

# Impact of Fertilizer Policy Reforms in Tanzania

## Policy Brief

November 2020



## 1. Background and Problem Statement

A study by the Food and Agricultural Organization (FAO, 2019) shows that the usage of fertilizer in Tanzania is about 13.68 Kg/ha. This is much lower than the target set by the African Union in the Abuja declaration of at least 50kg/ha. It is lower than the global average of 135kg/ha, and far lower than India a developing country whose fertilizer use has reached more than 161.58 Kg/ha (FAOSTAT, 2018). There are several reasons that explain this low usage of fertilizer in Tanzania. Firstly, there is limited awareness of the benefits of fertilizer amongst many farming communities in the country because historically, fertilizer was not commonly used by many farmers, especially smallholder farmers. Secondly, fertilizer is not easily accessible by most smallholder farmers, and in instances when it is accessible, the price is beyond what farmers can afford. Thirdly, other policy related issues also limit access of fertilizer by many farming communities in Tanzania. One of the policy related issues is the lack of a unified reporting amongst the regulating agencies in the fertilizer industry which causes confusion in the sub-sector. For example, even though the Tanzania Fertilizer



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Regulatory Authority (TFRA) is the main government agency with regulatory mandate over the fertilizer sector, there are other agencies such as Weights and Measures Agency (WMA), Tanzania Atomic Agency Commission (TAEC), and the Surface and Marine Transport Regulatory Authority (SUMATRA) that have various regulatory mandates over the fertilizer industry. TFRA reports to the input section in the Ministry of Agriculture (MoA), while the other agencies have a completely different line of reporting. In addition, there are conflicting and overlapping regulatory mandates between TFRA and the other agencies. For example, WMA needed to weigh fertilizer while TFRA also weighed and oversaw packaging of fertilizer. SUMATRA regulated the vessels that transport fertilizer and charge fees while TFRA also charged fees for fertilizer on transport.

The other policy issue that was addressed through AGRA's intervention was the difficulty to introduce specialist and customized fertilizers arising from the stringent conditions imposed by Fertilizer Regulations (2011) on registering new fertilizer technologies and innovations. This meant that fertilizer companies could not introduce specialist and customized fertilizers that harness new technologies. The other contributory factor to the low use of fertilizer was the restrictive and costly process in registering and certifying new fertilizer technologies, which required payment of \$30,000 in testing fees that is to be conducted over a period of three years. Other challenges in the fertilizer sector include prevalent counterfeiting and adulteration leading to farmers getting poor quality fertilizers. Inefficient clearance systems and high cost of inland transport leading to delays and high demurrage costs of fertilizer to farmers.

## 2. The AGRA Approach

AGRA's support to Tanzania is premised on (a) strengthening policy & regulatory environment and state capability, (b) systems development, and (c) building partnerships for synergy. The theory of change proceeds on the premise that unlocking sustainable growth and inclusive transformation requires a combination of policy and state capacity interventions, a body of work that includes enhancing the policy and regulatory environment for increased public and private sector investment in agriculture. Systems development interventions entail building downstream delivery systems closer to the smallholder farmers while providing support to local private sector to scale up technologies and services which deliver better productivity and income. The partnership component focuses on facilitating alignment between government priorities and private sector interests and improving integration and coordination which lead to investments beneficial to smallholder farmers.

The process of policy regulatory reforms follows well defined stages, usually called the policy cycle in literature. Laswell (1956) is the scholar who first conceptualized public policy as a process that involve different steps that he called the decisional process. Brewer (1974) later adapted Laswell’s concept and modified it to come up with clearer and more intuitive phases of the policy cycle. According to Brewer (1974), the steps involved in the policy cycle are initiation, estimation, selection, implementation, evaluation, and termination. For operational purposes, AGRA has adopted the concept of the policy cycle but adapted the phases into more practical categories based on actual work on the ground. AGRA’s policy process is depicted in Figure 1 below: initiation, development, validation, approval, legislation, and implementation.

**AGRA’s approach supports six stages of government-led policy cycle**



Figure 1: AGRA’s functional policy cycle

Below is a description of the structured engagement approach that AGRA supports in the implementation of policy and regulatory reforms:

- supporting governments to identify, prioritize and reform agricultural policies, laws, regulations and administrative practices that are missing or ambiguous, economically flawed, too restrictive or excessive and/or poorly implemented;
- managing and coordinating grants to government policy units to permit engagement of public organizations and private sector firms in identifying policy and regulatory reforms and alternative reform options, appraising options within the reform options, selecting best options, developing solutions and bringing reform solutions through the administrative and legislative processes and stages of government approval and decision making required to go through to implementation;
- managing articulation and monitoring grants to trade associations to permit the engagement of private sector firms in identification of policy and regulatory reform needs, appraising of alternative reform options, and advocacy for pushing proposed reforms;
- managing advocacy grants to farmers' organizations and CSOs to speak up about good and bad policies and create awareness amongst the marginalized groups;
- convening stakeholder meetings to engage private sector firms, farmers' organizations and CSO's in policy dialogue and build consensus around reform options;
- commissioning and managing economic modelers to assess expected costs and benefits of alternative policy reform choices, estimate total costs to government to implement reforms and legal analyses of possible conflicts of reform options with other laws and regulations;
- writing official documents, papers and memos that need to be submitted to build the case for reforms for vetting and approval by higher levels of government decision making;
- shepherding reforms through parliamentary agricultural committees to parliament for passage and signing into law; and
- establishing stakeholder committee to monitor and evaluate implementation of approved reforms.

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The work on the reform of fertilizer registration policy in Tanzania followed the AGRA's approach and it emphasized public-private partnerships and dialogues and engagements in both the identification of the problem and in coordination of events that led to the reforms reported. Problem identification and prioritization was achieved through stakeholder workshops that were organized and coordinated by the Tanzania Fertilizer Society (TFS), which is the umbrella membership organization for all private fertilizer companies operating in Tanzania. During the workshops, participants were asked to list and rank the policy and regulatory challenges that affects private sector investment in the fertilizer subsector. Through these workshops, the problem was raised to public attention thereby serving both the purpose of problem identification and agenda setting.

The next step in the process was to coordinate activities that led to the reforms of the problem policies and regulation identified in the initiation stage. That phase encompassed the steps that Brewer (1974) identified as estimation, selection, implementation and evaluation of reform options, that is, the phase on coordination and monitoring of reform process. AGRA used a two pronged approach to accomplish these activities. In the first approach, a grant was given to the private sector for conducting advocacy and partners' engagements, while another grant was given to the government to support and coordinate the process. In addition to the

grants, AGRA commissioned an economic impact assessment (EIA) of the proposed reforms to demonstrate the merit of the reform options, and a legal analysis to identify the gaps and alternative regulatory and legal frameworks that could resolve the prioritized challenges.

Key policy and regulatory challenges were identified and prioritized by AGRA and its' partners based on the stakeholder engagements, the EIA and legal assessment conducted, as follows:

- (i) Fertilizer registration requirements:** According to the Fertilizer Act (2009) and its associated fertilizer regulations of 2011, all types of fertilizers, fertilizer supplements, as well as various blends or formula are required to be registered before they are allowed to be imported or used in Tanzania. This means that fertilizer companies cannot introduce specialist and customized fertilizers that harness new technologies in the country. The 2011 regulations make registration process for these new fertilizers time-consuming and costly. The regulations requires that for fertilizers, fertilizer supplements and/or blended formulae to be registered, such products have to undergo mandatory testing for three consecutive years to prove their efficacy and performance in Tanzanian soils. Moreover, the regulations had set testing fees of US\$10,000 per season, making the total testing fee for the three years US\$30,000.
- (ii) Multiple agencies with overlapping and conflicting regulatory mandates over the fertilizer industry:** The Tanzania Fertilizer Regulatory Authority (TFRA) is mandated by law to regulate the fertilizer industry. However, a blueprint for regulatory reforms that was prepared by government and the private sector concluded that the presence of multiple regulatory agencies in the fertilizer sector deters private sector investment. Such agencies include Weight & Measure Agency (WMA), Surface and Marine Transport Regulatory Authority (SUMATRA) and Tanzania Atomic Agency Commission (TAEC) among others. These agencies charge fees and levies and exert requirements that increase the cost of compliance and doing business.

AGRA's policy reform support in Tanzania targeted the review of prohibitions on the importation of customised and specialist fertilizers that the fertilizer Act 2009 and fertilizer regulations 2011 had stipulated. The objective was to reduce high costs and the period of time required to register new fertilizer products. The high cost of fertilizer registration coupled with other logistical bottlenecks ultimately limits the number of farmers that can access fertilizers and thus hampers productivity, income and food security of farmers. Furthermore, the policies limits private sector's incentives to invest in research and development (R&D) for new types of fertilizer that meet farmers' needs and in new blending machinery. The policies restrict the availability of better, customized and specialist blends of fertilizer, which leads to limiting access of new technology to smallholder farmers. AGRA also supported reforms to reduce regulatory burden from multiple agencies exercising conflicting and overlapping mandates over fertilizer companies thus increasing compliance costs and delays in processing imports of fertilizer, creating disincentives to private fertilizer companies and adding to the cost of fertilizers. In summary, the desired outcome that AGRA sought to introduce was the easing of importation and registration of new fertilizer products and improvement in access by farmers to better fertilizers so that they can have higher yields and incomes.

### 3. Methodology

The approach to resolve the policy challenges described above followed AGRA's strategy for policy and advocacy. This combines evidence generation to demonstrate worth and merit of reforms and public-private engagements to validate reform options and navigate the policy process along the government's bureaucratic phases of reforms. In this case, the twin track of support comprised of:

- **Supporting evidence generation** – As previously noted, AGRA commissioned an ex-ante economic impact assessment study of policy and regulatory reforms that was conducted by the Economic and Social Research Foundation (ESRF), and a legal analysis that was done by the Nexlaw Advocates. A cost-benefit analysis of the study demonstrated an economic rationale for proposed reforms. The legal analyses examined the existing fertilizer laws and regulations to identify provisions that were in conflict or not aligned with other relevant laws and proposed amendments to overcome these challenges.
- **Providing grant support to the private sector** through the Fertilizer Society of Tanzania (FST) the umbrella membership organization for the fertilizer companies. The grant supported the private sector in coordinating and monitoring activities aimed at identifying and prioritizing regulatory challenges, advocacy, and running stakeholder engagements to validate reform options and draft amendments to the existing regulations.
- **Providing grant support to government** in coordinating amendments of the fertilizer regulations and manage the phases of the reform process. The grant was made to the Directorate of Policy in the Ministry of Agriculture to coordinate the policy process along the bureaucratic channel to cabinet secretariat, inter-ministerial technical committee, the cabinet, and parliament as necessary.

The other critical members of the policy network that worked on this reform include the Tanzania Fertilizer Regulatory Authority (TFRA) and the legal unit in the Ministry of Agriculture. The TFRA is the custodian of the fertilizer regulations, and therefore its concurrence and advice on the reform options were important. The legal personnel from both the Ministry of Agriculture and TFRA provided the drafting functions for the amendments of the fertilizer regulations. Scientists and researchers from the Sokoine University of Agriculture (SUA) and the Tanzania Agriculture Research Institute (TARI) were also incorporated into the policy network. The Tanzania fertilizer regulations requires the testing of fertilizers to be conducted by TARI and SUA scientists and therefore, their contribution was critical in the design of improved testing regimes that do not compromise the ultimate goal of ensuring efficacy and safety of products going to the farmers. Overall, the actions that were undertaken by the policy network in order to facilitate the reform process include:

- Convening of technical experts drawn from the Ministry of Agriculture, the TFRA, and the Fertilizer Society of Tanzania who guided the discussions on the review of fertilizer regulations.

- Convening the technical experts to make presentations to a bigger group made up of representatives from academia, industry, government regulators and other partners. The goal of this meeting was to review and approve recommendations of the reform proposals made by the technical experts in preparation for a meeting with senior government policy decision makers, private fertilizer companies and their organization and the Fertilizer Society of Tanzania.
- Convening a plenary and public hearing sessions attended by fifty-three delegates drawn from the following groups and institutions:

- ❖ Permanent Secretary, Ministry of Agriculture, Livestock and Fisheries
- ❖ Fertilizer Dealers and Importers
- ❖ Tanzania Fertilizer Regulatory Authority
- ❖ Sokoine University of Agriculture
- ❖ Mlingano Soil Research Institute
- ❖ Tanzania Horticulture Association
- ❖ Small Farmers Network (MVIWATA)
- ❖ Department of Research, Ministry of Agriculture
- ❖ Department of Crop Development, Ministry of Agriculture
- ❖ Legal Department, Ministry of Agriculture
- ❖ President Delivery Bureau
- ❖ Tanzania Soil Information System
- ❖ The African Fertilizer and Agribusiness Partnership (AFAP) Tanzania
- ❖ Print and electronic media

- Concluding session of technical experts to compile a revised version of the Fertilizer Regulations based on their initial draft and feedback from subsequent meetings including the plenary that brought together all the stakeholders. The final version of the revised Fertilizer Regulations was submitted to the Permanent Secretary, Ministry of Agriculture, Livestock and Fisheries for onward transmission to the Minister for approval.

## 4. Results and Outcomes of the Policy Reform

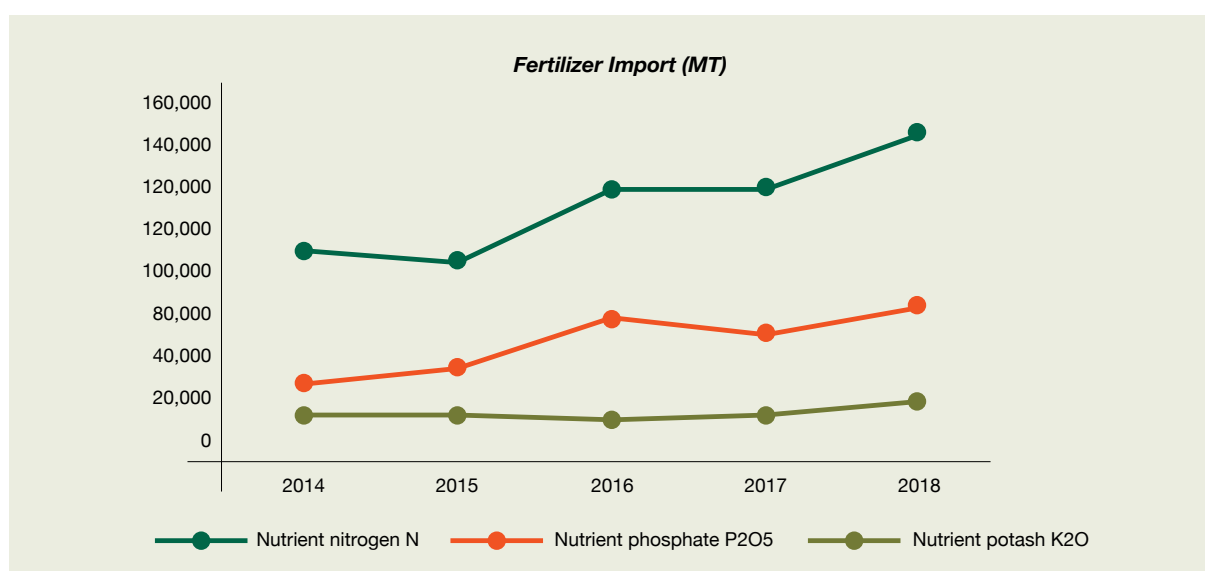
- The government amended the Fertilizer Regulations (2011), to review the prohibition on the introduction of customized blends of fertilizer. Specifically, an amendment to Fertilizer Regulation (2017) was promulgated with the Minister of Agriculture signing the new regulation on the 10 February 2017, and gazette on the 17 February 2017. The new regulation 2017 eases the conditions for registering customized and specialist blends of fertilizer and also reduces the time taken to register these products.



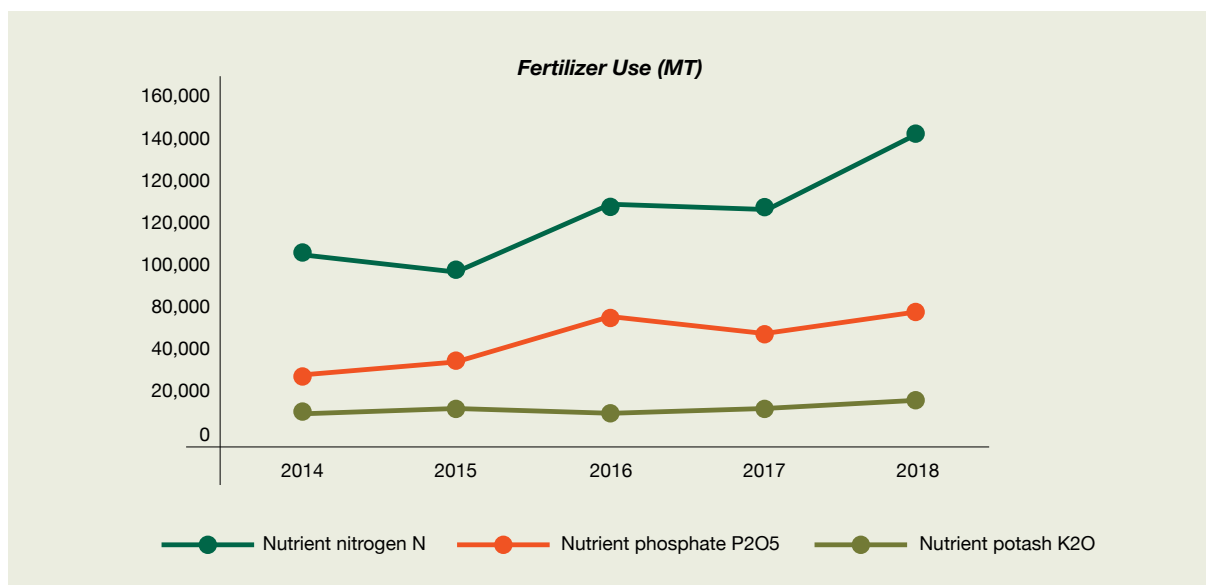
- The regulations resolved the conflicting and overlapping regulatory mandates by centralizing regulatory function under TFRA. This resulted in reduction in time delays and charges involved in processing consignments of fertilizer imports.
- More specialist and customized blends of fertilizer are now getting into the country to cater for localized needs of users, rather than relying only on standard products such as Diammonium phosphate (DAP), Calcium Ammonium Nitrate (CAN), urea etc. for all conditions.
- Other positive issues reviewed include the entry into the fertilizer sector of new companies such as the OCP Africa and innovations that have increased supply and access of niche products.

## 5. Emerging Impacts of the reform

The new fertilizer regulations (2017) which repealed the earlier regulations that were promulgated in 2011 resulted in the reduction of testing fees from \$30000 to \$10000, and reduction of testing period from three years to one year. That reform led to the renewed interest from private fertilizer companies. According to TFRA annual report (TFRA, 2018), the number of fertilizer businesses jumped from 420 to 2500 as a result of this reform, substantially raising the number of fertilizer outlets and dealers in Tanzania. There is evidence of increased imports and agriculture use of fertilizers following this reform, even though more analysis is required to establish causation (see figure 1 below). Entry of new multinational fertilizer companies into Tanzania and Morocco's OCP group is an example of positive impact of the reforms in the fertilizer sub-sector. OCP has a joint venture with the Fertilizer Company of Tanzania (TFC).



Source: Food and Agricultural Organization (FAO), 2020



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As previously highlighted, overlapping roles of multiple institutions in the fertilizer sector led to significantly high transaction costs of fertilizer imports. The lack of clarity around the overlapping responsibilities led to delays in the clearances of fertilizer cargo at ports and hence high demurrage costs, and multiple fees and charges that led to added cost that ultimately was transmitted to farmers. The cost of fertilizer was reduced as the responsibilities of these institutions were simplified and regulatory requirements reviewed in the new Fertilizer Regulations 2017. Taxes and fees charged by various regulatory authorities during importation and clearing of fertilizers were abolished. The Tanzania Fertilizer Regulatory Authority (TFRA, 2018) reported that between 2015/2016 and 2017/2018, fertilizer prices paid by farmers went down by between 10% and 40% while fertilizer usage went up from 302,450 tons to 435,178 tons.

## 6. Conclusions

AGRA's twin approach of working with both the private sector and the government to resolve problem policies and regulations has proved to be an effective strategy for coordinating and monitoring reforms that benefit agribusinesses and farmers. The private sector has firsthand experience of the challenges that deters agribusiness investors, and hence it is better placed to articulate and advocate for reforms needed to improve the business enabling environment (BEE). Engaging the government is important because they formulate and enact policies and understand the processes through which reforms can be done. Therefore, an important success factor for this reform effort was the building of the policy network that incorporated all the key institutions and partners both public and private.

The reform contributed to the improvement of the enabling policy and regulatory environment for fertilizer agribusinesses in Tanzania by removing obstacles to registering customized and specialist blends of fertilizers. As a result, farmers have access to a wide range of niche products that cater for local soil conditions and deficiencies. A structured assessment will reveal the socio-economic impact of the reforms in the fertilizer subsector. However, on-station experiments have revealed that the case of maize, the scenario with reforms yield a return of Tsh 0.99 for every shilling invested compared to a yield of 0.13 under status quo (ESRF, 2017). Thus, there is credible heuristic information about significant positive impacts on productivity and incomes of farmers.

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