

**EMBASSY OF THE HASHEMITE KINGDOM OF JORDAN**

**NAIROBI-KENYA**

**ECONOMIC COUNSELLOR'S OFFICE**

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**FERTILIZER SECTOR IN KENYA**

**BY**

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## **1.0 INTRODUCTION**

The agricultural sector that is key to the overall economic growth and development in Kenya is an important segment of the national economy generating employment, outputs and incomes. According to the World Bank data currently, with a population of over 46 Million people, GDP per capita of 1,377 USD and GDP growth of 5.6%, the agriculture sector contributes 32.9% to the GDP. In addition, the total geographical area of the country is 569,140 km and agricultural land takes up 276,300 km, arable land having 5,800,000 hectares while the land use for agriculture is 10.2%.

The main crops in the country include maize, tea, bananas, millet, sorghum, sweet potatoes, wheat, barley, cassava, soybeans, sugarcane, potatoes, sunflower seeds, pigeon peas, seed cotton and vegetable primary. On the use of fertilizers for growing most of these crops, the peak demand usually ranges from January-July.

Kenyan fertilizer market is 20-25% subsidized with the main consuming crops being maize and tea. It is typically a DAP, CAN, market and over the years it has seen the introduction of NPKs and blended fertilizers.

## **2.0 KENYA FERTILIZER MARKET**

Kenya is a rapidly growing market for fertilizer with transit fertilizer through Mombasa Port going to other East African Community (EAC) countries. Like most Sub-Saharan African countries, Kenya depends on the international markets for its fertilizers, as local production is non-existent or limited despite the fact that the demand is considerably high.

However, there is some local blending for various crops and soils by some private companies including Mea Ltd (Mea fertilizers), Toyota Tshusho, ETG World (Falcon, Zambian Fertilizer & Kynoch brands) and Athi River Mining Ltd (Mavuno brand). Other major companies that deal with supply/distribution of high volumes of fertilizers include Yara EA Ltd (Chapa meli brand), Elgon Kenya Ltd (Falcon brand), Osho Chemicals, Chemagro, OCP, KEL Chemicals and Amiran Kenya.

Moreover, the potential for fertilizer consumption is estimated at a million metric tons though currently the country is consuming approximately 600-900 thousand metric tons and as much as it imports fertilizer from other countries, it exports and re-exports approximately 50,000 Metric Tonnes to Uganda and Rwanda. These are mainly DAP+ NPK (25-5-5; 23-23-0 and 17-17-17).

## **2.1 Imported fertilizer in Kenya**

In Kenya, both the government and private sector/companies import fertilizers annually.

The Ministry of Agriculture (Agri-business Division) procures subsidized fertilizer. Additionally, the government through the Ministry contracted the Export Trading Group of India to undertake imports for subsidized fertilizers for financial years 2017 and 2018. Subsidized fertilizers on average is about 150,000 metric tonnes annually comprised of DAP, NPK (25-5-5; 23-23-0 and 17-17-17), CAN and AS (which serves only 20-25% of fertilizer demand in the country). Private companies who import as well as locally blend cover the rest).

These imports are from Saudi Arabia for most of the Ministry imports as well as Italy, Turkey, Estonia, China, Morocco (DAP) and Russia. Other countries that export fertilizer to Kenya include Switzerland, Ukraine, Norway and Croatia.

Saudi Arabia accounts for the biggest bulk of DAP fertilizer imported into Kenya which translates to two-thirds of the total DAP fertilizer. Morocco is second, accounting for 20 per cent of the imports followed by Russia at 10 per cent.

## **2.2 Supply and distribution of fertilizers**

There are three (3) main modes of delivering imported fertilizer to the farmers in different parts of the country. These include the following:-

1. Government subsidy programs made at the national and county governments.
  - The National Government program is typically administered through the National Cereals and Produce Board (NCPB) direct to farmers while the county is through their ministries.
2. The integrated system
  - This has independent players who are importers, wholesalers and retailers.
3. Commodity-based system of distribution
  - This is an input-credit output system and is mainly run by the Kenya Tea Development Agency (KTDA) and One Acre Fund.

## **2.3 Statistics on the fertilizer use in Kenya**

The table below shows a summary of fertilizer consumption, exports, imports, non-fertilizer use and production from 2014-2018.

**Table 1.0: Country fertilizer statistics summary (Quantity in Metric Tonnes)**

YEAR	2014	2015	2016	2017	2018
Apparent consumption	485,006	525,938	597,024	802,414	545,675
Export	11,294	33,589	55,937	55,758	81,977
Import	493,097	556,870	659,835	855,046	626,418
Non Fertilizer Use	749	800	11,013	874	1,750
Production	2,500	3,000	3,000	2,500	0

Source: Africa Fertilizer Organization

The top five imported fertilizers include DAP, NPK, CAN, NP Compounds and Urea. NPK, DAP and CAN account for approximately 79% of the total fertilizers imported into Kenya. Additionally, other fertilizer products include Phosphate Rock, SOP, MOP, Potassium nitrate, etc.

The common fertilizer products applied at planting include:

- Di-Ammonium Phosphate (DAP)
- Mono-Ammonium Phosphate (MAP)
- NPKs (mainly 23:23:0 and 20:20:0 while 25:5:5:5s-For tea and 17:17:17- For coffee)
- Calcium Ammonium Nitrate (CAN)- For topdressing
- Urea- For topdressing
- Specialty fertilizers (e.g., fertilizers containing secondary and micronutrients) are mostly used for horticultural crops.

**Table 2.0: Market share of top 5 fertilizers imported in Kenya (2014-2018)**

Fertilizer Name	2014	2015	2016	2017	2018	Market share (%) for 2018
DAP	141,553	117,859	198,105	252,548	234,823	43.3
NPK	133,878	153,619	126,820	149,759	99,184	18.3
CAN	87,021	98,940	108,118	198,293	98,655	18.2
Urea	22,941	37,105	53,297	61,506	54,547	10.1
NP Compounds	35,587	64,218	46,542	87,354	15,894	3
Others fertilizers	61,403	51,159	60,393	49,998	38,842	7.1
<b>TOTAL (MT)</b>	<b>482,383</b>	<b>522,900</b>	<b>593,275</b>	<b>799,458</b>	<b>541,945</b>	<b>100</b>

Source: Africa Fertilizer Organization

## 2.4 Fertilizer prices

The Ministry of Agriculture in Kenya says the quantity of subsidized fertilizer in circulation has dropped significantly, pushing the price of planting fertilizer, DAP, approximately 36 USD a bag from 28 USD in 2018. Currently, there is one million 50kg bags compared to three million bags, which is normally, procured for subsidy. Moreover, these are remains from 2018 because the government has not imported any subsidized fertilizer in the current financial year since the Attorney General (AG) advised against extension of a two-year framework that was awarded to M/s Export Trading Group (ETG) on November 4, 2016 to import 150,000 MT of fertilizer at a cost of 62.4 \$ million annually.

The table below shows the price trend for DAP, NPK and Urea from October 2018 to August 2019.

**Table 3.0: Price trend of top 3 fertilizers**

OCTOBER-DECEMBER 2018 – VALUE (USD per ton)			
DESCRIPTION	DAP	NPK	UREA
October	673	583	505
November	669	584	516
December	657	579	551
JANUARY-AUGUST 2019 - VALUE (USD per ton)			
DESCRIPTION	DAP	NPK	UREA
January	646	588	551
February	657	596	559
March	675	604	570
April	665	594	557
May	664	593	556
June	665	594	557
July	657	587	551
August	620	553	500

Source: Africa Fertilizer Organization

**Table 4.0: Comparison of DAP fertilizer prices in different countries**

NO.	COUNTRY NAME	US \$ /MT
1.	Kenya	661
2.	Tanzania	566
3.	Rwanda	687
4.	Uganda	811

Source: AfricaFertilizer.org (AFO), 2019

### 2.4.1 Fertilizer cost analysis - An overview of the Mombasa Corridor

Discharge rates for fertilizers are estimated at 2,000 – 3,000MT per day with bagging at quayside and 4,000 – 6,000MT per day if bulk cargo is discharged to a warehouse.

There are transit warehouses located within the port and additional storage located outside the port operated by private logistics companies e.g. Bolllore logistics, Mitchell Cotts, Rapid Kate etc.

For example, ETG has a storage terminal next to the Mombasa port, allowing them to offload bulk fertilizers on truck into warehouses for storage.

**Table 5.0: Mombasa Port cost**

<b>Port Cost</b>	<b>Direct (Bulk to warehouse)\$/Mt</b>
CIF	0
Stevedores	4.40
Wharf age	5.50
IDF (customs clearing fee) 2.25% of FOB	6.28
RDL levy(Rail development) 1.5% of CIF	4.19
COC inspection: 0.5% of FOB	1.18
Radiation: 1% of CIF	2.79
MSS levy	0.50
Clearance/Agency fee	2.25
Bagging	18.0
Transport to warehouse	5.45
Warehouse handling (In & Out)	5.39
Storage (2 months)	3.00
Spillage: 0.5% of CIF	1.38
VAT on services (16%)	9.03
Finance costs (LC (opening) + interest)	14.65
<b>Cost to move product in Mombasa port</b>	<b>83.99</b>

*Source: Fertilizer Roundtable Conference analysis, October 2018*

**Factors affecting fertilizer prices in Kenya include but are not limited to the following:-**

1. Local blending plant by Toyota Tsusho
  - Initially, Kenya had hoped that the building of a fertilizer blending plant in Uasin Gishu would help reduce the prices and turn around farmers' fortunes. Unfortunately, when the plant opened in 2016, farmers complained that the pricing was still beyond their reach at 32 \$ US — which was still way above the global average.

2. Government procurement of subsidized fertilizer
  - The government decided to procure fertilizer through a trading company Export Trading Group (ETG), which is not a producer of fertilizer and since they need to make profits, they hike the prices.
3. Supply and distribution of fertilizers
  - This system moves most of the fertilizers to the farmers but has issues that need to be addressed around distribution and accessibility. For example, the delivery of fertilizers to end users whereby, the longer the value chains the more the additional costs of the fertilizer and ultimate cost to the farmer. The desire should be to make the value chain shorter thereby delivering the fertilizer to the farmers at a cheaper price.
4. Port clearance hurdles and hefty inspection costs, as well as demurrage charges
  - These have made fertilizer too costly for farmers with key fertilizer importers withdrawing from the trade citing regulatory frustrations.
  - There is also the issue of demurrage where a product is held at either Mombasa or Nairobi for two weeks for testing and the delays are charged per day.

### **3.0 NEW FERTILIZER STANDARDS-THE CADMIUM LEVELS REDUCTION**

In 2017, the KEBS technical committee for standards recommended the lowering of cadmium limit from 30 parts per million (ppm) to 15 ppm, which elicited various reactions. For example, Ma'aden Company who are the largest exporters of fertilizer to Kenya argued that the proposal to lower the limit "was the right approach to protect agriculture industry in Kenya" and said that 90 per cent of the cadmium in Africa came from phosphatic fertilizers. On the other hand, its main competitor, OCP Africa, advocated for the retention of cadmium levels at 30ppm "unless there is clear scientific evidence to establish that a lower limit is justified to protect health and Kenyan exports".

Naturally, Russian and Saudi Arabia fertilizers have low cadmium levels while North African phosphate producers, Tunisia and Moroccan have higher levels hence the reason behind the Saudi Arabia conglomerate Ma'aden, publicly supporting the lowering of cadmium limit from 30 parts per million (ppm) to 15 ppm. This is probably because they meet the standards requirements and would face limited or no competition in the Kenyan market.

Committee representatives from Kenya Agricultural & Livestock Research Organization (KALRO), Osho Chemicals, YARA East Africa, Kenya Tea Development Agency (KTDA), Government Chemist and Chemagro voted to approve the new standard to reduce the cadmium levels in fertilizers. Members of the committee who rejected it were OCP, KEL Chemicals, Amiran, Kenya Plant Health Inspectorate Service (KEPHIS), MEA Ltd, State Department of Agriculture, Toyota Tshusho and Elgon chemicals.

Nonetheless, the Kenya Bureau of Standards (KEBS) eventually gazetted the levels of cadmium required for all the phosphate fertilizers entering the country on February 23, 2018 and at the moment, only Ma'aden's fertilizers meet the Kenya's 15 ppm cadmium threshold — a move that has locked the Kenyan market from other major fertilizer suppliers.

Ma'aden is among the fastest growing mining companies in the world and the largest multi-commodity mining and Metals Company in the Middle East. It was established 1997 by Royal Decree with a mandate to develop Saudi Arabia's minerals sector as the third pillar of Saudi industry, beyond oil and petrochemicals. Currently, Ma'aden is ranked among the top 10 global mining companies based on market capitalization.

#### **4.0 AVAILABLE OPPORTUNITIES IN KENYA TO FACILITATE IMPROVED ACCESS AND USE OF FERTILIZERS**

- a. Political stability
  - At the moment, the prevailing political climate enables thriving of business as far as the investors are complying with applicable laws.
- b. Potential for growth in fertilizer consumption
  - In the next two to three years, fertilizer consumption is likely to hit the figure of about one million metric tons from the current estimated consumption of 650,000 metric tons. The use of balanced fertilizers that has been embraced by the government for use in specific crops is opening the market for fertilizers.
- c. Due to increased soil acidity, there is an opportunity for use of lime or incorporation of lime in fertilizers
  - This is an opportunity for companies that are specializing in lime to sell their products to deal with this soil acidity.
- d. Modern railway network
  - Continued extension of SGR, enabling transportation to far destinations, will reduce the time and cost of getting fertilizers to the users. For example, SGR can transport 3,000 metric tons overnight as opposed to the current situation where trucks take two to three days to get to western Kenya.
- e. Extension of road network
  - If the envisaged construction of 10,000 kilometers in the next five years is achieved, then players in the fertilizer subsector will be able to deliver fertilizers to where it is required.
- f. Vibrant Research Institutions
  - Presence of agricultural experts in the country is a strength as it facilitates undertaking of appropriate research on fertilizers. The research institutions have the capacity to advice on the fertilizers that are responsive to the country needs. The

government and the private sector should facilitate these to enhance their research capabilities.

g. Improved coffee prices

- The witnessed improvement in coffee prices has created an opportunity for selling of more fertilizers.

h. Presence of blending plants

- Currently there are four blending plants in the country, one chemical plant at Thika and one upcoming NPK granulation plant. This means that specific fertilizer requirements can be met.
- There is an opportunity for investors to invest in fertilizer manufacturing, as there is need to produce soil and crop specific fertilizers.

## 5.0 NOTES

- I. For the past three years, it was very notable that DAP and NPK consumption in the Kenyan market ranged between 50 – 65% of the fertilizer market share. Which counts between 300 – 400 thousand MT.
- II. The government subsidized fertilizer price of a 50kg bag currently cost USD 36, while private companies' price is between USD 38-40.
- III. It was acknowledged by Mea LTD one of the biggest importing companies that they import DAP for the price of 390 USD C&F Mombasa port while the current retail market price is 661 USD per ton.
- IV. The Kenya National Bureau of Standards (KEBS) gazette new standards that recommended the lowering of cadmium limit from 30 parts per million (ppm) to 15 ppm.
- V. Only the Saudi Arabian Conglomerate Ma'aden's fertilizers meet the Kenya's 15-ppm cadmium threshold.
- VI. Kenya re-exports approximately 50,000 – 80,000 Metric Tonnes of mainly DAP+ NPK (25-5-5; 23-23-0 and 17-17-17) to Uganda and Rwanda, there is a considerably good potential for Jordan to meet these other countries' fertilizer demands through the Kenyan market.
- VII. The past three years have recorded the consumption of fertilizers in Kenya ranging from 600,000 – 900,000 MT. According to Kenyan public and private officials dealing with fertilizers, there is a lot of demand for quality and affordable fertilizer, which is considered essential for realizing high crop yields.
- VIII. Some fertilizer companies from different countries have pilot projects with a few select farmers in Kenya, who are able to experience their products and yields results such that if the results are good, they henceforth act as brand ambassadors or champions for the their fertilizer, which in turn increases demand and sales of the product in Kenya.
- IX. Currently there are four (4) blending plants in the country including a chemical plant and an upcoming NPK granulation plant. This is all in efforts to meet specific fertilizer requirements.
- X. There is no Custom duties or VAT on fertilizers (of chapter 31 of EAC common markets tariff) charged in Kenya. Nonetheless, there are other costs associated with clearing the fertilizers at the port. For example, the cost of moving the fertilizer in Mombasa port is approximately 83.99 USD per MT as indicated in table 5.0 above.
- XI. The International Floriculture Trade Expo (IFTEX) Kenya is an annual event that brings together international exporters and importers of agricultural products. It provides an opportunity to better know the Kenyan fertilizers' market and potential importers. IFTEX 2019 had over 20,000 visitors and nearly 200 exhibitors from about 25 countries. Most notably, out of the total number of exhibitors, around 118 were Kenyan companies most of whom are flower and vegetable growers who use fertilizers to enhance the quality of their produce. IFTEX 2020 will be held in Nairobi, Kenya, from 5th - 7th June at the Visa Oshwal Center. Follow the following link for more information <https://hppexhibitions.com/iftex/latest-news/>

## 6.0 ANNEXES

**Table 6.0: List of major fertilizer importers in Kenya.**

NO.	NAME	CONTACT PERSON	TELEPHONE NO.	EMAIL & WEBSITE
1.	Elgon Kenya Ltd	Mr. Bimal R. Kantaria (Managing Director)	+254 722203089	<a href="mailto:info@elgonkenya.com">info@elgonkenya.com</a>
2.	MEA Fertilizers Ltd	Eustace Muriuki (Managing Director)	+254 724253312	<a href="mailto:muriuki@mea.co.ke">muriuki@mea.co.ke</a> <a href="mailto:info@mea.co.ke">info@mea.co.ke</a>
3.	Yara EA Ltd	James Craske (Country Manager)	+254 724255370/1	<a href="mailto:saleskenya@yara.com">saleskenya@yara.com</a>
4.	Athi River Mining Company	Pradeep Paurana (CEO)	+254 733636456	<a href="mailto:info@armcement.com">info@armcement.com</a>
5.	ETG World	Shem Odhiambo (Country Manager)	+254 202660880/1	<a href="mailto:info@etgworld.com">info@etgworld.com</a>
6.	Ocean Agriculture EA Ltd	Trevor Sherwin (CEO)	+254 733626140	<a href="mailto:trevor@oceanagea.com">trevor@oceanagea.com</a> <a href="mailto:lydia@oceanagea.com">lydia@oceanagea.com</a>
7.	Lachlan Kenya Ltd	Richard Stonewigg (CEO)	+254 722209474	<a href="mailto:info@lachlanafrica.com">info@lachlanafrica.com</a>
8.	Blist Investment	Muriuki Mary Muthoni (Managing Director)	+254 720323217	<a href="mailto:muthoni88@gmail.com">muthoni88@gmail.com</a>
9.	Niamoja Business Solutions	Peter Kihara Njuguna (Managing Director)	+254 722966913	<a href="mailto:kiharanjuguna@gmail.com">kiharanjuguna@gmail.com</a>
10.	Njeru Industries Ltd	Roselyne Njoki (Managing Director)	+254 721576941	<a href="mailto:hr@njeruindustriesltd.com">hr@njeruindustriesltd.com</a>

*Source: East African Chamber of Commerce, Industry & Agriculture (EACCIA) & Internet sources*