

TECHNICAL REPORT

Fertilizer Technical Working Group 2023 Fertilizer Statistics Validation Workshop Mozambique



April 26 – 27 2023, Maputo, Mozambique

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List of Acronyms

AGRA	Alliance for a Green Revolution in Africa
AMOFERT	Mozambique Association for Fertilizer Use and Promotion
DG	Development Gateway
FAO	Food and Agriculture Organization
FTWG	Fertilizer Technical Working Groups
IFA	International Fertilizer Association
IFDC	International Fertilizer Development Center
MCNet	Mozambique Commodity Network
NGO	Non-Government Organization
USAID	US Agency for International Development
VIFAA	Visualizing Insights on Fertilizer for African Agriculture

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1.0 Background

The AfricaFertilizer initiative is the premier source for fertilizer statistics and information in Africa. It is hosted by the International Fertilizer Development Center (IFDC) and supported by several key partners, including the International Fertilizer Association (IFA), Argus Media, and Development Gateway, an IREX Venture (DG). Since 2009, AfricaFertilizer has been collecting, processing, and publishing fertilizer production, trade, and consumption statistics for the principal fertilizer markets in sub-Saharan Africa (SSA).

Fertilizer Technical Working Groups (FTWG) were established in 2012 in 11 SSA countries. These working groups have been responsible for reviewing and validating country level data and presenting statistics results tables for validation by National Technical Working Groups before publication of the data.

AfricaFertilizer, through its partnership with CountrySTAT and others, aims to improve the quality and availability of fertilizer data in terms of production, trade, and consumption to enable decision-makers to have and to use reliable fertilizer data for formulation and monitoring of agricultural development policies, strategies on food security, promotion of fertilizer trade within East and Southern Africa and beyond, as well as update industry actors on new strategies developed in the year under review.

Currently, AfricaFertilizer, DG, and Wallace & Associates, with support from the Bill & Melinda Gates Foundation, are working to improve fertilizer data. This year, the Mozambique FTWG workshop was held on April 26 -27, 2023 in Maputo, where national fertilizer industry actors reviewed and validated Mozambique fertilizer statistics of 2015 to March 2023. On 27th April, participant agreed on the apparent consumption and suggested to include transit data because Mozambique is a transit country of fertilizer to hinterland countries.

1.1 Objectives and Expected Outcomes of the Workshop

1.1.1 Objectives of the Workshop

- Validate the fertilizer statistics from 2015 to August 2022 on the import, export transit and consumption in Mozambique and generate a fertilizer dashboard.
- Analyze the fertilizer statistics from September 2022 to March 2023 on fertilizer import, export, and apparent consumption in Mozambique.
- Update participants on the VIFAA dashboard and get feedback on the platform.

1.1.2 Expected Outcomes of the Workshop

- Fertilizer statistics for 2015 to March 2023 validated.
- Statistical output tables on fertilizer imports, exports, and apparent consumption for 2015 to March 2023 prepared.
- Participants feedback on VIFAA dashboard obtained.

1.2 Methodology

The methodology of the workshop was presentations, questions/answers, and discussions at plenary sessions. In additional, on processing of the fertilizer date, verification was done critically, line by line.

2.0 First Day (April 26th, 2023)

The morning session of the first day was used to present overviews of AfricaFertilizer/IFDC activities, DG and the dashboard development process, as well as of the Mozambique fertilizer landscape. On the afternoon and all day for April 26 validation activities continued with fertilizer import.

2.1 Participants

The workshop was attended by 28 participants on the first and second day, as indicated on the table below:

Table 1: Composition of Participant

Public	Private	NGO	Male	Female	Total
8	11	9	19	9	28

2.2 Opening Ceremony

The workshop was officially opened by a welcome address from Wilson Leonardo, the IFDC Mozambique Country Manager, to all participants. He highlighted the crucial role of fertilizer statistics in aiding the government's decision-making process for the country's agricultural sector.

The representative of the Ministry of Agriculture and Rural Development, Mr. Anastacio Luis, the representative of CTA Agribusiness Leader, Mrs. Piona Chongo, and the President of AMOFERT, Mr. Carlos Zandamela, all emphasized the need for a dashboard for Mozambique, in their short remarks.

Alcides Lampiao, the AfricaFertilizer's Fertilizer Market Analyst for Mozambique, gave an overview of the program for the meeting.

2.3 Overview of AfricaFertilizer Activities, by Sebastian Nduva

Highlights

- AfricaFertilizer seeks to provide clear, relevant, and opportune data and market information on fertilizers in the SSA region, with an aim to support the implementation of continental, regional and national agricultural and, more specifically, fertilizer policies and regulations, and promote the growth and development of competitive markets, to the benefit of both the public and private sectors, and fertilizer stakeholders globally.
- AfricaFertilizer is the leading provider of fertilizer data and information for Africa to support market transparency, improve decision-making, and deliver a more prosperous agriculture sector.
- AfricaFertilizer is hosted by IFDC and works with key public and private fertilizer sector players, including national FTWGs, fertilizer importers, producers, retailers, agriculture/fertilizer experts and consultants.
- AfricaFertilizer was rebranded in November 2022, from Africafertilizer.org to AfricaFertilizer.

- For 2023, AfricaFertilizer will continue to provide fertilizer market information to key stakeholders across SSA.

Download Presentation:
AfricaFertilizer Activities
By Sebastian Nduva

2.4. Overview of DG and the Dashboard Development Process, by Ousmane Kone

Highlights

- All stakeholders are increasingly requiring reliable fertilizer data to inform their planning and strategy decisions.
- There is the need to fill key gaps through data collection and innovation fund activities.
- Stakeholders need to collaborate in the development of dashboards to simplify accessibility and analysis of essential information and critical fertilizer statistics.
- It is important for stakeholders to support change management for data use through training, advisory services, and embedded fellowships.

Download Presentation:
Fertilizer Dashboard Process
By Ousmane Kone

2.5. Overview of Mozambique Fertilizer Landscape, by Ercidio Nhanchengo

Highlights

- Implementation of the Mozambique fertilizer regulation (Decree N° 11/2013 of April 11) is in progress.
- There is lack of fertilizer laboratories to control fertilizer quality in the country.
- Non-declaration by importing companies on the quantities of fertilizer imported, after 15 days of entry, and the non-declaration of stocks at the end of each quarter makes it difficult for the Ministry of Agriculture and Rural Development (MADER) to obtain reliable data on quantities imported and internal consumption.
- There is a challenge of lack of control over quantities of fertilizers produced in Mozambique by blending companies, as they request the import of raw materials but do not declare the quantities of the final product (blends) obtained.
- There are discrepancies between fertilizer data collected by the Ministry of Agriculture and Customs of Mozambique.
- Some fertilizer importers are not following all laid down procedures to import and export fertilizer in the country.

Download Presentation:
Mozambique Fertilizer
Landscape
By Ercidio Nhanchengo

Figure 1: Participants during the workshop



2.7. Review of Available Data for Mozambique for the Country's VIFAA Dashboard

This section was led by Fred Gyasi and assisted by Alcides Lampiao, where he took all participants through the details available information on the Mozambique data and the expected output of the group work section.

2.8. Group work - Processing import/export data sets for Mozambique.



Figure 2: Participants actively validating 2015 to March 2023 fertilizer data on import, export and transit.

Fred Gyasi led participants through the data verification and validation process. Through careful analysis, the stakeholders discovered that there no description to help determine whether the product is for agriculture or mining use.

Highlights

- The data obtained from Customs lacked specific details, such as the types of fertilizers, for example, NPK, Urea, etc. These specific descriptions are crucial for validation, particularly in cases where a fertilizer might be inaccurately classified.

**Download Presentation:
Methodology & Available
Fertilizer Data
By Fred Gyasi**

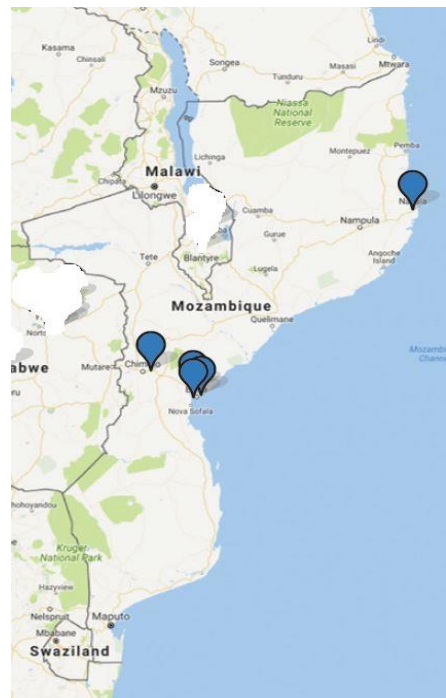
3.0 Results of 2015 to March 2023 fertilizer statistics review and validation

3.1 Locations of Fertilizer Blending Plants

Mozambique possesses five blending facilities. There are two in Gondola-Manica, including Mozambique Fertilizer Company Lda equipped with a 10-metric-ton-per-hour (mtph) capacity,

and Nacala, with a capacity of 15mtph. In Beira, there are three blending plants, namely Yara Mozambique (10mtph capacity), Omnia (45mtph capacity), and ETC Adubos (30mtph capacity).

Figure 3: Fertilizer Blending Plants



3.2 Fertilizer Production

At present, there is no primary production of fertilizers in Mozambique. All fertilizers are brought into the country either in large quantities or packaged in bags for the purpose of blending or direct usage. There are four companies, specifically ETC Adubos Limitada, Omnia Fertilizer – Mozambique, Yara Mozambique Limitada, and Mozambique Fertilizer Company Limitada that have made investments in establishing five blending facilities within the country. These facilities are engaged in blending various NPK formulations intended for both local use and export to neighboring countries.

Table 2: Mozambique Fertilizer Statistics (Tons) - 2015-March 2023

HS Code	2015	2016	2017	2018	2019	2020	2021	2022	2023*
Production									
Import	252,234	90,449	114,683	95,673	136,635	171,140	167,557	110,744	64,163
Export	54,406	28,438	42,871	30,015	91,577	70,607	84,889	50,146	10,334
Apparent Consumption	203,293	69,740	75,897	66,347	90,108	135,603	130,468	71,544	59,578
Transit	680,041	799,180	1,669,509	1,672,853	1,620,565	1,878,292	1,758,034	739,336	

*2023 - Data till March

3.3 Fertilizer Imports

Table 3: Mozambique Top Fertilizer Imports Per Year

HS Code	Fertilizer Name	2015	2016	2017	2018	2019	2020	2021	2022	2023*
3102100000	Urea	99,464	36,319	56,797	20,860	53,790	39,380	71,859	26,953	44,047
3102900000	Nitrogen Fertilizer	107,957	11,067	13,252	37,721	9,750	26,547	10,218	2,702	99
3105200000	NPK	21,086	19,479	24,446	21,227	19,580	22,079	22,949	24,853	18,938
3102210000	Ammonium Sulphate	2,956	8,163	3,080	2,462	9,370	10,129	18,997	8,486	60
3105400000	MAP	10,155	3,976	2,355	2,062	12,892	6,292	10,925	11,008	8
3105300000	DAP	62	211			7,592	5,656	7,794	14,850	
3101000000	Organic Fertilizer	1,524	749	1,287	1,302	1,380	31,310	616	650	42
3104200000	MOP			768	1,887	1,145	6,024	1,897	6,063	88
	Others fertilizers	9,029	10,486	12,699	8,153	21,136	23,722	22,302	15,179	881
Total (MT)		252,234	90,449	114,683	95,673	136,635	171,140	167,557	110,744	64,163

*2023 - Data till March

Official fertilizer imports to Mozambique averages 142,000 MT from 2015 to 2022. It was observed that the imports figures have fluctuated over the years. There was a significant decrease in imports from 2015 to 2016, with imports dropping by more than half. However, there was a rebound in 2017, with imports increasing by more than 25% compared to the previous year. In 2018, imports dropped again, but not as much as in 2016. 2019 imports increased by about 43%, which is a significant rebound. The trend continued in 2020, with imports increasing by 25% compared to the previous year. However, imports fell slightly in 2021, falling by about 2% from the previous year. In 2022, imports dropped further by about 34% compared to 2021.

It is important to note that various factors including COVID-19, gas price increases, fertilizer price hikes, and most recently, the Russia-Ukraine war have all contributed to the fluctuations of fertilizer imports. Between January to March 2023, about 64,000 MT of fertilizers have been imported into Mozambique.

The planting season in Mozambique starts from October to December and fertilizers needs to be in agrodealer shops before October.

Nitrogen fertilizers imported includes Urea, Ammonium Sulphate, Ammonium Nitrate, CAN, Calcium Nitrate, Urea Ammonium Nitrate and Limestone Ammonium Nitrate. Imported phosphate fertilizers includes Single Super Phosphate and Triple Super Phosphate. Potash fertilizers include Muriate of Potash and Sulphate of Potash. Various NPK compounds are also imported for direct use.

3.4 Fertilizer Export

Table 4: Mozambique Fertilizer Export Per Year

HS Code	Fertilizer Name	2015	2016	2017	2018	2019	2020	2021	2022	2023*
3105200000	NPK	19,562	8,267	11,718	19,715	49,925	55,071	70,428	12,934	2,920
3102100000	Urea	5,979	2,120	9,756	6,552	25,487	7,359	6,619	9,648	1,330
3102900000	Nitrogen Fertilizer	19,247	3,774	17,009	1,005			2,400	13,648	675
	Others fertilizers	9,619	14,277	4,389	2,743	16,166	8,178	5,442	13,916	5,409
Total (MT)		54,406	28,438	42,871	30,015	91,577	70,607	84,889	50,146	10,334

*2023 - Data till March

Official exports and re-exports of fertilizers from Mozambique also fluctuated over the years, with significant drops in some years and rebounds in others.

In 2015, fertilizer exports were at 54,406 MT, and it decreased significantly to 28,438 MT in 2016, representing a decline of about 47%. However, exports increased by about 50% in 2017, with the export figure rising to 42,871MT. This upward trend was not sustained, as exports dropped again in 2018 to 30,015 MT, representing a decrease of about 30%.

In 2019, there was a significant increase in exports to 91,577 MT, which was more than three times the export figure for 2018. However, in 2020, export figures decreased again to 70,607 MT, representing a decline of about 23%.

Despite the decline in 2020, exports increased again in 2021, with the figure rising to 84,889 MT but dropped again in 2022 to 50,146 MT, representing a decline of about 41%. Between January to March 2023, about 10,000 MT of fertilizers have been re(exported) from Mozambique.

Urea and blended NPKs are the fertilizers mostly re(exported) from Mozambique to mostly Zimbabwe, Zambia, and Malawi.

3.5 Apparent Consumption

Table . Mozambique Top Fertilizer Apparent Consumption Per Year

HS Code	Fertilizer Name	2015	2016	2017	2018	2019	2020	2021	2022	2023*
3102100000	Urea	93,486	34,431	47,041	14,308	28,304	32,022	65,239	17,305	42,717
3102900000	Nitrogen Fertilizer	88,709	10,285	-	36,715	9,750	26,547	7,818	-	-
3102210000	Ammonium Sulphate	792	5,902	3,080	2,215	9,370	8,193	17,367	7,896	60
3105300000	DAP	62	151	-	-	7,592	5,656	6,294	14,850	-
3105400000	MAP	10,155	174	2,265	486	12,227	3,614	9,975	828	8
3105200000	NPK	1,525	11,272	12,728	1,512	-	-	-	11,919	16,018
	Others fertilizers	8,564	7,525	10,782	11,111	22,865	59,571	23,774	18,746	776
Total (MT)		203,293	69,740	75,897	66,347	90,108	135,603	130,468	71,544	59,578

*2023 - Data till March

To know the fertilizer volumes available in the country to be used by farmers, the apparent consumption calculation is done. It is calculated as Apparent Consumption = Production + Imports - Exports - Non-Fertilizer Use. This calculation does not take into account the carryover stocks from the previous year.

Fertilizer apparent consumption increased by about 9% in 2017, with the figure rising to 75,897 MT. In 2018, apparent consumption figures dropped again to 66,347 MT, a decrease of about 12%.

In 2019, there was a slight increase to 90,108 MT, which was about 36% higher than 2018, and in 2020, there was a significant increase to 135,603 MT, representing an increase of about 51%.

There was a slight decrease in 2021 to 130,468 MT (a decrease of 4%), and in 2022, it dropped further to 71,544 MT, representing a decline of about 45%.

3.6 Mozambique Transit Fertilizer from 2015 to March 2023

Mozambique's Beira port is used by neighboring Zimbabwe, Zambia and Malawi for their exports. Transit data validated with a 70% confidence saw huge volumes of fertilizers transiting through Mozambique. There has been a steady increase in fertilizer transited through Mozambique from 2015 to 2017, with a sharp rise in 2017 (1,669,509 MT). The fertilizer transit remained relatively stable in 2018 and 2019 but saw a significant increase in 2020 to 1,878,292 MT, which is the highest amount of fertilizer imported in the given period. However, in 2021 and 2022, there was a decrease in the amount of fertilizer transit. The final quarter of 2022 is lacking in data, and even if we were to estimate a quantity of 200,000 MT for that period, the decrease would still remain under 1 million MT. According to private stakeholders, because of the difficulties associated with the utilization of the Beira port, many of them presently prefer the ports of Durban or Dar es Salaam as alternatives.

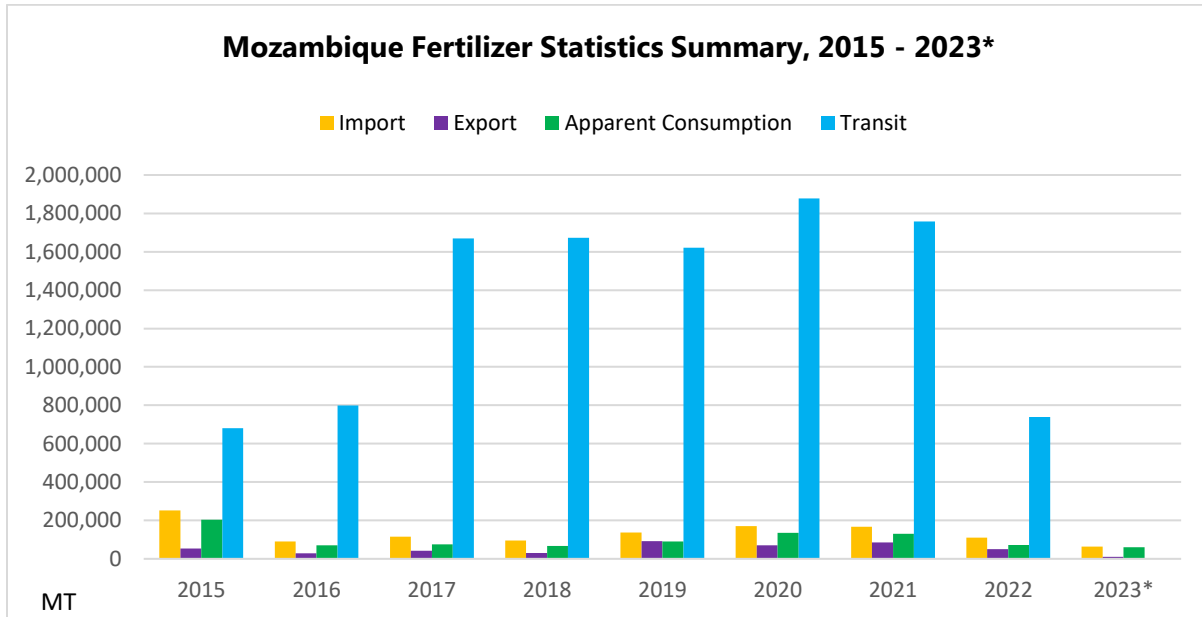


Figure 4: Mozambique Transit fertilizer from 2015 to March 2023

3.7 Importation Taxes

At the time of this report, various taxes are imposed on fertilizers upon their arrival at the port. For entry and exit of cargo in storage, importers are charged 115\$, including 60\$ of costs of sealing. These costs end up increasing the price of fertilizers. Importers are also incurring demurrage expenses due to the non-priority status of fertilizer vessels during discharge at the Beira port. The Mozambique fertilizer regulation is not allied with the real situation, it has some gaps on the industry level. A new fertilizer regulation is in the pipeline waiting for approval.

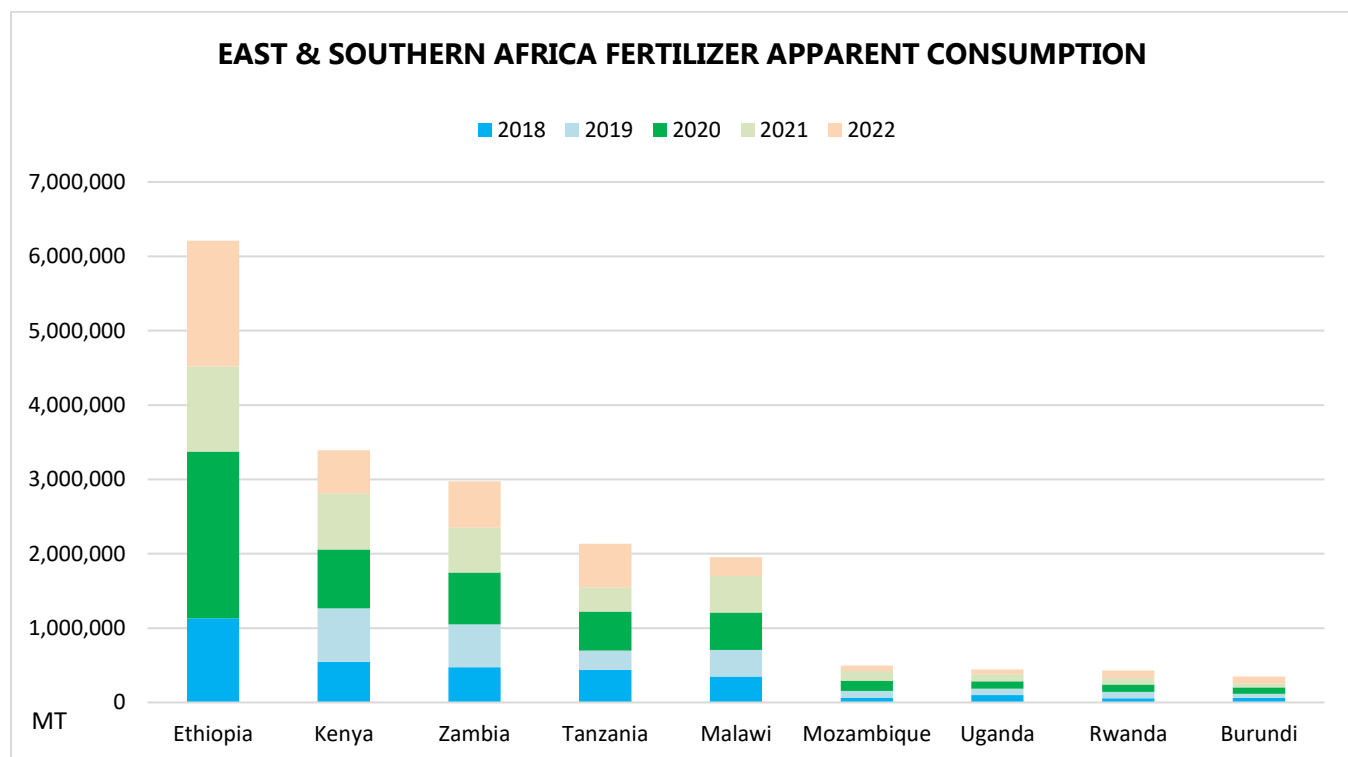


Figure 5: ESA Fertilizer Apparent Consumption

3.8 Summary Table of Presentations/Plenary Feedback Session

No.	Content	Possible Solution	Responsible for the Execution	Execution Period
1	- Data harmonization between the different sectors (MADER and Customs)	<ul style="list-style-type: none"> - Request a meeting with Ministry of the Agriculture and rural development MADER to present the results of the meeting - Meeting between the Customs and fertilizer stakeholders (MADER, CTA, FENAGRI, AMOFERT, AfricaFertilizer /IFDC) 	AfricaFertilizer/ AMOFERT FENAGRI, AfricaFertilizer /IFDC Lider AMOFERT E FENAGRI	2 Weeks
2	- Review of fertilizer regulation and priority at the port.	<ul style="list-style-type: none"> • Update of the fertilizer regulation (ongoing). 	MADER, CTA FENAGRI,	To be determined

	Tax increases during clearance process.	<ul style="list-style-type: none"> Dialogue between the government and the private sector 	AMOFERT, DNI e DGA(DIT)	
3	<ul style="list-style-type: none"> Institutional capacity in the process of producing statistical data between the different sectors. Luck of communication between sectors 	<ul style="list-style-type: none"> Training of technicians at different levels; Prepare training terms of reference 	INE, AfricaFertilizer INE e MADER	To be determined after the approval of terms of reference 15 days to develop terms of reference

5.0. Conclusion and Recommendations

5.1. Conclusion

In summary, there was active participation by all stakeholders, which is a sign of commitment to improve activities of the fertilizer industry to benefit all value chain actors. Especially smallholder farmers who are the end users.

5.2. Recommendations:

- Participants proposed organizing a meeting with the Mozambique Customs authorities to address the issue related to lack of specification details. If the detailed descriptions are available on the Single-Window System used by Customs, then that data should be provided to help in having accurate individual products for Mozambique. For the time being, all analyses will be based on total volumes.
- Mozambique needs to reconsider its taxes related to fertilizer discharge through its port, given that importers are exploring alternative avenues to bring in fertilizers through different ports like Durban and Dar-es-Salaam. This shift is primarily prompted by the substantial taxes and delays encountered in the process.
- Enhancing communication and aligning data collection procedures between the Ministry of Agriculture and Customs at entry points is necessary. This effort aims to enhance the quality and accessibility of fertilizer data.

- Participants proposed for Mozambique dashboard to include a chart related to fertilizer transit because the country is playing a huge role in transit of fertilizer to the interlocked countries such as Malawi, Zambia, Zimbabwe, and few quantities to DRC.

Annexes

Agenda

List of participants

[Link to all presentations](#)

[Link to more photos](#)

[Link to AfricaFertilizer website](#)

[Link to Africa Fertilizer Watch](#)

[Link to Mozambique Fertilizer Dashboard](#)