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Best Practices for Agricultural Inputs Subsector in Mozambique

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Introduction

Mozambique is a poor country where malnutrition affects about 40% of children under five years old and more than half (54.7%) of the population lives under the poverty line. According to MPD (2010), the incidence of poverty is more pronounced in rural than urban areas (56.9% in rural areas versus 49.6% in urban areas). Poverty alleviation in Mozambique is mainly dependent on development of agricultural sector because about 80% of the population depends on the sector for food supply and employment. Although agriculture is considered a key sector for poverty alleviation, its production and productivity still lack behind comparing with other Sub-Saharan countries. For example, the average cereal yield in 2012 was around 694 kg/ha in Mozambique, while it was 1,083 kg/ha in Swaziland, 1,314 kg/ha in Tanzania, 2,087 kg/ha in Malawi, 2,693 kg/ha in Zambia and 3,650 kg/ha in South Africa (Mutondo, 2014).

This low agricultural productivity is in part due to the low use of yield-enhancing agricultural inputs. In 2007, only 13% of smallholders' farmers irrigated their land, 4% applied fertilizer, 12% used animal traction, 10% used

improved maize seeds, 3% used improved rice seed and 4% applied pesticides (Mutondo, Tostão and Zavale, 2009). The limited use of agricultural inputs is mainly due to limitation in access of these inputs by agricultural producers. Uaine, Arndt and Masters (2009) report that access to financial resources (credit) is important determinant of technology adoption in rural Mozambique.

To improve agricultural input subsector, the Mozambican government has been enacting and implementing agricultural policies and strategies as well as other means towards improving the availability and accessibility of agricultural inputs. The objective of this policy brief is to describe best practices related to sustainable use of agricultural inputs in Mozambique. The description starts by contextualizing the governing framework in agricultural sector and then presenting the existing best practices for the management of agricultural inputs. The following section discusses major policy issues towards improving the existing policy framework for sustainable use of agricultural inputs. Finally, the policy brief closes with some concluding remarks and recommendations.

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Agricultural policies and strategies

The government's Five Year Program (PQG) represents the main social and economic development framework in Mozambique. The key objective of the PQG is to reduce poverty by improving the living conditions of Mozambicans. PQG also calls for promotion of rapid, inclusive, and sustainable economic growth. To fight against poverty, the Government of Mozambique (GoM) designed its implementation strategy known as Action Plan for the Reduction of Absolute Poverty (PARPA) 2001-2005 and PARPA II 2006-2010. More recently, the strategy was renamed as Action Plan for the Reduction of Poverty (PARP) 2011-2014. Both PARPA and PARP call for increases in agricultural production and productivity, as well as job generation by developing small and medium enterprises (SMEs) and investing in human and social development. The GoM has also developed a strategy to improve food security and nutrition in the country: National Strategy for Food Security and Nutrition (ESAN) launched in 1998 and ESAN II 2007-2015. The main objective of the ESAN is to guarantee physical and economic access of the necessary food to all citizens in order to have active and healthy lifestyle.

Although the umbrella policies and strategies aim the development of the agricultural sector, the GoM has also developed specific agricultural policies and strategies that are generally aligned with the main government policy framework. In 1995, the GoM approved through resolution no. 11/95, of 31 of October, the Agricultural Policy and its Implementation Strategies (PAEI). This was the first agricultural policy adopted by the GoM since 1975 when the country became independent. The main objective of the PAEI was to contribute for the socio-economic

development. PAEI centered its action in increasing agricultural production and productivity through research and extension, sustainable use of natural resources, reforms of institutional development, and human development.

Under the umbrella of the PAEI, several agricultural strategies and programs were developed and implemented. The GoM launched the first National Program for Agricultural Development (PROAGRI) 1999-2003 and PROAGRI II 2005-2009. PROAGRI aimed to build institutional capacity and improve efficiency within the Ministry of Agriculture (MINAG) at both central and provincial levels. PROAGRI II called for improvements in crop production; however, it had very limited interventions aimed at developing agricultural output and input markets.

Recognizing the need for reducing food deficit through increasing agricultural production and productivity, the GoM adopted the Green Revolution Strategy (ERV) in 2007. ERV describes the roles of different actors in generating agricultural technologies, but it ignores the ultimate users of those technologies, the smallholder farmers. A year after the implementation of ERV, the GoM launched the Action Plan for Food Production (PAPA) 2008-2011 in response to the worldwide food crisis registered in 2007/08. As such, the PAPA aimed to mitigate the negative impacts of rising worldwide food prices on Mozambican consumers by increasing production and productivity of the main crops such as maize, rice, wheat, cassava, potato, and oil crops (sunflower, soybean, cotton seed and groundnut), taking into account the potential of the established agro-ecologic regions for the production of these specific crops.

The approval of the Comprehensive Africa Agriculture Development Pro-

gramme (CAADP) in 2003 led to a new chapter of agricultural policies in Mozambique. CAADP aims to eliminate hunger and reduce poverty through agricultural-led development. To do so, the African heads of State signed in 2003 the Maputo Declaration under which they agreed to allocate at least 10% of the government budget to agricultural sector and to raise agricultural productivity by at least 6%. Following the CAADP framework to a great extent, in 2011, the GoM launched its Strategic Plan for the Development of Agricultural Sector (PEDSA) 2011-2020. The main goal of PEDSA is to promote agricultural growth targeting an annual growth rate of 7%. The PEDSA advocates increasing agricultural production by expanding cultivated areas of food crops by 25% by 2020, and strengthening cooperation with the private sector across various agricultural products' value chains.

To implement PEDSA, the GoM developed the National Agriculture Sector Investment Plan (PNISA) 2013-2017. The PNISA was officially launched in April 2013 and specifies 21 programs grouped under five components – agricultural production and productivity; access to markets; food and nutritional security; natural resources; institutional reform and strengthening as well as the cost of investments that are required to successfully implement these programs. The financial requirements for this investment plan totalize 112 billion Mozambique Metical (MZN) or about USD 4 billion.

Best Practices for Agricultural Input Subsector

The best practices for agricultural input subsector can be divided in three main components: (i) seed, (ii) fertilizer and (iii) pesticide. For the seed, the first best practice is the establishment of the National Seed Program in 1978, resulting in the establishment of the National

Seed Company in 1982. The establishment of the National Seed Company was important in developing the seed sector as it was responsible for seed supply, testing, quality control and certification (Howard et al., 2001; Coughlin, 2006). Despite his fully functionality, the National Seed Company was unable to meet seed requirements in the country. In 1986, the company was renamed Sementes de Moçambique (SEMOC). SEMOC was endowed with financial support to enable its activities. The financial support given to SEMOC was another positive factor towards the development of seed subsector in Mozambique as it helped in boosting production of seed in Mozambique. SEMOC received approximately USD 40 million that were used to build up a modern seed industry by boasting its own breeding, production and multiplication of basic seed on three farms totaling 4 thousand hectares (ha). The farms also had three processing plants capable of producing 14 thousand metric tons (MT) of seed, storage facilities for 15 thousand MT of seed and a well established distribution system (SIDA, 1998).

The existence of agricultural policy framework regulating various issues in agricultural input subsector is another best practice to be pointed out. The main best practices include regulation of seed imports through Article 3, point 5, from the Ministerial Diploma No. 95/91 of 7th of August, norms for seed production and trade through Article 6 of the Decree No. 41/94 of 20th of September, regulation of production, trade, quality control of seed production including seed certification through the Article 2 from the Ministerial Diploma 184/2001 of 19th of December, establishment of institutional framework for seed management through decree No. 12/2013 of 10th of April, and establishment of property right system for breeders through

upcoming decree which is not yet approved by the GoM.

For the fertilizer, the government adopted two main documents: (i) the national fertilizer strategy and (ii) fertilizer management regulation. The national fertilizer strategy was approved and adopted in 2012 and its general objective is to stimulate the supply and demand of fertilizers to farmers in order to increase soil and crop productivity while taking into account environmental considerations. The best practices described in the strategy include enhance availability of fertilizer through stimulating national production of organic and inorganic fertilizers as well as import of bulk fertilizer and revitalization of agro dealers, improve access to fertilizer by designing subsidy programs for fertilizer and complementary inputs (seed and equipment), financial incentives for production and marketing of fertilizer through facilitating access to credit, improve sustainable use of fertilizer by training extension agents, farmers and other actors in fertilizer management as well as mapping soil fertility in the country and update fertilizer recommendations by crop.

The fertilizer management regulation was approved and adopted in 2013 through decree 11/2013 of 10th of April. This Regulation aims at ensuring the quality of fertilizers circulating in the country following the principles of public health, animal and environmental protection. The best practices described in the regulation include the environmental audit to fertilizer producers and distributors in order to prevent environmental pollution and the separation of food products from fertilizer products for avoiding food contamination.

For the pesticide sector, Mozambique

has not yet developed a specific strategy. However, there is Pesticide Regulation which was approved through Ministerial Diploma 153/2002 of 11 of September. The relevant best practice described in the pesticide regulation is the clear description of institutional framework of pesticide management.

The remaining best practices in agricultural input market subsector are those aimed to improve market efficiency, facilitate access to agricultural inputs through agricultural input subsidy as well as fiscal and trade policies. For market efficiency, the notable best practice towards the development of agricultural input subsector was the adoption of Economic Restructuration Program (PRE) from 1987 to 1995. The PRE liberalized prices of goods and services including agricultural inputs. The price liberalization encouraged the entrance of new actors in agricultural input market. The new actors are Omnia Moçambique, Mozambique Fertilizer Company (MFC), Export Marketing (ETC), Green Belt Fertilizer, Famsecure, PANNAR, Lda, TECAP, AGRIFOCUS, Hygrotech, AGRA and several NGOs, which are mainly seed importers (Alberto & Massinga, 2004). The PANNAR Lda, established in 2000, reached a volume of sales that were twice more than SEMOC during 2002 agricultural season (Coughlin, 2006). The increased competitiveness in agricultural input market improved seed quality and the mechanisms of distributing seeds to the farmers (Mazvimavi et al., 2011 and Massingue, 2004). AGRA together with IIAM developed a program called "Beyond demo" which facilitated access to inputs under credit mechanisms to the agricultural producers.

The agricultural input subsidy can take a form of direct distribution² which is

¹This is a large company which supplies fertilizer to other companies such as TECAP and Hygrotech.

²In the last 15 years, seed distribution has been the main source of seed for agricultural producers and about 75% total maize seed and 95% of total peanut seeds is from direct distribution.

mainly done under emergency circumstances and voucher. Under voucher, beneficiaries are given a certain amount through the voucher to purchase agricultural inputs at subsidized price. Although agricultural input subsidy is non-market mechanism, it is crucial in making agricultural inputs accessible to smallholder farmers. For example, from April to June of 2003 about 4,950 beneficiaries in 9 farms were counted in agricultural input subsidy programs that took place in Maputo and Gaza Provinces. From August to December of the same year, about 32,820 farmers were benefited from agricultural input subsidy programs implemented in Tete, Manica, Sofala, Inhambane, Gaza and Maputo. A second phase of agricultural input subsidy was conducted in 2004, which assisted 13,900 farmers most of which women-head households and poor in drought affected areas of Tete, Manica, Sofala and Cabo Delgado provinces. A similar effort was done by the Ministry of Agriculture (MINAG) during the second agricultural season of 2004-2005, which assisted 10,200 farmers from 8 districts in Manica, Sofala and Maputo (Mazvimavi et al., 2011). Recently, during the periods 2009/10 and 2010/11, 20,626 and 20,815 vouchers were distributed, respectively.

For the fiscal and trade policies, the government of Mozambique has been incentivizing private sector investment in agricultural input subsector through eliminating value-added tax (VAT) and reducing import tax for seed and fertilizer. Import tax for seed and fertilizer was reduced to 2.5% for imports from non SADC countries. Import taxes of seed and fertilizer from SADC countries have been phased out and all seed and fertilizer import duties will be removed by 2015 (Mutondo, 2014).

It is also important to note that the price of fertilizer (ammonia and urea) is mainly associated to the price of oil which is has been showing an increase pattern over

time. Thus, the use of natural gas, which has been discovered in large amounts in Mozambique, can be a venue for production of low cost fertilizer (ammonia and urea) improving in this manner accessibility of fertilizer by smallholder producers.

Major Future Policy Challenges

It is important to note that the Mozambican government has been used different instruments aiming to increase agricultural input use. However, the ultimate goal has not yet been attained due to different challenges. The major policy challenges can be grouped as follows: (i) the guiding policy framework, (ii) policy development and coordination, (iii) inclusivity and stakeholder consultation, (iv) evidence-based analysis, (v) policy implementation and (vi) mutual accountability.

Regarding the guiding policy framework, It is important to note that the agricultural policies, strategies and related laws as well as decrees are clearly defined and the process of developing these legal instruments is predictably and transparent. However, the approvals of these legal documents as well as their legal enforcement in case of disputes are sometime delayed. Additionally, the policy framework is weak in defining institutional responsibilities and this has originated duplication of activities yielding inefficient use of limited financial resources. It is also important to have policies conducive in creating enabling environment for fertilizer business which include improvement of roads, access to credit to importers, distributors, retailers and producers.

The lack of definition of institutional responsibilities is also a result of weak policy development coordination. This weak policy development coordination results in weak implementation of the policy as different actors cannot develop annual work plans which responds to the

approved policy framework. This problem can be also due to limited technical capacity and outreach and communication strategies.

The inclusivity and stakeholder consultation seems to be also weak due to in part limited outreach and communication strategies. However, limited private sector participation is the key factor which has limited the full implementation of agricultural policies. Hence, incentives through the development of favorable business environment are needed in Mozambique.

The evidence-based analysis can be guaranteed if policy development is based on empirical evidences. However, quality data to be used to produce empirical evidence for developing policy framework are not readily available. Furthermore, the performance and monitoring measures are not fully operational and in some cases there are no indicators with targets to be attained.

The policy implementation is mainly harmed by lack of administrative and technical capacity as well as the availability of financial resources. Furthermore, the policy priorities are not aligned with work plans of the line ministries. This fact yields the development of activities that are not concurrent to the accomplishment of policy objectives.

Mutual accountability process is not fully working as responsibilities are not well defined in policy framework. Additionally the limited performance and monitoring system contributes to weaken the accountability process. Finally, the civil society is not fully involved in monitoring and evaluation of domestic policies, which limits the accountability process.

Conclusions and Recommendation

It can be concluded that Mozambique

has institutional framework favorable for the development of agricultural input subsector mainly for seed and fertilizer. However, improvements are needed to make the subsector sustainable over time. Specifically, besides improving the challenges reported above, it is necessary to establish policies and regulations that promote competitive, private-sector agricultural input markets, especially for smallholder farmers. In this regard, it is necessary to perform the following: (i) Systematically cease distribution of free and unimproved seeds except for pre-identified staple crops in emergency situations, (ii) Allow private sector accreditation for inspection of agricultural input, (iii) approve and implement regulations governing seed proprietary laws which promote private sector investment in seed production (basic and certified seed), (iv) revise and approve legislation regulating the production, trade, quality control and seed certification compliant with the Southern African Development Community (SADC) seed protocol requirements, (v) develop and implement a national fertilizer regulatory and enforcement framework and (vi) access and validate the national fertilizer strategy.

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