

REPUBLIC OF RWANDA



**MINISTRY OF AGRICULTURE AND ANIMAL
RESOURCES**

**STRATEGY FOR DEVELOPING FERTILIZER
DISTRIBUTION SYSTEMS IN RWANDA**

APRIL, 2007

Foreword

The motivation for elaborating a *Strategy for Developing Fertilizer Distribution Systems in Rwanda* arose from the urgent need to strengthen the capacity of the private sector to timely supply quality fertilizer in adequate quantities in a cost-effective manner to rural areas. Without increased availability, access and affordability of fertilizer to smallholder farmers, the commercialization and transformation of agriculture will remain a distant goal, stalling Rwanda's economic growth and poverty reduction.

This *Strategy* puts forward priority actions, along with complementary implementation steps, to effectively improve fertilizer distribution systems and thereby address demand and supply-side constraints limiting fertilizer use in Rwanda. It was prepared by the Ministry of Agriculture and Animal Resources with assistance from Dr. Oumou Camara, Scientist-Economics at the International Fertilizer Development Center (IFDC). The *Strategy* heavily draws from the following previous reports:

1. *A Strategy for Rapid and Sustainable Fertilizer Growth in Rwanda* developed for the Africa Fertilizer Summit in June 2006
2. *An Action Plan for Developing Agricultural Input Markets in Rwanda* prepared by the IFDC/CATALIST project in January 2007
3. *Elaboration d'une Stratégie pour l'Utilisation des Engrais* by Runiga André and Dr. Dominique Muyango in March 2007.

MINAGRI expresses its sincere gratitude to the many individuals and institutions whose effort and dedications contributed to the content and quality of this *Strategy*.

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Acronyms and Abbreviations

AGF	Agricultural Guarantee Fund
BCDI	Bank of Commerce, Development and Industry
BCR	Commercial Bank of Rwanda
BK	Bank of Kigali
BNR	National Bank of Rwanda or Central Bank
BRD	Rwanda Bank of Development
CASE	Competitive Agricultural System Enterprises
CAADP	Comprehensive Africa Agricultural Development Program
CATALIST	Catalyze Accelerated Agricultural Intensification for Social and Environmental Stability in Africa’s Central Great Lakes Region
COMESA	Common Market for Eastern and Southern Africa
EDPRS	Economic Development and Poverty Reduction Strategy
GDP	Gross Domestic Product
GOR	The Government of the Republic of Rwanda
IFDC	An International Center for Soil Fertility and Agricultural Development
ISAR	Rwanda Institute of Agronomic Sciences
MDG	Millennium Development Goals
MFI	Microfinance Institutions
MINAGRI	Ministry of Agriculture
MINICOM	Ministry of Commerce
MINECOFIN	Ministry of Finance and Economic Planning
MIS	Market Information System
NAP	National Agricultural Policy
NFS	National Fertilizer Strategy
PO	Producers’ Organizations
PRSP	Poverty Reduction Strategy Papers
SDFDS	Strategy for Developing Fertilizer Distribution Systems in Rwanda
SPAT	The Strategic Plan for Agricultural Transformation
RADA	Rwanda Agricultural Development Authority
RARDA	Rwanda Animal Resources Development Authority
ROPARWA	Network of Farmers’ Associations of Rwanda
RPSF	Rwanda Private Sector Federation
SADC	Southern African Development Community
SCFF	Structured Commodity Finance Facility

Executive Summary

The Strategy for Developing Fertilizer Distribution Systems (SDFDS) in Rwanda builds on the recommendations of the National Fertilizer Strategy, developed for the Africa Fertilizer Summit and embodied in the *Abuja's Declaration on Fertilizer for the African Green Revolution*, to effectively support the timely provision of quality fertilizer to farmers in a cost-effective manner and address the constraints limiting the use of fertilizer. The *Strategy* describes the Government's plans to develop the fertilizer sector by establishing market-based mechanisms to improve fertilizer distribution systems and thereby address Rwanda's fertilizer challenge. The strategy's vision is the establishment of a distribution system that enables the right product to be delivered at the right time in sufficient quantities and at the most cost-effective manner by a competent and profitable private sector. Its overall goal is to increase fertilizer use and application rates from the current average of 8 kilograms per hectare to 25 kilograms per hectare by 2011 and thereby achieve the CAADP target of 8 percent agricultural growth and significantly reduce poverty in rural areas. The key objectives of the SDFDS are to:

- Identify short- and long-term measures needed to address supply and demand-side constraints limiting fertilizer use in Rwanda.
- Assign responsibilities among the relevant stakeholders.
- Establish a time-frame for implementation of the strategy
- Identify performance indicators for assessing the impact of the actions on national growth, food security and poverty objectives
- Estimate the cost of implementing the strategy

The SDRFS puts forward three priority actions to improve fertilizer distribution systems in Rwanda and increase the availability, accessibility and affordability of fertilizer to farmers. The actions are:

- a) Develop enabling policy, regulatory, and investment environments for fertilizer market development.
- b) Strengthen the capacity of the private sector to timely supply quality fertilizer at affordable prices.
- c) Stimulate the demand for fertilizer.

The implementation of these three priority actions will require close collaboration between various stakeholders (e.g., Ministry of Agriculture; the International Fertilizer Development Center; Private Sector; Producers Organizations; Rwanda Bureau of Standards; Magasins Generaux du Rwanda; Chamber of Commerce; Ministry of Finance and Economic Planning; Financial Institutions; Institute of Agronomic Sciences of Rwanda and Donors) in undertaking the following activities:

1. Develop enabling policy, regulatory, and investment environments for fertilizer market development.
 - a. Reduce non-tariff trade barriers

- b. Establish and enforce a legal and regulatory frameworks for fertilizers
 - c. Improve the lending environment
 - d. Forecast the national demand for fertilizer
 - e. Establish a Fertilizer Market Transparency and Information System
 - f. Increase investments in rural roads and marketing infrastructure
2. Strengthen the capacity of the private sector to timely supply quality fertilizer at affordable prices.
- a. Progressively transfer fertilizer procurement and distribution functions to the private sector
 - b. Encourage association development through the Rwanda Private Sector Federation
 - c. Registration of fertilizer importers/distributors and retailers.
 - d. Develop a coordinated and comprehensive technical training program for the private sector
 - e. Improve access to business finance
 - f. Develop an efficient fertilizer supply chain and market linkages
 - g. Improve logistics management including warehousing and transport coordination
3. Stimulate the Demand for Fertilizer
- a. Revise fertilizer recommendations through a participatory approach
 - b. Build farmers' capacity to use and access fertilizer
 - c. Promote investment in lime as a key amendment
 - d. Establish voucher systems
 - e. Promote fertilizer use through both public and private sectors
 - f. Build the capacity of extension service personnel
 - g. Encourage and train private sector to introduce small packs of fertilizer
 - h. Establish linkages with agro-processing industries
 - i. Establish Structured Commodity Finance Facilities (SCFF)

The effective implementation of the actions and activities outlined in this strategy will contribute directly to the achievement of the country's short and long-term objectives of growth and development, as outlined in the Vision 2020, CAADP, and Strategic Plan for Agricultural Transformation under the Economic Development Poverty Reduction Strategy (EDPRS). Removal of supply and demand-side constraints in the fertilizer sector through policy improvement, demand stimulation and capacity building activities would provide a more favorable investment climate and adequate human capital for fertilizer market development. The resulting reduction in transaction costs and strengthened availability, access and affordability of fertilizer in rural areas would constitute a stepping stone towards sustainable intensification of agricultural, household food security and poverty reduction in rural areas. The Strategy clearly depicts the impact pathways through which its actions will bring Rwanda closer to achieving an 8 % average annual growth in the agricultural sector and a reduction of the poverty level from the current level of 64 percent to 30%.

Strategy for Developing Fertilizer Distribution Systems in Rwanda (SDFDS)

I. Introduction

Rwanda's commitment to the New Partnership for African Development (NEPAD) Comprehensive Africa Agricultural Development Programme (CAADP) has fundamentally altered the country's policy environment. Today, there is a widespread recognition that the country's efforts to achieve growth and poverty reduction must begin with agricultural intensification and commercialization. However, agricultural productivity remains critically low in Rwanda. For instance, yields of maize, wheat, rice and potato crops averaged 889, 908, 4467, and 9,689 kilograms per hectare respectively in 2005, compared to their estimated potential yields, under optimum production conditions, of 3,500, 3,000, 7,000, and 25,000 kg/ha. The achievement of potential yields for these crops would therefore require an increase of 400, 300, 160 and 260 % in the productivity of maize, wheat, rice and potato crops, respectively (MINAGRI, 2006).

The low productivity of the agricultural sector is largely attributed to low and decreasing soil fertility. According to Henao and Banaante (2006), depletion rates in NPK were estimated to be in the order of 77 kilograms of nutrients per hectare, translating into a reduction of the country's capacity to feed 40,000 people annually. The high nutrient losses are the result of erosion, which according to recent estimates affect half of the country's farmland. Steep slopes, where farming often takes place, are common throughout the country and heavy seasonal rains, the removal of vegetation, and the neglect of the infrastructure for physical and biological soil conservation are accelerating soil erosion (Clay and Lewis, 1995, 1996). The problem is compounded by population pressure, which has not only pushed farmers onto fragile marginal lands but also resulted in reduced fallow periods.

As Henao and Banaante (2006) point out, the evidence leaves no doubt that the nutrient recycling mechanisms that sustain soil fertility are insufficient to support the needed growth in food production without fertilizers. Today, the importance of fertilizer, as a critical element in helping Rwanda achieve sustainable increases in agricultural productivity necessary to meet the CAADP target of 8 percent annual agricultural growth and achieve the first Millennium Development Goal of halving poverty and hunger by 2015, needs no longer to be demonstrated. The key question now for Rwanda, is *how* to rapidly increase the use of fertilizer in an environmentally-friendly manner.

II. Rwanda's Fertilizer Challenge

In Rwanda, the main crops fertilized include tea, potato, rice, wheat, and maize. The main types of fertilizers used are NPK 17-17-17 on potato, maize, fruits, and vegetables; NPK 25-5-5 on tea; NPK 20-10-10 on coffee; urea on maize, rice, and wheat; and DAP on maize, rice, and wheat. Between 2000 and 2003, the average retail price of fertilizer varied between 200 and 280 FRW/kg. In 2005, fertilizer prices were in the order of 400 FRW/kg.

All fertilizer requirements in Rwanda are met through imports because the country has no local production of fertilizers. Fertilizer imports evolved from 1,344 tons in 1995 to 9,039 tons in 2006. Prior to liberalization, the importation of fertilizer was assured by parastatals through Kenya and Uganda. Between 1998 and 2005, fertilizer was entirely imported by the private sector. As of November/December 2006, there were three types of fertilizer importers operating in Rwanda: (a) importers supplying primarily to tea and coffee parastatals against confirmed orders; (b) importers buying in small lots from neighboring countries to satisfy the local demand; and (c) Government of Rwanda (GOR) importing in large quantities for distribution to all categories of customers. The major fertilizer importers are located in Kigali for the most part while few importers/traders can be found in Mudasomwa (former Gikongoro Prefecture) in south Rwanda and in Ruhengeri. Fertilizer is generally procured, in small consignments of 2,000-2,500 tons from fertilizer traders in Uganda, Kenya, Mauritius, South Africa, Dubai, Jordan, and China. The imports by OCIR-Thé are comparatively of larger volumes, averaging 5,000 tons since the year 2000. The distance from the nearest seaports to Rwanda is in the range of 1,500-2,000 km. The mode of transport from seaports in Tanzania, Kenya, and Uganda to Kigali and Bujumbura is mostly by truck.

Kelly et al (2001) estimated that less than 5% of farmers use fertilizer on less than 3 percent of cultivable land area in Rwanda. The current fertilizer application rate in Rwanda is among the lowest in Africa. Average fertilizer use intensity amount to a mere 8 kilograms of nutrients per hectare compared to the Continent and Asia's average of 10 and 148 kilograms per hectare, respectively. The results of decades of studies and assessments (IFDC, 2007; Donovan et al., 2002; Bingen and Munyankusi, 2002; Kelly et al, 2003) into the fertilizer situation in Rwanda indicate that the low fertilizer use and application rates are a result of several demand and supply-side constraints.

Demand-Side Constraints

In Rwanda, farmers' demand for fertilizers is extremely weak, as it is essentially constrained by inadequate incentives and lack of financial capacity to invest in fertilizer. Inadequate incentives stem from the minimal profitability of fertilizer use because:

- (i) Fertilizer use effectiveness is low since the quality and quantity of information available on fertilizer (dosage; application rate) is inadequate and most farmers are unable to afford or access the comprehensive package of complementary practices needed to get the most out of the fertilizer (e.g., improved seeds);
- (ii) The range of available fertilizers is fairly small.
- (iii) The quality of fertilizers is perceived by farmers as being poor. Farmers often attribute the lack of visible increases in yields from the application of fertilizer to its poor quality. However, one doesn't know if the poor results are in fact due to (a) poor quality of fertilizer; (b) the application of the wrong type of fertilizer for soil and crop; and/or (c) inadequate dosage .
- (iv) Most soils are acid and fertilizer use is not targeted.
- (v) The cost of getting fertilizer to the farm gate at the right time is excessively high, as several communities are completely isolated with no access to roads.
- (vi) Access to output markets is not guaranteed and output prices are generally low and variable because there's limited effective output marketing.

In addition, farmers' purchasing power is extremely weak. In any given year, 30 to 50 percent of farming households in Rwanda fail to produce a marketable surplus. Adding to this is a dearth of access to credit for the acquisition of fertilizer and other inputs because farmers' knowledge of lending institutions and loan application procedures is inadequate; the agricultural sector is often considered insolvent and is seen as a high-risk sector; collateral requirements are stringent (100 % of loan value); interest rates are extremely high (up to 30%); the length of loans is very short (average of 3 months); loan repayment begins from the time the loan is issued, assuming that farmers are involved in off-farm activities as alternative sources of income; and lending institutions are largely concentrated in Kigali with the exception of Peoples Bank. The Rwanda Bank of Development (BRD) has instituted in 2006 a Government initiative, which entails providing loans to qualified farmers' organizations for the purchase of fertilizer at an interest rate of 8 percent, to encourage fertilizer use. Although the initiative has resulted in improved access to credit for the acquisition of fertilizers for well-organized producers' organizations, many still fail to meet the BRD's terms and conditions for obtaining loans. Besides, even when farmers have enough income to purchase fertilizer, it might not be available at all or in sufficient quantity and good quality at the opportune time.

Furthermore, the capacity of research and extension systems to transfer adequate knowledge to farmers about the proper use of fertilizer remains fundamentally inadequate in Rwanda. The shortcomings in the national research capacity, compounded by outdated fertilizer recommendations, little know-how and the lack of technological innovations, and dearth of scientists are important constraints in the promotion of fertilizer use. In 2001, through the decentralization process, the role of the Ministry of Agriculture (MINAGRI) became one of policy and strategy formulation. Since February 2005, extension services have become the responsibility of two semi-autonomous bodies under MINAGRI: the Rwanda Agricultural Development Authority (RADA) and Rwanda Animal Resources Development Authority (RARDA). These institutions have the mandate to conduct all promotional activities. However, they critically lack the technical and financial capacity to disseminate knowledge to the farming community. At the district level, there is a strong requirement for human capacity building for extension workers. As a result, farmers throughout the country lack knowledge on the safe and proper use of fertilizer and its suitability to their cropping purposes.

Supply- Side Constraints

The factor most often cited as limiting Rwanda's farmers access to fertilizer is the high cost of fertilizer. Whether the high cost of fertilizer is rightly justified is an issue that is constantly being debated. Generally, the farm-gate price of fertilizer is determined by the world price of fertilizer, cost of procurement, storage, transport and marketing, the degree of competition in the fertilizer market and the quantity of fertilizer demanded¹. The implication for Rwanda, whose demand

¹ The world price of fertilizer is in turn primarily determined by the supply and demand for fertilizer in international markets, which are in turn a function of the costs of production (fixed costs, operating costs and costs of raw materials (natural gas, rock phosphate and potash), the price of food crops (e.g. corn) and macroeconomic uncertainty related to the allocation of foreign exchange resources required for fertilizer imports. Therefore, changes in the price of natural gas and other raw materials and changes in the production capacity or the number of firms in the market, through opening or closure of fertilizer production plants, can lead to increases/decreases in their prices. Moreover, changes in the world prices of food and feed crops, such as corn and wheat, have a direct impact on the price of fertilizer, since they provide incentives to farmers to increase/decrease production through more/less use of

has no impact on the world price for fertilizer, is that the country is essentially a price-taker. Therefore, the fluctuations and increasing trend in energy prices over the last few years and the ethanol boom are all translating into large variations and a generally-increasing trend in the price of fertilizer. Such effects are directly passed on to Rwanda's fertilizer importers, who for the large part, critically lack information on world market conditions affecting fertilizer prices and are therefore severely constrained in their bargaining position with overseas suppliers.

An examination of the fertilizer distribution system in Rwanda indicates that its performance and functioning remains weak due to the followings:

- i) **Low, irregular and dispersed demand for fertilizer:** as mentioned earlier, average fertilizer application rates are 8 kg/ha in Rwanda. Farming is still predominantly subsistence, with an average farm size of 0.8 ha, which continues to decline as a result of population pressure and intensive erosion. Most farmers in Rwanda have limited participation in the market economy; 30% to 50% of the rural population on a given year may not produce a marketable surplus. Agricultural intensification has been mainly limited to high value cash crops such as coffee and tea. Fertilizer demand varies considerably from year to year depending on the outcomes of the previous season, in terms of yields and crop prices.
- ii) **Lack of Access to Finance:** The fertilizer business is inherently very capital intensive, as it requires huge financial investments. Traders' profit margins are low due the small volume of fertilizer traded, low stock turnover and associated high storage/warehousing costs. Banking services in Rwanda are essentially provided by six commercial banks, the Banque Rwandaise de Development (BRD), the Rwandan Union of Popular Banks (UBPR) or Peoples Bank, and several Microfinance Institutions (MFIs). These institutions operate in an environment characterized by macroeconomic instability, weak legal systems and a dearth of credit information². As a result, access to finance is extremely difficult for fertilizer traders. A small number of fertilizer traders are able to obtain Letters of Credit from commercial banks. Such loans must be repaid within 3-6 months, require a payment of 3% in bank fees, 18% interest rates and guarantees that can amount to 200 percent of the value of the loan. Several existing initiatives and projects from donors and the GOR that seek to increase the volume of loans to the agricultural sector, are hampered by bureaucratic bottlenecks and a rigid loan review system that make them inaccessible to many fertilizer traders. Although microfinance facilities are widely available in the regions, the size of their loans is inadequate. As a result, fertilizer traders have limited access to finance for investing in the input business. The majority relies on their business funds to procure inputs, which limits the size of their orders, immobilizes

productivity-enhancing inputs. Finally, fertilizer prices in the short run are also affected by the purchases of large buyers such as China, India, Brazil and recently Iran.

² World Bank Doing Business (2006) indicators indicate that property registration requires the completion of five procedures, taking an average of 371 days and costing 9.6% of the property value. The Legal Rights Index (ranges from 0 to 10), with higher scores indicating that those laws are better designed to expand access to credit, is 1 in Rwanda. The Credit Information Index² (ranges from 0 to 6), with higher values indicating that more credit information is available from a public registry or private bureau, is 2. To enforce commercial contracts in Rwanda, banks would need to engage in 27 types of procedures, taking an average of 310 days, and costing 43.2% of debt.

their funds and renders the investment unattractive given the modest margins. It also limits their ability to extend credit to wholesalers and retailers.

- iii) **High Marketing Costs:** The ratio of farm-gate price to CIF is 2.78, implying that inland marketing costs are almost 3 times higher than the landed cost of fertilizer. Freight costs to Mombassa or Dar Salem usually amount to \$49 per ton (approximately \$588,000 for a vessel with a capacity of 12,000 tons). Inland transportation costs alone account for 27 percent of the farm-gate price, averaging \$180 per ton. Typical dealer costs and margins are in the order of \$25/ton. Storage/warehousing costs are in the order of \$20/ton.
- iv) **Lack of Market Information Systems:** The current system of collection and dissemination of information on availability and market price of inputs and crop produce in domestic, regional and international markets is inadequate or inexistent. As a result, traders and farmers are always in a weak bargaining position since they lack information on current market conditions.
- v) **Heavy Institutional Constraints:** *First*, laws and regulations of direct consequence for fertilizer marketing, including registration procedures, packaging and labeling requirements, quality control measures (e.g., pre-shipment inspection and final retail inspection and enforcement), are critically inadequate. Traders need to submit 14 types of documents in order to import goods. It takes an average of 94 days in Rwanda from the time contractual agreements are signed to when the goods are delivered (World Bank, 2006). All formalities related to custom clearance, quality inspection, interim-storage, outward movement to customer stores, and secondary movement to dealers/retailers/co-ops/farmer organizations, etc., are to be completed in the only one dry port in the country, Kigali. Such a situation results in overuse and congestion of facilities, delays in delivery of fertilizers, and adds to the cost of fertilizer importation. Although the Rwanda Bureau of Standards (RBS) has drafted fertilizer specifications (requirements for nutrient content; testing; labeling; packaging), these have yet to be finalized, published, disseminated to stakeholders and enforced. RBS essentially attempts to enforce truth-in-labeling requirements but critically lack the technical resources to speedily inspect imported fertilizers. As a result, the inspection process may take up to a month, resulting in importers paying warehousing surcharges and delaying the delivery to farmers. *Second*, legal systems in Rwanda are rigid, with lengthy statutorily based processes that create uncertainty with respect to the predictability, speed, and fair enforcement of contracts. The costs involved in the enforcement of contracts deter lending institutions from providing loans and decrease agricultural entities' incentives to repay loans. The prevalence of such non-conducive environments within which lending institutions operate in Rwanda translates into a small and weak banking sector, ineffective financial systems, and a small supply of agricultural credit.
- vi) **Inadequate Knowledge and Lack of Business Skills:** There is a considerable shortage of critical human resources in the area of agribusiness development in Rwanda. The number of importers, wholesalers, and retailers involved in the fertilizer

supply chain in Rwanda is very small. This considerably limits the availability and accessibility of inputs in rural areas because most farmers have to travel more than 20 km to purchase inputs. In addition, agri-input traders lack knowledge of the products they market and of banking procedures, limiting their ability to advise farmers and their capacity to access credit. Finally, traders' marketing and business skills (demand forecasting, business plan development, and record keeping) are weak, which is a crucial constraint to business development.

- vii) **Uncertain Policy Environment:** The high transaction costs involved in the fertilizer sector translate into the high price of fertilizer, and its unavailability in adequate quantity and quality at the right time in rural households. These outcomes are often judged by the Government as an indication of the private sector weak capacity to meet the national demand for fertilizer, providing justification for the Government's intervention in the fertilizer sector. In 2006, the GOR, with the support of Clinton Foundation, arranged the procurement and importation of 28,000 tons of fertilizer for the 2-year period 2006-08. The government aimed to stimulate the demand for fertilizers. Previous programs, such as the World Bank's Agricultural and Rural Market Development Project³, had demonstrated that fertilizer use could be taken up on a nationwide scale, especially for Irish potatoes and maize. Fertilizer use was found to be profitable (Value Cost Ratio >2) for these crops in DAP + urea treatments. As of December 2006, the fertilizer procured by MINAGRI had been offered for sale at fixed prices at an ex-Kigali warehouse to all stakeholders including cooperatives, private dealers, producer associations, and tea and coffee parastatals. The private sector showed minimal interest in purchasing fertilizer from the government because the selling price was uniform regardless of the quantity purchased. While the effects of this intervention remain to be ascertained, what is clear is that the private-sector operators now view the sector with greater risk and uncertainty.

³ This program was implemented between 2000 and 2004 to facilitate access to credit for modern farm inputs; provide technical advisory services to farmers on the use of modern farm inputs; encourage the emergence of a sustainable modern input import and distribution system; and encourage investments by private traders in marketing services in rural areas. The project established a Line of Credit to mobilize the private sector in the import and distribution of inputs to farmers; an Input Credit Insurance Facility (ICIF) to provide incentives to private traders to sell fertilizers on credit; and a Small Farmer Input Credit Facility-revolving fund (SFICF) to ensure broad access to credit to farmer groups. Complementary activities included advisory services to farmers, producers' organizations, and specialized local organizations for the adoption of modern inputs and access to credit and multiplication and distribution of improved seeds. Training programs and demonstrations were also conducted to improve farmers' technical knowledge of modern inputs. The project was temporarily successful in promoting private sector-based fertilizer distribution systems in Rwanda. It resulted in an increase in the number of importers of agricultural inputs from 5 to over 30. However, the credit facilities were not fully utilized because (a) the information about their existence wasn't properly disseminated to project stakeholders and beneficiaries, (b) banks were still lending at high interest rates, and (c) the rigid lending procedures discouraged the participation of several trader and farmer associations.

III. Strategy for Developing Fertilizer Distribution Systems in Rwanda

3.1. Objectives

The Strategy for Developing Fertilizer Distribution Systems (SDFDS) in Rwanda describes the Government's plans to develop the fertilizer sector by establishing market-based mechanisms to improve fertilizer distribution systems and thereby address Rwanda's fertilizer challenge. The strategy's vision is the establishment of a distribution system that enables the right product to be delivered at the right time in sufficient quantities and at the most cost-effective manner by a competent and profitable private sector. Its overall goal is to increase fertilizer use and application rates from the current average of 8 kilograms per hectare to 25 kilograms per hectare by 2011 and thereby achieve the CAADP target of 8 percent agricultural growth and significantly reduce poverty in rural areas. The key objectives of the SDFDS are to:

- Identify short- and long-term measures needed to address supply and demand-side constraints limiting fertilizer use in Rwanda.
- Assign responsibilities among the relevant stakeholders.
- Establish a time-frame for implementation of the strategy
- Identify performance indicators for assessing the impact of the actions on national growth, food security and poverty objectives
- Estimate the cost of implementing the strategy

3.2. Guiding Principles

The Strategy uses the *Abuja's Declaration on Fertilizer for the African Green Revolution*⁴ (Annex 1) as guiding principles for the development of the fertilizer sector in Rwanda. These recommendations also coincide with the Government of Rwanda's objectives for the agricultural sector, as articulated in its Vision 2020, the Economic Development and Poverty Reduction Strategy, the National Agricultural Policy, and the Strategic Plan for Agricultural Transformation.

3.3. Priority Actions

The SDRFS puts forward three priority actions to improve fertilizer distribution systems in Rwanda and increase the availability, accessibility and affordability of fertilizer to farmers. These actions are:

⁴ The *Abuja's Declaration on Fertilizer for the African Green Revolution* was adopted on June 13th, 2006 by more than 40 Heads of State and Governments at the conclusion of the Africa Fertilizer Summit. The Declaration puts forward 12 key recommendations, which when implemented, should trigger Africa's Green Revolution. The most important element of the Declaration is a resolution by African leaders to accelerate the timely access of farmers to fertilizers by declaring "*fertilizer, from both inorganic and organic sources, a strategic commodity without borders.*" The Abuja Declaration calls on African Governments, Regional Economic Communities (RECs), private sector, and Development partners to take specific necessary steps and actions by 2015.

- a) Develop Enabling Policy, Regulatory, and Investment Environments for Fertilizer Market Development.
- b) Strengthen the Capacity of the Private Sector to Timely Supply Quality Fertilizer in a Cost-Effective Manner.
- c) Stimulate the Demand for Fertilizer.

3.3.1. Priority Action 1: Develop enabling policy, regulatory, and investment environments for fertilizer market development

Objective:

To create a private sector-led fertilizer sector by reducing risks, uncertainties, and transactions costs prevailing in the fertilizer sector

Rationale:

Fertilizer market development begins with the establishment of an enabling policy, regulatory and investment environment to mobilize private sector capital for increased fertilizer supply. The importance of improving the policy, regulatory and investment environments stems from their effects not only on reducing risks, uncertainties and transaction costs prevailing in the fertilizer market but also on providing adequate incentives for increased investment to the private sector.

Activities:

- a. Reduce non-tariff trade barriers
- b. Establish and enforce a legal and regulatory frameworks for fertilizers
- c. Improve the lending environment
- d. Forecast the national demand for fertilizer
- e. Establish a Fertilizer Market Transparency and Information System
- f. Increase investments in rural roads and marketing infrastructure

3.3.2. Priority Action 2: Strengthen the Capacity of the Private Sector to Supply Quality Fertilizer in a Cost-Effective Manner

Objective:

To improve the availability of fertilizer in rural households by developing traders' capacity to supply quality inputs

Rationale:

In a liberalized and competitive fertilizer market, the private sector bears the responsibility of fertilizer procurement, distribution and even farm advisory activities; all functions which were and still are assumed by the Government of Rwanda. Without investments to develop the private sector's capacity (technical and financial) to effectively assume this role, issues such as unavailability and inaccessibility of fertilizers in rural areas will persist and the goals of

agricultural intensification will stretch further away. Direct technical assistance to fertilizer traders in performing functions such as import procurement, demand forecasting, product selection, business planning, loan portfolio management, credit assessment, and fertilizer promotion, will better equip the private sector to supply quality fertilizer at affordable prices in Rwanda.

Activities:

- a. Progressively transfer fertilizer procurement and distribution functions to the private sector
- b. Encourage association development through the Rwanda Private Sector Federation
- c. Registration of fertilizer importers/distributors and retailers.
- d. Develop a coordinated and comprehensive technical training program for the private sector
- e. Improve access to business finance
- f. Develop an efficient fertilizer supply chain and market linkages
- g. Improve logistics management including warehousing and transport coordination

3.3.2. Priority Action 3: Stimulate the Demand for Fertilizer

Objective:

To strengthen farmers' incentives and capacity to use fertilizer

Rationale:

Stimulating farmers' demand for fertilizer, through intense technology promotion activities, is a crucial and necessary step towards agricultural intensification to provide them with incentives to use fertilizer. Without adequate incentive mechanisms instilled from the beginning, the use of fertilizer will remain concentrated on cash crops and the fertilizer supply system will remain underdeveloped, as greater demand is the main driver of change in the fertilizer supply system. There is ample evidence that **increasing the yields of staples will produce the highest levels of contribution to agricultural incomes and poverty reduction**, as an additional 1 percent annual growth in staples yield would generate a marginal income of \$80 million and a 0.5 percent decline in relative poverty (NEPAD, 2007). Once farmers' demand for productivity-enhancing inputs has been stimulated, the focus must move towards strengthening their capacity to access fertilizer. This would involve the transfer of technical and business knowledge coupled with improved access to credit and output markets.

Activities:

- a. Revise fertilizer recommendations through a participatory approach
- b. Build farmers' capacity to use and access fertilizer
- c. Promote investment in lime as a key amendment
- d. Establish voucher systems
- e. Promote fertilizer use through both public and private sectors
- f. Build capacity of extension service personnel
- g. Encourage and train private sector to introduce small packs of fertilizer

- h. Establish Structured Commodity Finance Facilities
- i. Establish linkages with agro-processing industries

3.4. Implementation Strategies

The approach for implementing the Strategy, including priority actions, specific activities, key players, performance indicators and time frame are provided in the matrices below.

A National Fertilizer Advisory Committee, consisting of representatives from MINAGRI, donors, private sector and producers' organizations, will be created to ensure the effective implementation of the National Fertilizer Strategy and rolling out the SDFDS through the implementation of the proposed priority actions. This committee will be responsible for sequencing activities, establishing a time frame and funding requirements, and designating the implementing agencies.

Priority Action 1: Develop enabling policy, regulatory, and investment environments for fertilizer market development			
Activities	Key Players	Performance Indicators	Time Frame
<p>1. Reduce non-tariff trade barriers</p> <p>a. Streamline and simplify procedures for obtaining trade licenses, applications for import permits, customs, the number of documents required to import.</p> <p>b. Harmonize fertilizer trade policies and regulations within the East African and Southern African Development Communities</p>	<p>MINAGRI, Rwanda Bureau of Standards, MAGERWA, Chamber of Commerce, MINICOM, MINECOFIN</p>	<ul style="list-style-type: none"> ● # of days to obtain trade license/import permit ● # of days to import ● # of documents required to import 	<p>1-3 years</p>
<p>2. Establish and enforce legal and regulatory frameworks for fertilizers</p> <p>a. Formulate fertilizer regulations</p> <p>b. Enact and enforce fertilizer law and regulatory system (product definitions; registration of businesses and products; licensing requirements; labeling requirements; inspection fee; definition of violations; system of penalties)</p> <p>c. Train quality control enforcement staff</p> <p>d. Enforce truth-in-labeling</p> <p>e. Initiate the registration of all fertilizers imported in the country</p> <p>f. Strengthen the capacity of the Rwanda Bureau of Standards in testing fertilizer samples and enforcing quality control mechanisms at national borders and in rural markets.</p> <p>g. Establish customs in several strategic delivery points</p> <p>h. Streamline and simplify procedures for registration of fertilizer businesses</p>	<p>MINAGRI, RBS , MINICOM</p>	<ul style="list-style-type: none"> ● Fertilizer law enacted ● # of RBS staff trained ● % increase in fertilizer analysis equipment ● # of fraudulent products intercepted ● # of complaints from farmers about fertilizer quality ● # of documents required to register ● # of days to inspect and release imports 	<p>6 months – 1 year</p>

<p>3. Improve the lending environment</p> <p>a. Induce banking sector reforms to tailor lending terms and conditions to the needs of farmers and traders.</p> <p>b. Provide incentives (tax exemptions) to banks for establishing branches in rural areas.</p> <p>c. Simplify the loan review system, especially for the Agricultural Guarantee Fund.</p> <p>d. Promote competition among banks through dissemination of information on lending terms and conditions</p> <p>e. Establish a Credit Information System within the National Bank of Rwanda</p> <p>f. Improve loan recovery through an effective legal system</p> <p>g. Institute an effective enforcement procedure and corrective measures</p>	<p>MINAGRI, BNR, BRD, Commercial Banks, Ministry of Justice</p>	<ul style="list-style-type: none"> ● # of training sessions organized between banks, producers' organizations and traders' associations. ● # of new bank branches opened outside the capital city. ● # and amount of loans granted to farmers and traders under the AGF mechanism. ● % reduction in interest rates for farmers and traders ● % reduction in time and cost banks spend to obtain credit information on borrowers ● % increase in loan recovery rate 	<p>1-3 years</p>
<p>4. Forecast the national demand for fertilizer</p> <p>a. Examine the effective demand for fertilizer</p> <p>b. Strengthen the capacity of producers' organizations in expressing fertilizer needs</p> <p>c. Prepare an annual fertilizer supply plan</p>	<p>MINAGRI, Producers' Organizations</p>	<ul style="list-style-type: none"> ● estimation of current and forecast of national fertilizer demand 	<p>2 months</p>
<p>5. Establish a Fertilizer Market Transparency and Information System</p> <p>a. Identify ongoing pertinent activities</p> <p>b. Publish and disseminate a Monthly Fertilizer Market Outlook</p>	<p>MINAGRI, Identified Stakeholders</p>	<ul style="list-style-type: none"> ● % reduction in fertilizer procurement costs 	<p>1 year</p>

<p>6. Increase investments in rural roads and marketing infrastructures</p> <p>a. Identify roads, warehouses (or sites) and storage facilities</p> <p>b. Complete logistics requirements</p> <p>c. Build or rehabilitate roads and facilities</p> <p>d. Rent storage infrastructure to the private sector and/or provide tax incentives to the private sector for building storage infrastructure at the district level</p>	<p>GOR, Ministry of Transportation, Donors</p>	<ul style="list-style-type: none"> • # of facilities established • km of roads constructed or rehabilitated • % reduction in transport costs • % reduction in fertilizer price 	<p>1-5 years</p>
<p>Priority Action 2: Strengthen the capacity of the private sector to timely supply quality fertilizer in a cost-effective manner</p>			
<p>Activities</p>	<p>Key Players</p>	<p>Performance Indicators</p>	<p>Time Frame</p>
<p>1. Progressively transfer fertilizer procurement and distribution functions to the private sector</p> <p>a. Draft a strategic plan for the progressive withdrawal of the Government from procurement and distribution activities.</p> <p>b. Validate the Government plan for the fertilizer sector in consultation with the private sector.</p> <p>c. Disseminate Government's commitments to markets to all stakeholders.</p> <p>d. Integrate Government imports with commercial imports by selling stocks to the private sector at cost with option to buy ex-Dares Salam, ex-Isaka or ex-kigali.</p> <p>e. Establish consistency and trust in market liberalization policies.</p> <p>f. Develop a charter of partnership between the Government and the private sector</p> <p>c. Create a National Fertilizer Advisory Committee to monitor the effective implementation of the National Fertilizer Strategy</p>	<p>MINAGRI, Private Sector, Producers' Organizations</p>	<ul style="list-style-type: none"> • # of policy distortions removed • # of policy dialogues conducted • % increase in the quantity of fertilizer imported by the private sector • # of participants attending meetings • National Fertilizer Advisory Committee established and functional • Improved policy environment for agricultural input market development 	<p>6 months – 2 years</p>

<p>2. Encourage association development through the Rwanda Private Sector Federation</p>	<p>MINAGRI, Private Sector</p>	<ul style="list-style-type: none"> • fertilizer traders’ association operationalized • # of due paying members 	
<p>3. Registration of all fertilizer importers/distributors and retailers</p>	<p>MINAGRI, Private Sector, Chamber of Commerce</p>	<ul style="list-style-type: none"> • knowledge of the exact number of fertilizer traders in Rwanda 	
<p>4. Develop a coordinated and comprehensive technical training program for the private sector</p>	<p>MINAGRI, Private Sector/ RPSF, Producers’ Organizations</p>	<ul style="list-style-type: none"> • # of training programs organized • # of traders certified 	
<p>5. Improve access to business finance a. Establish a Revolving Fund for fertilizer importers b. Facilitate access of importers to the Agricultural Guarantee Fund</p>	<p>Commercial Banks, BNR, MINAGRI</p>	<ul style="list-style-type: none"> • # of training sessions organized • # of traders attended • # and amount of loans granted to traders • % reduction in collateral requirements • % increase in fertilizer imports 	<p>3 to 12 months</p>
<p>6. Develop an efficient fertilizer supply chain and market linkages a. Strengthen the capacity of all stakeholders b. Develop charters for fertilizer importers/wholesalers, wholesalers/dealer, retailers in Rwanda c. Establish provincial level warehouses d. Establish village-level proximity centers at harvest delivery points to sell fertilizers at harvest e. Encourage private sector based extension system f. Coordinate fertilizer imports and exportations to eliminate truck backhauling costs g. Strengthen business and market linkages in the regional context h. Link local importers to international suppliers</p>	<p>MINAGRI, Private Sector, Chamber of Commerce, Transporters, IFDC/CATALIST, Producers’ Organizations</p>	<ul style="list-style-type: none"> • # of traders certified by IFDC • # of warehouses established • distance traveled by farmers to purchase fertilizer • # of demonstrations conducted by the private sector • # of workshops organized • # of participants attended • # of business linkages developed with regional traders • % reduction in transport costs • % reduction in fertilizer procurement cost • % reduction in fertilizer price 	<p>6- 12 months</p>
<p>7. Improve logistics management including warehousing and transport coordination</p>	<p>MINAGRI, Private Sector, Transporters</p>	<ul style="list-style-type: none"> • % reduction in fertilizer delivery and clearance time 	

Priority Action 3: Stimulate the demand for fertilizer			
Activities	Key Players	Performance Indicators	Time Frame
<p>1. <i>Revise fertilizer recommendations through a participatory approach</i></p> <p>a. Review existing recommendations b. Strengthen ISAR technical and financial capacity c. Conduct participatory identification of bottlenecks, formulation of solutions, testing/adaptation and introduction of updated recommendations d. Introduce and disseminate adapted recommendations</p>	MINAGRI, ISAR, Producers' Organizations	<ul style="list-style-type: none"> • crop and region specific recommendations developed and disseminated 	up to 2 years
<p>2. <i>Build farmers' capacity to use and access fertilizer</i></p> <p>a. Transfer technical and business skills to producers' associations b. Strengthen producers' organizations capacity to access credit (organization; solidarity cautions; loan application; debt repayment) c. Promote the use of Integrated Soil Fertility Management using a participatory approach</p>	MINAGRI, RADA, Producers' Organizations	<ul style="list-style-type: none"> • # of training programs organized • # of participants attended • # and amount of new loans granted to producers' organizations • # of agri-business clusters created • # of commodity chains developed • % increase in yield 	3-9 months
<p>3. <i>Promote investments in lime as a key amendment</i></p> <p>a. Organize and strengthen the capacity of producers' organizations in lime production b. Establish a mechanism to promote lime use</p>	MINAGRI, RADA, Producers' Organizations	<ul style="list-style-type: none"> • % increase in the production and use of lime 	
<p>4. <i>Establish voucher systems</i></p> <p>a. Design voucher schemes based on identification of target population needs b. Identify areas for construction of roads and terraces c. Identify dealers to act as distribution points d. Link HIMO activities with fertilizer use</p>	MINAGRI, Helpage, Community Development Fund, IFDC/CATALIST, Producers' Organizations	<ul style="list-style-type: none"> • % reduction in soil erosion • % reduction in transport costs • % increase in the # of farmers using fertilizer and improved seeds • fertilizer use intensity • % increase in yields 	3-9 months
<p>5. <i>Promote fertilizer use through both public and private sectors</i></p>	MINAGRI, RADA, Producers'	<ul style="list-style-type: none"> • # of extension agents trained • # of farmers' field schools 	3-9 months

<p>a. Strengthen the capacity of extension service personnel</p> <p>b. Strengthen the capacity of retailers/dealers to serve as private extension agents</p> <p>c. Strengthen the capacity of producers' organizations in market development; establish multiple fertilizer selling points close to farmers</p> <p>d. Develop crop and region-specific technology packages</p> <p>e. Calculate the profitability of fertilizer use by region and crop and disseminate results to farmers</p> <p>f. Establish demonstration sites</p> <p>g. Produce and disseminate technical promotion material (posters; flyers; radio announcements)</p> <p>h. Promote commodity chain development (e.g., crops with high value cost ratios--potato; maize; rice)</p>	Organizations	<p>organized</p> <ul style="list-style-type: none"> ● # of field days conducted in established demonstration sites ● # of market day demonstrations organized ● # of technical promotion material produced ● computed the profitability of fertilizer use by crop and region ● disseminated the results of fertilizer profitability analysis to farmers 	
<p>6. Build capacity of extension service personnel</p>	MINAGRI, RADA, ISAR	<ul style="list-style-type: none"> ● # of extension agents trained ● ratio of farmers to extension agent 	
<p>7. Encourage and train private sector to introduce small packs of fertilizer</p>	MINAGRI, RADA, RPSF	<ul style="list-style-type: none"> ● pack of 7 kg of fertilizer are marketed 	3-9 months
<p>8. Establish Structured Commodity Finance Facilities in partnership with Micro Finance Institutions</p> <p>a. Training in warehouse receipt systems (WRS)</p> <p>b. Promote the warehouse receipt system at community and village-level</p>	MINAGRI, MFIs, Donors, Producers' Organizations	<ul style="list-style-type: none"> ● # of SCFF established ● # of farmers involved in the WRS ● # of warehouse receipts issued ● % increase in farmers' income 	1 year
<p>9. Establish linkages with agro-processing industries</p> <p>a. Organize workshops to bring Producers' Organizations and agro-processing industries together and develop business linkages.</p> <p>b. Improve the dissemination of market information on product markets</p>	MINAGRI, Producers' Organizations; Agro-Processing Industries; Donors	<ul style="list-style-type: none"> ● # of workshops organized ● # of participants attended ● # of business linkages developed (contracts) ● % increase in yields 	3-6 months

IV. Impact Pathways: Contribution of the Strategy to Rwanda's Short and Long-Term Objectives

The effective implementation of the actions outlined in the Strategy will contribute directly to the achievement of the country's short and long-term objectives of growth and development, as outlined in the Vision 2020, CAADP, and Strategic Plan for Agricultural Transformation under the Economic Development Poverty Reduction Strategy (EDPRS). EDPRS puts forward the following four and related activities/objectives:

Programme 1: Intensification and Development of Sustainable Production Systems

- 1.1. Sustainable Soil Conservation
- 1.2. Marshlands Development
- 1.3. Irrigation Development
- 1.4. Support for the Supply and Utilization of Agricultural Inputs
- 1.5. Improvement and Diversification of Animal Production
- 1.6. Improvement of Food Access and Vulnerability Management

Programme 2: Support to the Professionalisation of Producers

- 2.1. Promotion of Farmers' Organizations and Capacity Building of Producers
- 2.2. Restructuring of Services to Producers and Rural Innovation
- 2.3. Promotion of Research for Development
- 2.4. Rural Financial Systems and Agricultural Credit Development

Programme 3: Promotion of Commodity Chains and Development of Agribusiness

- 3.1. Creation of an Environment Conducive to Business and Entrepreneurship Development
- 3.2. Promotion and Development of Specialty Crops
- 3.3. Transformation and Competitiveness of Agricultural and Animal Products
- 3.4. Development of Rural Infrastructure

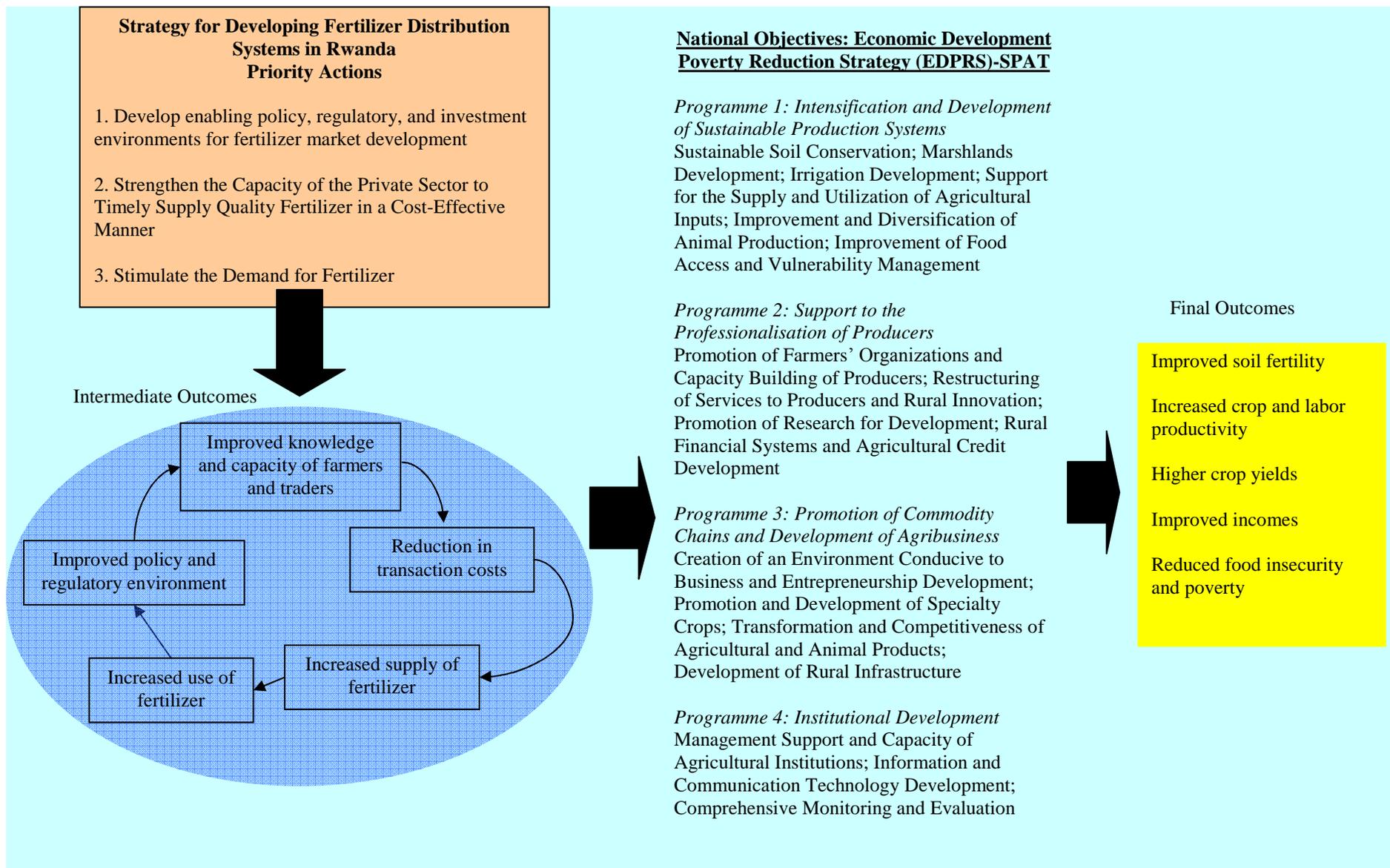
Programme 4: Institutional Development

- 4.1. Management Support and Capacity of Agricultural Institutions
- 4.2. Information and Communication Technology Development
- 4.3. Comprehensive Monitoring and Evaluation

Removal of supply and demand-side constraints in the fertilizer sector through policy improvement, demand stimulation and capacity building activities will provide a favorable investment climate and adequate human capital for fertilizer distribution system development. The resulting reduction in transaction costs and strengthened availability, access and affordability of fertilizer in rural areas will constitute a stepping stone towards sustainable intensification of agricultural, household food security and poverty reduction in rural areas.

Figure 1 below illustrates the impact pathways through which the actions prescribed in the Strategy will bring Rwanda closer to achieving an 8 % average annual growth in the agricultural sector and a reduction of the poverty level from the current level of 64 percent to 30%.

Impact Pathway Chart



V. Budget Requirements (over a three year period)

Actions	Provisional Budget
Priority Action 1: Develop an Enabling Policy, Regulatory, and Investment Environments for Fertilizer Market Development	1 Million USD
Priority Action 2: Strengthen the Capacity of the Private Sector to Timely Supply Quality Inputs at Affordable Prices	5 Million USD
Priority Action 3: Stimulate the Demand for Fertilizer	3 Million USD

VI. Conclusions

The increased and judicious use of fertilizer is necessary to achieve sustainable increases in agricultural productivity necessary to meet the CAADP target of 8 percent annual agricultural growth and achieve the first Millennium Development Goal of halving poverty and hunger by 2015 in Rwanda. The Strategy for developing fertilizer distribution systems in Rwanda is a critical document in the country's quest for these objectives, as it provides a blueprint for addressing the demand and supply-side constraints limiting the fertilizer use in Rwanda. The overall goal of the Strategy is to increase fertilizer use and application rates from the current average of 8 kilograms per hectare to 25 kilograms per hectare by 2011 and thereby achieve the CAADP target of 8 percent agricultural growth and significantly reduce poverty in rural areas.

Effective implementation of the Strategy short- and long-term measures will improve the availability, accessibility and affordability of fertilizer to farmers through the strengthening and greater market orientation of the private sector. This process constitutes a stepping stone for achieving national objectives outlined in the Vision 2020, CAADP, the National Agricultural Policy, the Economic Development Poverty Reduction Strategy and the Strategic Plan for Agricultural Transformation.

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ANNEX 1. The Abuja Declaration on Fertilizer for the African Green Revolution

AFRICA FERTILIZER SUMMIT AFRICAN UNION SPECIAL SUMMIT OF THE HEADS OF STATE AND GOVERNMENT

ABUJA, NIGERIA, 13 JUNE 2006

ABUJA DECLARATION ON FERTILIZER FOR THE AFRICAN GREEN REVOLUTION

The New Partnership for Africa's Development has declared that the vision of economic development in Africa must be based on raising and sustaining higher rates of economic growth (7 percent per year). To realize this vision, the African Heads of State and Government adopted the Comprehensive Africa Agricultural Development Programme, which calls for a 6% annual growth in agricultural production, as a framework for the restoration of agricultural growth, food security and rural development in Africa.

Africa's farmers face a variety of constraints including low productivity, limited access to new agricultural technologies and weak markets. Without adequate inputs, farmers often cannot meet the food needs of their own families, much less those of a rapidly growing population. To feed themselves and their countries, farmers will need to shift from low-yielding, extensive land practices to more intensive, higher-yielding practices, with increased use of improved seeds, fertilizers and irrigation.

A move toward reducing hunger on the continent must begin by addressing its severely depleted soils. Due to decades of soil nutrient mining, Africa's soils have become the poorest in the world. It is estimated that the continent loses the equivalent of over \$4 billion worth of soil nutrients per year, severely eroding its ability to feed itself. Yet farmers have neither access to nor can they afford the fertilizers needed to add life to their soils. And no region of the world has been able to expand agricultural growth rates, and thus tackle hunger, without increasing fertilizer use.

In Africa, use of fertilizer averages only eight kilograms per hectare. In short, Africa is trapped in a fertilizer crisis; this is only 10% of the world average. Addressing Africa's fertilizer crisis therefore requires urgent and bold actions. Africa is ready for the Green Revolution. Today, African leaders have convened to show their strong and unanimous commitment to achieving the African Green Revolution by taking immediate actions to solve Africa's fertilizer crisis.

The African Union Ministers of Agriculture convened in Abuja on 12 June 2006 for the Africa Fertilizer Summit:

Recognizing that Africa needs a Green Revolution which is long overdue and yet constitutes the way of getting African farmers out of the poverty trap by achieving food security and other relevant the Millennium Development Goals;

Recognizing that fertilizer is crucial for achieving an African Green Revolution in the face of rapidly rising population and declining soil fertility;

Realizing that most farmers in Africa are poor, have virtually no access to fertilizer and that the poorest of them urgently need special attention;

Recognizing the urgent need for a strategic investment program to increase the availability and use of fertilizer alongside with other inputs to usher in the Green Revolution on the African continent;

Declare fertilizer, from both inorganic and organic sources, a strategic commodity without borders; and

Resolve that the African Union Member States will accelerate the timely access of farmers to fertilizers:

1. Given the strategic importance of fertilizer in achieving the African Green Revolution to end hunger, the African Union Member States resolve to increase the level of use of fertilizer from the current average of 8 kilograms per hectare to an average of at least 50 kilograms per hectare by 2015.
2. By mid-2007, the African Union Member States and the Regional Economic Communities should take appropriate measures to reduce the cost of fertilizer procurement at national and regional levels especially through the harmonization of policies and regulations to ensure duty- and tax-free movement across regions, and the development of capacity for quality control. As an immediate measure, we recommend the elimination of taxes and tariffs on fertilizer and on fertilizer raw materials.
3. By mid-2007, the African Governments must take concrete measures to improve farmers' access to fertilizers, by developing and scaling up input dealers' and community-based networks across rural areas. The Private Sector and Development Partners are hereby requested to support such actions.
4. By 2007, the African Union Member States must take concrete measures to specially address the fertilizer needs of farmers, especially women, and to develop and strengthen the capacity of youth, farmers' associations, civil society organizations, and the private sector.
5. With immediate effect, the African Union Member States must improve farmers' access to fertilizer, by granting, with the support of Africa's Development Partners, targeted subsidies in favor of the fertilizer sector, with special attention to poor farmers.
6. The African Union Member States should take immediate steps to accelerate investment in infrastructure, particularly transport, fiscal incentives, strengthening farmers' organizations, and other measures to improve output market incentives.
7. The African Union Member States should establish national financing facilities for input suppliers to accelerate access to credit at the local and national level, with specific attention to women.
8. The African Union Member States, hereby request the establishment of Regional Fertilizer Procurement and Distribution Facilities with the support of the African Development Bank, the Economic Commission for Africa, the Regional Economic Communities and the Regional Development Banks, through strategic public-private partnerships by the end of 2007.

9. Given the extensive fertilizer raw material resources in Africa and the fact that they are underutilized in many parts of the continent, the African Union Member States undertake to promote national/regional fertilizer production and intra-regional fertilizer trade to capture a bigger market and take advantage of economies of scale through appropriate measures such as tax incentives and infrastructure development. This should be supported by the African Development Bank, the Economic Commission for Africa, the Regional Development Banks, the Regional Economic Communities, other Development Partners, and the Private Sector.

10. The African Union Member States should take specific action to improve farmer access to quality seeds, irrigation facilities, extension services, market information, and soil nutrient testing and mapping to facilitate effective and efficient use of inorganic and organic fertilizers, while paying attention to the environment.

11. The African Development Bank, with the support of the Economic Commission for Africa and the African Union Commission, is called to establish, by 2007, an **Africa Fertilizer Development Financing Mechanism** that will meet the financing requirements of the various actions agreed upon by the Summit. We, the African Union Member States, undertake to support the establishment of this facility and will pledge resources for its immediate operation.

12. The African Union Member States request the African Union Commission and the New Partnership for Africa's Development to set up a mechanism to monitor and evaluate the implementation of this resolution. This should be done in collaboration with the Economic Commission for Africa and the African Development Bank. The African Union Commission should give progress report to the African Heads of State at every sixth-monthly African Union Summit, starting in January 2007.