIX 24 24 18 -LIQUID FERTILIZER	BAYER EAST AFRICA LIMITED
2015	JANUARY	31051000	2	11,216	GERMANY	LABORATORY CHEMICALS(CONDUCTIVITY STANDARD -147 UMHOS/CM)	KOBIAN (KENYA) LIMITED
2015	JANUARY	31052000	125,000	14,185,741	HONG KONG	MONO POTASSIUM PHOSPHATE -MAGU 21774-6,EITU 004729-6,EITU 008995-9	AMIRAN KENYA LIMITED
2015	JANUARY	31059000	1,970	1,284,157	INDIA	57 PKGS STC POLY FUNCTIONAL MICRO ORGANISMS	PEERLESS TEA SERVICES LIMITED

For data on production

- The volumes produced per year and by type of fertilizer, if possible with the indication of the formulas produced and their use by crop
- Information on the location, the operator, the production and storage capacity of blending and manufacturing units

For data on consumption

- Volumes consumed per year, by crop and by type of fertilizer, see below.
- Information usually from statistical services of the ministry of agriculture, public corporations sourcing through tenders, annual report of the agriculture, studies channels, etc

Example of data on Fertilizer Consumption by Crop by Product (Kenya)

Crop	Types of Fertilizer Applied	Volumes of Fertilizer Applied(tons)	
		2013	2014
Maize	DAP	145326	145326
	Mavuno- P	9083	9083
	NPK 23:23:0	16770	16770
	CAN	79576	79576
	Urea	15780	15780
	Mavuno-TD	2428	2428
	Yara Mila 23:10:5	1141	1141
Tea	NPK 26:5:5	64516	64516
	NPK 25:5:5	23365	23365
Sugarcane	DAP	8081	8081
	MOP	718	718
	NPK 23:23:0	180	180
	NPK 17:17:17	90	90
	Urea	16162	16162
	CAN	1751	1751
	Ammonium Sulphate	90	90
Specialities	1033	1033	