

Direction Générale du Trésor

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Mineral fertilizers in EAIO

Key numbers

- Nearly 20 years after the Africa Green Revolution Summit held in Abuja in 2006, which set a target of the use of fertilizers at 50 kg of nutrients per hectare, the use of fertilizers remains generally low in the EAIO region
- Only Kenya, Mauritius and Seychelles in the EAIO region have reached and exceeded the target set in the Abuja Declaration (50 kg/ha/year)
- In the region, per hectare of arable land, the level of fertilizer consumption, on national average, is: South Sudan (0 kg), Uganda and the Comoros (2 kg), Madagascar and Eritrea (3 kg), Ethiopia (42 kg), Kenya (61 kg), Mauritius (187 kg) and Seychelles (542 kg)
- Two of the five largest fertilizer consumers in Africa, in total volume, are Ethiopia (4th with 1.2 million tonnes in 2022) and Kenya (5th with 750,000 tonnes in 2022)

In summary...

A strategic sector for economies, considerable disparities in consumption (generally low) and today, almost totally dependent on imports

The economies of the EAIO region are, with the notable exceptions of Djibouti, Mauritius and the Seychelles, very dependent on agriculture to provide jobs, obtain foreign exchange and to ensure food and nutritional security. Therefore the availability of quantity and quality of mineral fertilizers, at the right times and in the right places, financially accessible, is thus a stated priority of all agricultural policies, but with generally poor results. Fertilization levels vary widely in the region, ranging from the lowest in the world to the highest in specific contexts (Mauritius and the Seychelles). Similarly, within a given country, fertilization levels vary widely depending on the type of agriculture. While the EAIO region imports almost all the mineral fertilizers it consumes, thus depending on global supply chains and an international market highly concentrated in a few countries (Russia, China, the Gulf states), there are prospects for local production of simple fertilizers (nitrogen and phosphate.

In detail...

Despite convergence on the importance of increasing fertilizer consumption, public policies remain ineffective with poor results

Nearly 20 years after the African Green Revolution Summit held in Abuja in 2006, which set a target of the use of fertilizers at 50 kg of nutrients per hectare, it has to be said that the set target is yet to be attained in the EAIO region. However, these 15 countries agree on the importance of significantly increasing agricultural productivity, which is well below demographic growth, notably by increasing fertilizer consumption: generally, low use of mineral fertilizers results in low yields, even if there are many other explanatory factors, of a technical, climatic, political and financial nature.

All public agricultural policies prioritize the increase of fertilizer consumption for food and export crops. In most countries, this means setting up fertilizer subsidy programs, which are legitimate but often with political end goals. Their main stated aim is to facilitate physical and financial access to fertilizers in order to boost farmers' incomes and contribute to food security (by increasing production and controlling consumer prices). Some development partners also invest in this sector, at the request of governments, notably via the "African Fertilizer Development Financing Mechanism" managed by the African Development Bank. A few public policies, such as in Kenya and Uganda, emphasize the importance of the private sector in fertilizer production, storage and distribution.

With the exception of Mauritius and Seychelles, and to a lesser extent Kenya and Ethiopia, the results of these public subsidy policies and programs have been disappointing, as the statistics show.

On a regional scale, per hectare of arable land, the level of fertilizer consumption, as a national average, is extremely variable and generally low: from close to 0 kg (South Sudan), 2 kg (Uganda and the Comoros), 3 kg (Madagascar and Eritrea), 42 kg (Ethiopia), 61 kg (Kenya), 187 kg (Mauritius) and 542 kg (Seychelles) (source World Bank, 2021).

Only three AEOI countries have reached or exceeded the target set in the Abuja Declaration (50 kg/ha/year): Kenya, Mauritius and Seychelles. The dynamics in place in the other countries make it unlikely that this target will be reached in the next few years.

As for the region's useful agricultural area, the level of fertilization is 19 kg per hectare per year. It should be noted that Sudan, Ethiopia and Tanzania all account for 70 % of the EAIO region's agricultural land area, and make a significant contribution to this regional average.

Two of the five largest fertilizer consumers in Africa, in total volume, are Ethiopia (4th with 1.2 million tonnes in 2022) and Kenya (5th with 750,000 tonnes in 2022).

The aspiration of countries to develop national production capacities for simple and blended fertilizers

Significant increases in fertilizer prices linked to disruptions in global supply chains caused by COVID-19 and the Russia-Ukraine war, and the resulting risks of supply, have led EAIO states to expand their production and invest in fertilizer factories that produce simple, technical and blended fertilizers.

In the EAIO region, only Madagascar currently produces a nitrogen fertilizer, ammonium sulfate, via the Ambatovy mining site, which is mainly exported. Ethiopia and Eritrea, which have substantial potash reserves, are planning to develop certain mining sites that would enable them to supply both their domestic and export market (potential for 50 % of Eritrean exports). Ethiopia, which has substantial gas reserves, could also launch into the production of nitrogen mineral fertilizers.

Fertilizer use in the region is still dominated by simple, basic fertilizers such as urea and di-ammonium phosphate, which are known for their long-term degradation of soil quality. Balanced blend fertilizers, which can be produced according to soil and crop needs (after soil analysis), are not yet widespread. High-value-added crops, particularly export crops (i.e. those with downstream contracts), are the main consumers of this type of fertilizer. Kenya stands out from its neighbors for its widespread and growing use of this type of fertilizer.

Many countries are investing (public and private) in blending plants. At the end of 2023, Rwanda inaugurated a plant with an annual production capacity of 100,000 tonnes.

Regionally, certain companies are very active, such as Yara (Norwegian group, world leader in nitrogen fertilizers, via its subsidiary Yara East Africa), Export Trading Group and OCP (via its subsidiary OCP Africa).

Finally, there is an emerging trend towards the use of organo-mineral fertilizers (made up of cow manure and mineral fertilizers).

Regional integration yet to be achieved

Fertilizer trade between countries in the EAIO region remains modest: in 2022, for example, Kenya reexported 11 % of its imports, mainly to Rwanda and Uganda. Madagascar, a producer of ammonium sulfate, exports to Tanzania (17,000 tons in 2023). Uncoordinated national subsidy programs occasionally involve "informal trade", which in particular destabilizes sectors and penalizes farmers.

There is no regional fertilizer strategy, which could aim to guarantee the physical and financial availability and accessibility of fertilizers and contribute to food security.

Regional fertilizer trade could be facilitated by increasing fertilizer production and developing regional logistics routes, improving the functioning of the fertilizer market in the region, facilitating intra-regional trade and competition within the region.

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