

An Action Plan for Developing Agricultural Input Markets in Burundi

Prepared by



*An International Center for Soil Fertility
and Agricultural Development*

**P.O. Box 2040
Muscle Shoals, Alabama 35662, U.S.A.**

www.ifdc.org

Funded by

Directorate-General for Development Cooperation (DGIS)

April 2007

Preface

The road to economic and social recovery in Burundi in the aftermath of ethnic-based conflicts is a difficult one. The country is among the poorest countries of the world, because more than half of the population lives on less than US \$1 a day. Extremely high population pressure (206 persons per km²), a tight resource base, declining soil fertility, and an extremely low use of modern inputs (improved seeds and inorganic fertilizers) are the key causes of social instability, environmental degradation, and food insecurity.

To speed up broad-scale agricultural intensification in Central Africa's Great Lakes Region, the Dutch Embassy in Rwanda has awarded IFDC a 5-year project called CATALIST—Catalyze Accelerated Agricultural Intensification for Social and Environmental Stability—in Central Africa's Great Lakes Region (Rwanda, Burundi, Eastern Democratic Republic of Congo (DRC), Tanzania, and Uganda). CATALIST proposes a radical regional approach to agricultural development in the region. The project seeks to change the existing unsustainable self-sufficiency-oriented smallholder farming systems into sustainable market-oriented production systems through adoption of external inputs and their efficient use, intermediate forms of mechanization, and product chain development.

At the onset of the CATALIST project, a team was sent to Burundi to provide the project staff with in-depth insight in agricultural intensification and market development opportunities and to draft a need-based and practical action plan for the development of fertilizer and seed markets and improvements in access to credit. The assessment was conducted during November-December 2006. The assessment team included the following members:

- H. B. Singh, Senior Marketing Specialist and Team Leader, IFDC
- O. Camara, Agricultural Economist, IFDC
- F. Muhhuku, Seed Specialist, IFDC Consultant
- C. Nzajibwami, Coordinator, HelpAge Burundi

The assessment team traveled to Gitega and Bujumbura and interviewed several stakeholders ranging from agri-input traders; farmers' cooperatives; and financial, government, and development institutions. This report is the result of a synthesis and examination of the information gathered during the assessment.

Contents

Executive Summary	vi
I. Introduction	1
A. Socioeconomic Context	1
B. Agricultural Policy—Recent Development and New Initiatives	5
C. Nature, Scope and Objectives of the Action Plan	8
II. An Assessment of the Agricultural Input Markets in Burundi	10
A. An Assessment of the Fertilizer Market	10
B. An Assessment of the Seed Market	17
C. Access to Finance	23
D. Constraints Affecting the Functioning and Performance of AIMS	31
III. Proposed Measures to Improve the Performance and Functioning of AIMS	38
A. Creation of an Enabling Policy Environment	39
B. Improving Access to Finance	39
C. Development of Input Markets and Local Capacity in Agribusiness	43
D. Establishment of a Market Information System	44
E. Strengthening the Regulatory Capacity	44
F. Improving Access to Fertilizer	45
G. Increasing Seed Supply	49
IV. Specific Recommendations for the CATALIST Project	50
V. Implementation Arrangements	54
References	66

Acronyms and Abbreviations

ACMV	African Cassava Mosaic Virus
ADB	African Development Bank
AGF	Agricultural Guarantee Fund
AIMs	Agricultural Inputs Markets
ASARECA	Association for Strengthening Agricultural Research in East and Central Africa
BANCOBU	Commercial Bank of Burundi
BBCI	Burundi Bank for Trade and Investments
BC	Belgian Cooperation
BF	Burundi Franc (1 dollar US = 1,000 BF)
BGF	Management and Financing Bank
BIT	Bureau Internationale du Travail
BNDE	Burundi National Development Bank
BrS	Breeder Seed
BS	Basic Seed
BTC	Burundi Tobacco Company
CAADP	Comprehensive Africa Agricultural Development Program
CAPRI	Network of Rice Producers Associations of Imbo
CASE	Competitive Agricultural Systems and Enterprises
CATALIST	Catalyze Social and Environmental Stability through Agricultural Intensification in Central Africa's Great Lakes Region
CCEM	Mutual Credit and Savings Fund
CDF	Community Development Fund
CECM	Savings and Loan Cooperative
CGF	Credit Guarantee Funds
CGIAR	Consultative Group on International Agricultural Research
CIAT	International Center for Tropical Agriculture
c.i.f.	Cost, Insurance, and Freight
CIMMYT	International Maize and Wheat Improvement Center
CIP	Centro Internacional de la Papa
CIS	Credit Information System
CNTA	National Center for Food Technology
COFIDE	Company of Financing and Development
COGERCO	Cotton Management Company
COMESA	Common Market for Eastern and Southern Africa
COOPEC	National Federation of Savings and Loan Cooperatives
COPEd	Education and Development Advisory
COSPEC	Farmers' Savings and Loans Solidarity Cooperative
CPPs	Crop Protection Products
CS	Certified Seed
CTB	Belgian Technical Cooperation
DFID	Department for International Development
DGA	General Department of Agricultural
DGIS	Directoraat Generaal voor Internationale Samenwerking
DPAE	Provincial Department of Agriculture and Livestock
DRC	Democratic Republic of Congo
EA	East Africa
EAC	East African Community
EU	European Union
FACAGRO	Faculty of Agronomic Sciences
FAO	Food and Agriculture Organization of the United Nations
FCPSP	Food Crops Production Support Project
FFS	Farmers' Field Schools
f.o.b.	Free on Board

GDP	Gross Domestic Product
GEF	Global Environment Fund
GDP	Gross Domestic Product
GOB	The Government of the Republic of Burundi
IARCs	International Agricultural Research Centers
IDA	International Development Agency
IFA	International Fertilizer Industry Association
IFAD	International Fund for Agricultural Development
IFDC	An International Center for Soil Fertility and Agricultural Development
IFPRI	International Food Policy Research Institute
IITA	International Institute for Tropical Agriculture
IMF	International Monetary Fund
INIBAP	International Network for Improvement of Banana and Plantain
IMP	Integrated Pest Management
I-PRSP	Interim Poverty Reduction Strategy Paper
IRAZ	Institute of Agronomic Research and Zootechnology
ISABU	Burundi Institute of Agronomic Sciences
ISFM	Integrated Soil Fertility Management
LOC	Letters of Credit
LOC	Line of Credit
MDG	Millennium Development Goals
MFI	Microfinance Institutions
MINAGRI	Ministry of Agriculture
MIR	Promoting Agricultural Development Through the Creation of a Regional Inputs Market in West Africa (Project)
MIS	Market Information System
MISTOWA	Market Information Systems and Traders' Organizations in West Africa
MSV	Maize Streak Virus
MUTEK	Saving and Loans Mutual
NAP	National Agricultural Policy
NEPAD	New Partnership for African Development
NGO	Non-Governmental Organization
NVPT	National Variety Performance Trial
OCIBU	Coffee Board of Burundi
OPEC	Organization of Petroleum Exporting Countries
OPV	Open Pollinated Varieties
OTB	Tea Board of Burundi
PACE	Pan-African Program for Epizooties Control
PBS	Pre-Basic Seed
PGRRR	Ruyigi Rural Development Project
PRASAB	Agricultural Program of Rehabilitation and Sustainable Land Management
PRDMR	Program for Revival and Development of Rural Areas
PRSP	Poverty Reduction Strategy Papers
PVP	Plant Variety Protection
QC	Quality Control
QDS	Quality Declared Seed
RIM	Network of Microfinance Institutions
RRDP	Rural Recovery and Development Program
SAADA	Strategic Alliance for Agricultural Development in Africa
SABU	Burundi Institute of Agronomic Sciences
SADC	Southern African Development Community
SCFF	Structured Commodity Finance Facility
SESAI	Social and Environmental Stability through Agricultural Intensification in Central Africa's Great Lakes Region
SME	Small and Medium Enterprises
SMS	Short Message Service

SRDI	Regional Society for the Development of Imbo
SSA	Sub-Saharan Africa
STABEX	Exports Stabilization
TA	Technical Assistance
TC	Tissue Culture
TSBF	Tropical Soil Biology and Fertility Institute of CIAT
UCODE	Union of Development Cooperatives
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WFP	World Food Program

Executive Summary

I. Introduction

Burundi is among the five poorest countries in the world, with a per capita income of about US \$110. Years of civil war have considerably worsened development results, which led the country farther away from reaching the United Nations' Millennium Development Goals (MDG). The war has resulted in increased food insecurity, substantial loss of human capital, farming and physical infrastructure, decimation of livestock, increase in unemployment, deterioration in public finances, high inflation, depreciation of the currency, increased costs and reduction in transport and distribution activities, loss of export earnings, and degradation of natural resources. Today, Burundi is still involved in a process of normalizing and democratizing its political life. The country is on the road to recovery. As peace and security are progressively restored, new institutions are established through a democratization process, and many donors are resuming activities in the country. Burundi now faces a serious challenge of reducing the immense poverty and food insecurity created by years of civil war. The state of the agricultural sector in Burundi today is one of subsistence and extremely low productivity.

II. An Assessment of the Agricultural Input Markets in Burundi

Agri-input use in Burundi is among the lowest in Africa. Less than 5% of farmers use fertilizer and less than 1% use improved seeds. Reasons for such low use rates include the following macro policy and market development issues.

Macro Policy Constraints

In spite of substantial improvements in macroeconomic performance since the end of the civil wars, Burundi's economy remains vulnerable to external shocks. The country relies heavily on foreign aid to finance the government budget. Depreciating and fluctuating exchange rates translate into risk and uncertainty for agri-input importers. High interest rates, ranging between 14% and 36%, reduce the scope of agri-input traders' initiatives. This situation is compounded

by high and unstable inflation rates, 16% in 2006, due to domestic electric shortages, rising fuel costs, and increased food prices brought about by poor weather and consequently low harvests. Finally, trade policies in Burundi remain inhibitive to agri-input trade despite the national government's initiatives to reduce trade barriers. The business climate for agri-input traders remains non-conducive to trade.

Market Development Constraints

Market development constraints include uncertain policy environments, inadequate incentives for private sector investment, inadequate emphasis on human capital/input market development, weak legal and regulatory systems, limited access to finance, and lack of market information. These six constraints refer to the six pillars of market development.

Uncertain Policy Environment—The Government of Burundi (GOB) has seemingly withdrawn from marketing functions to focus on regulating and promoting the use of agri-inputs, as specified in the 1984 Structural Adjustment Policy. However, trade liberalization was seen as half-hearted since the private sector was and remains faced with competition from the government. The government is reluctant to withdraw completely from the sector for fear of being faced with fertilizer scarcity, since it believes that the private sector had shown little interest in taking over and investing in certain areas, such as warehousing. Today, there are no clear policy guidelines on the role of the private sector, and official attitude is generally negative. It is said that whatever little private sector participation there is, it is largely as a side business without proper understanding of soil fertility, input use technologies, and crop management issues.

Lack of Access to Finance—The banking sectors in Burundi operate in an environment characterized by macroeconomic instability, weak legal systems, and dearth of credit information. The non-conducive environment within which lending institutions operate in this country translates into a small and weak banking sector, ineffective financial systems, and a small supply of agricultural credit. As a result, despite the increasing trend in investment activities, the involvement of the private sector in agricultural financing in Burundi remains marginal. Farmers and agri-input traders face enormous challenges in obtaining loans even with

microfinance institutions (MFIs) because they are excluded from financial services in four ways: (i) access exclusion: e.g. through risk screening; (ii) condition exclusion: product design inappropriate for the needs of farmers and agri-input traders; (iii) price exclusion: financial products too costly; and (iv) self-exclusion: some farmers and traders are not applying in the belief that they would be refused.

Inadequate Marketing Infrastructure—Years of civil wars have severely eroded the country’s marketing infrastructures. There is degradation of rural roads and destruction of marketing infrastructures (warehouses; input shops) throughout the country. Bad road conditions result in delays in transit and high transport costs. The truck drivers are required to make some unauthorized expenses at cross inter-country checkpoints. The security concerns were a serious issue, but the situation has improved in recent years.

Weak Agri-Input Dealer Networks—The number of importers, wholesalers, and retailers involved in the input supply chain is very small and most businesses are located in urban towns. This considerably limits the availability and accessibility of inputs in rural areas because most farmers have to travel more than 30 km to purchase inputs.

Poor Technical Knowledge of Farmers and Farmers’ Associations—Farmers are inexperienced regarding the importance of agri-inputs, their safe and proper use, application rates, and the suitability to their cropping purposes. Farmers’ associations lack technical knowledge (seed certification, growing conditions, plant diseases, buying and safely applying quality inputs), business skills (basic accounting, bookkeeping, credit sources, contract negotiation, dispute settlements, planning, and marketing) and good governance (transparent policymaking and decision-making, openness to diversity of opinions, frequent communications, solid financial controls, good accounting system, and independent audits).

Inadequate Extension Systems—The lack of trained human resources is a serious constraint in the promotion of fertilizer use. The Ministry of Agriculture (MINAGRI) is faced with financial constraints to conduct field promotional activities. The number of government officials, who provide extension, technical, and market information services, is very small and

most of them need training to improve their technical knowledge. This is another constraint that has slowed down the transformation of subsistence agriculture to a commercial one.

Inadequate Product Knowledge and Business Skills of Agri-Input Traders—Agri-input traders' capacity to conduct business is weak because they lack technical knowledge and business skills. Their knowledge of the products they market, their advisory skills, their understanding of banking procedures, salesmanship and business skills (business plans, record keeping) are grossly inadequate. The limited technical knowledge of agro dealers is another obstacle in the promotion of commercial agriculture. Similarly there are only few public and private professionals to carry out the training in input marketing, logistics planning, business management and financial discipline etc. There is therefore a serious shortage of critical human resource, in the area of agribusiness development in Burundi.

Dearth of Research Infrastructure—Burundi lacks the human and physical resources to conduct research and produce enough basic seeds. The Burundi Institute of Agronomic Sciences (ISABU) is in charge of research and technology transfer activities. However, they lack financial and human resources because most infrastructures were destroyed during the war. Today, there are only two fertilizer testing labs in the country; one at ISABU and the other one at the Ministry of Mining.

Weak Legal and Regulatory Systems—MINAGRI has drafted and passed laws on crop protection products. Laws on fertilizer and the seed sector have also been drafted and are in the process of being passed. Legal systems are weak and rigid with lengthy statute-based processes, which 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 incentives to repay loans. Lending institutions in these countries operate in mostly non-conducive environments; this translates into a small and weak banking sector, ineffective financial systems, and a small supply of agricultural credit.

Inadequate Quality Control Mechanisms—Burundi is faced with a heavy supply of substandard agri-inputs, illegal border trade, and weak quality assurance systems. These

constraints seriously hamper market development. Today, the government is faced with problems to control, enforce, and strengthen the control capacity of its inspection agencies.

Lack of Market Information Systems—Farmers, agri-input traders, and the government critically lack access to reliable information on the quantity and price of agri-inputs in the country.

Absence of Post-Harvest Processing Facilities—Over 90% of food crops produced in Burundi is consumed after traditional processing methods such as pounding for cassava and milling wheat, maize, millet, and sorghum using stones. Such methods are often unsanitary, extremely time consuming, physically demanding, and are not the best way to minimize post-harvest losses. The agro-processing sector is seriously underdeveloped and limited to export crops such as coffee, tea, oil production, and beverage factories.

III. Proposed Measures to Improve the Functioning and Performance of AIMs in Burundi

Several measures are proposed to address the inputs market development and macro policy constraints limiting the emergence of effective agri-input markets in Burundi. These measures are included in Action Plan Matrices A through E for fertilizer and seed markets and financial services. The specific actions, summarized below, are grounded in the Five Pillars of Market Development: Policy, Human Capital, Finance, MIS, and Regulatory Mechanisms. They aim to improve the availability, accessibility, and affordability of fertilizer, seed, and finance to farmers through strengthening and greater market participation of the private sector. The primary focus of these recommendations is to create an enabling environment and increase the capacity of the private sector to take over its function in the new liberalized markets. While some of the proposed measures pertaining to the policy environment are clearly roles to be assumed by the government, the CATALIST project can significantly contribute to addressing the market development constraints. Suggested areas of intervention for the CATALIST project are clearly specified in the proposed recommendations.

Creation of an Enabling Policy Environment

It is recommended that the GOB pays immediate attention to the creation of an enabling environment for increased investment by the private sector in agri-input markets. This can be done through the following:

- Creation of open and competitive markets.
- Encouragement of rural enterprises to be partners in agricultural development.
- Enforcement of quality assurance mechanisms.
- Appropriate and stable fiscal, monetary, and exchange rate policies.
- Well-established property rights.
- Skillful management of foreign aid.
- Control of inflation and money supply.
- Reduction in government's borrowings from private banks.
- Strengthen the capacity of customs to reduce import procedures and improve processing of import requests.
- Engage in dialogues with the private sector about the government's policies and involvement in agri-input markets.

In addition to these recommendations, access to fertilizer and seed can be improved through the integration of multi-country markets to reduce procurement, transportation, and warehousing costs. Reductions in tariff and non-tariff trade barriers and simplification of administrative procedures would certainly improve the trade environment in Burundi.

Human Capital and Market Development

The development of human capacity in Burundi will result in not only increased availability of agri-inputs in rural areas but also improved knowledge of farmers on the proper use of agri-inputs, which is crucial for agricultural intensification to occur. To that end, the following measures are recommended: creation of trade associations; registration of operators of input supply chain; training of agro-dealers and extension workers; and revival and upgrading of extension services. Training and human capacity development will also be vital in the entire seed chain. This could include visits to seed industries in the region where considerable experience in the development of private sector seed business exists.

Improving Access to Finance

First, bank staff must undergo intensive training activities to induce a positive change in the attitudes of the banking system and MFIs toward lending to agricultural entities. Second, the CATALIST project should work closely with CAPAD to strengthen the capacity of existing producer organizations to access credit through targeted training programs in loan application procedures and credit management. The same strategy is recommended to improve traders' technical and business skills. This would start with the establishment of traders associations in Burundi. Third, the establishment of Structured Commodity Finance Facilities (SCFF) in each province of Burundi is encouraged to improve subsistence farmers' access to credit for the acquisition of inputs. Finally, it is crucial that a Credit Information System (CIS) be established to improve transparency, information-sharing and help traders and farmers establish credit history. In addition to these activities, the CATALIST project should focus on stimulating donor and government funding for the establishment of several Lines of Credit (LOC) and Credit Guarantee Funds (CGF) for farmers and agri-input traders in Burundi. The dearth of such initiatives is a serious limitation on the availability of financing for the agricultural sector.

Establishment of a Market Information System

There is an urgent need to provide transparency in Burundi national markets. Farmers, traders, and the government should have constant access to reliable information on products, prices, stocks, and quantities in different locations. Additional resources should be allocated to collecting and disseminating—through radio, weekly bulletins, short message service (SMS), and the Internet—to all segments of the market. This data should also include information from neighboring countries. This could be done within an industry association so that as the private sector takes root they can own the service as a means to promote their business.

Strengthening the Regulatory Capacity

It is important for an adequate regulatory mechanism to be in place and to be properly enforced to deter the sale of sub-standard products in the markets and to provide confidence to farmers that the cost they incur will generate the expected benefits. It is recommended that MINAGRI, with the help of the CATALIST project and other donors, finalize as soon as

possible seed and fertilizer policies, enact appropriate laws and regulations, and put in place mechanisms to enforce quality control measures. Other important aspects relate to the harmonization of seed laws and regulations with the East Africa (EA) harmonized guidelines; the rehabilitation of the seed certification and quality control infrastructure; strengthening of ISABU's capacity in variety development and the production of Breeder Seed (BrS) and Pre-Basic Seed (PBS); and promotion of hybrid seeds.

IV. Implementation Arrangements

To implement the measures proposed in Action Plan Matrices, it is recommended that a Task Force, consisting of representatives from MINAGRI, the CATALIST project, donors, private importers, and dealers, and farmers' associations, be created in the country. This task force will be responsible for aligning donor funding behind the proposed measures. This would ensure that all resources are channeled in the same direction, create accountability and guarantee that the implemented activities have measurable impacts on the livelihoods of the rural populations.

Issues/Constraints	Actions Recommended	Responsibility
	<ol style="list-style-type: none"> 3. Rehabilitation of seed control and certification infrastructure. 4. Variety development and early generation seed production. 5. Registration of inputs imported, manufactured, and sold. <ul style="list-style-type: none"> • Establishment of a market information system. 	

Action Plan Matrix B. Fertilizer Market Development

Issues/Constraints	Actions Recommended
<p>1. Policy Issues</p> <ul style="list-style-type: none"> • The Structural Adjustment policy adopted by GOB in 1986, entrusting the private sector with the responsibility of fertilizer importation and supply to commodity companies, cooperatives, and producer associations, through tenders at a fixed price, allowing 15% profit margin after meeting the costs of importation and inland transportation. There is no tax on fertilizers and responsibility of extension services is with the government and the commodity companies. There is a fertilizer revolving fund managed by BNDE, through which cost of importation is funded by the government. • Although the above policy has worked satisfactorily, the performance of the private sector is below the expectations of the GOB and the farmers. The following constraints hamper the growth of private sector investment in the fertilizer business. <ul style="list-style-type: none"> a. The availability of funds is limited and the private sector does not feel secure to invest, keeping the importation restricted to 12-14,000 tons per year. b. The government funding is linked to foreign aid, creating doubts about the continuation and expansion of the revolving fund creating uncertainty for long-term business planning by the private sector. c. The taxes on fertilizer are exonerated (which are otherwise quite high) in the form of subsidy by MINAGRI. The low/less than 1% budgetary allocation to agriculture creates doubt about the continuation of the subsidy and thereby restricts the business expansion by private sector. d. The GOB is considering amending the fertilizer policy; introducing some controls and closer monitoring of fertilizer importation, and reversing some of the provisions of the policy. 	<ul style="list-style-type: none"> • Policy inconsistency, weak economic environment, and inadequate financial support by the public and commercial banking sector are the major bottlenecks in investment by the private sector. • Taking into consideration the importance of enhanced productivity in food security and social stability, the GOB must do its best to win the confidence and offer incentives for investment in agri-input markets. • The proposed policy changes should be discussed with private sector to remove the bottlenecks rather than changing the roles. Increased funding for fertilizer procurement, assurance on tax relief for a fixed period, and additional efforts to promote the use of fertilizer and other inputs may encourage private sector investment.
<p>2. Logistics, Planning, and Infrastructure</p> <ul style="list-style-type: none"> • Presently, fertilizer transported by road from ports located in foreign countries is cleared by customs at only one location in Bujumbura. The warehousing facility in rural markets is not used for advance stocking. The agro-retailers and farmers are required to travel long distances and re-transport fertilizers, incurring additional costs. The system of transportation and delivery is cumbersome, expensive, and makes the business less attractive to medium and small business enterprises. 	<ul style="list-style-type: none"> • The GOB should liaise with COMESA/SADC to facilitate collective/regional procurement, transportation, and delivery of fertilizer by Rwanda, Burundi, and DRC. • A feasibility study for collective procurement, transportation, storage, and delivery by Rwanda, Burundi, and Congo may be conducted to determine economic savings and actions involved in the implementation of the proposed system. CATALIST should consider funding the feasibility study and networking with COMESA. • The GOB should make direct delivery more practical and attractive in

Issues/Constraints	Actions Recommended
	<p>consultation with related stakeholders. There should be at least one delivery point in each potential prefecture.</p> <ul style="list-style-type: none"> • The inventory of existing storage facilities may be conducted to develop a long-term strategy for utilization of available field storage space and the need for an additional storage facility in future years. • The staff of importers, and agro-dealers involved in handling and storage of fertilizer, seeds, and CPPs should be trained to affect economy and safety in these operations.
<p>3. Agro-Dealers Network (Human Capital)</p> <ul style="list-style-type: none"> • Few agro-retailers in rural areas, due to lack of credit and other business facilities. • The business skills and knowledge of input use technologies of dealers is limited. • Fertilizer importers have limited knowledge of logistics, management, and product specifications. • Agro-dealers work as individual business enterprises and have no trade association. • Agro-dealers, due to limited knowledge in agri-technologies, are unable to offer fertilizer advisory services to customer farmers. 	<ul style="list-style-type: none"> • Agro-dealers, both from cooperatives and the private sector, should be trained and facilitated to conduct input business as small and medium enterprises (SMEs). • Retail dealers should be linked with suppliers through business networking and with extension staff for farm technologies. • Agro-dealers should be encouraged to form trade associations. • Agro-dealers should be provided the skills of business planning and credit management/payment.
<p>4. Financial Constraints/High Rate of Interest</p> <ul style="list-style-type: none"> • Agro-dealers have a limited access to credit and are required to pay higher rates of interest as compared to cooperatives. Commercial banks ask for collateral and have stringent terms and conditions for loans on agribusiness. • Inter-business private credit among different links of input supply chain is limited. 	<ul style="list-style-type: none"> • The government, the National Central Bank, and commercial banks should review the availability and rate of interest and loan terms to agro-dealers, treating them as small and medium agribusiness enterprises and support agricultural productivity and rural economy. • The private business credit by wholesalers and retailers should be encouraged through training in credit management and development of business linkages by CATALIST in collaboration with BNDE and commercial banks.
<p>5. Inadequate Access to Market Information</p> <ul style="list-style-type: none"> • The access to reliable and up-to-date market information is grossly inadequate and is a major obstacle in the development of confidence in agribusiness and government policies of agricultural development. 	<ul style="list-style-type: none"> • The existing system of market information is inadequate. There is a need to develop an efficient and reliable system for the collection and dissemination of information prices and availability of inputs in the national, regional, and international markets. CATALIST should facilitate MIS at regional basis.

Issues/Constraints	Actions Recommended
<p>6. Strengthening of Quality Assurance by ISABU</p> <ul style="list-style-type: none"> The existing system of quality inspection is inadequate, is not supported by legal provisions for punishment of offenders, does not cover inspections at retail and wholesale points, and the fee charged by ISABU for fertilizer testing is high. 	<ul style="list-style-type: none"> Fertilizer regulatory mechanism, including the legislation and methods of fertilizer sampling and analysis should be upgraded. ISABU should be strengthened to draw samples at all borders and urban/rural markets, staff involved in fertilizer sampling should be trained, and capacity of fertilizer testing laboratories should be upgraded. The punishment for supply of sub-standard fertilizers should be severe with high fines and cancellation of licenses to deter the unscrupulous traders.
<p>7. Small Packs of Fertilizer, Seeds, and CPPs</p> <ul style="list-style-type: none"> A majority of farmers are unable to buy 50-kg bags of fertilizer and big size packs of seeds and CPPs. The current method of breaking 50-kg bags to repack in small packets by untrained manual labor is subject to quality deterioration and short weight, etc. 	<ul style="list-style-type: none"> MINAGRI, CATALIST, and fertilizer trade associations (when formed) should work together to develop a strategy for small packs. The agro-dealers should be facilitated to pack in small packets and allowed to charge additional cost of packaging.
<p>8. Extension Services</p> <ul style="list-style-type: none"> The government extension services are currently the only source of technology transfer to farmers. The number of extension workers is inadequate and they need to update their technical messages. This has slowed down the process of commercialization of subsistence farming. 	<ul style="list-style-type: none"> MINAGRI should consider expansion and update of commercialized extension services. In addition to well-trained extension workers, promotion of commercial farming through the use of mass media, particularly radio, may be given priority. The agro-dealers should be trained to provide farm advisory services to farmers.

Action Plan Matrix C: Seed Market Development

Issues/Constraints	Actions Recommended	Responsibility	Remarks
<p>Policy, laws, and regulations: Many gaps.</p>	<ul style="list-style-type: none"> Finalize policy and updating of seed laws in line with EA harmonization. Clarify policy toward privatization. 	<ul style="list-style-type: none"> CATALIST and MINAGRI to coordinate and expedite process. 	<ul style="list-style-type: none"> Immediate.
<p>Quality control and certification: System almost non-existent.</p>	<ul style="list-style-type: none"> Rehabilitate seed QC infrastructure in terms of equipment and personnel. The same applies to phytosanitary services. 	<ul style="list-style-type: none"> CATALIST and MINAGRI. 	<ul style="list-style-type: none"> Immediate.
<p>Variety development and early generation seed production: Variety development and production of BrS and PBS is weak.</p>	<ul style="list-style-type: none"> Strengthen ISABU capacity for variety development and seed production. Attract and support variety introductions from regional seed companies. 	<ul style="list-style-type: none"> CATALIST to fund identified ISABU activities; work with ISABU to introduce, conduct trials, and release companies' varieties. ISABU to conduct NVPTs. 	<ul style="list-style-type: none"> Could be done concurrently with Rwanda.
<p>Commercial seed production and marketing: Virtually no formal seed production and no distribution system.</p>	<ul style="list-style-type: none"> Support marketing of CS from private seed companies—market development, demonstrations, and linkages with cooperatives and NGOs. Make an assessment of seed demand and supply. Train selected co-ops in formal seed production. Support development of private seed companies. Develop the input distribution network. Encourage NGOs and relief agencies to distribute certified seed. 	<ul style="list-style-type: none"> CATALIST to fund and give TA for these activities. Enlist support of some donor agencies and NGOS, e.g. CTB, FAO, etc. MINAGRI, CATALIST development Partners actively encourage growth of local seed companies and entry of regional companies. 	<ul style="list-style-type: none"> Harmonize with Rwanda.
<p>Coordination of NGOs: Great work done by NGOs and relief agencies but no coordination or monitoring.</p>	<ul style="list-style-type: none"> Bring agencies together and promote coordination. Put resources into rehabilitating systems. Build sustainability by involving private sector in ongoing relief and rehabilitation work. 	<ul style="list-style-type: none"> CATALIST and MINAGRI to coordinate these activities. MINAGRI set rules for NGO monitoring. 	<ul style="list-style-type: none"> Immediate start.

Action Plan Matrix D: Increasing Access to Finance

Issues/Constraints	Actions Recommended	Responsibility
<p>1. Non-Conducive Environment for Lending Institutions: macroeconomic instability, weak legal systems and dearth of credit information</p> <ul style="list-style-type: none"> • Inflation rates are high and unstable. • Legal systems are rigid with lengthy statute-based processes. • Heavy institutional constraints such as administrative procedures. • Uncertainty with respect to the predictability, speed, and fair enforcement of contracts. • High costs of contract enforcement. • High costs to acquire and process information about the credit worthiness of agricultural enterprises and the probability of their investments being successful. 	<ul style="list-style-type: none"> • Establish a credit information system (CIS) within the Central Banks to provide adequate and timely information on borrowers at reasonable prices. • Ensure macroeconomic stability through appropriate monetary, fiscal, and exchange rate policies. • Strengthen the physical (train lawyers in settlement of financial disputes) and financial resources of the judiciary system. • Institute an effective enforcement procedure and specify scope for corrective measures. • Protect creditors' rights and improve loan recovery through an effective legal system. 	<p>CATALIST project, Ministry of Finance, Ministry of Justice, and Central Banks</p>
<p>2. Small Stock of Bank Credit to the Agricultural Sector</p> <ul style="list-style-type: none"> • Banks do not understand the business of agriculture. • Limited knowledge and training of bank staff on the agricultural sector. • Lack of trustworthy information system on farmers and agri-input traders. • Uncertainty from both lenders and borrowers' sides about expected loan repayment because agricultural output is subject to the vagaries of the weather and most farmers are subsistence farmers. • Information asymmetries make the 	<ul style="list-style-type: none"> • Help banks develop new products well adapted to meet the financial needs of farmers and agri-input traders. • Induce a positive change in the attitudes of the banking system and MFIs toward lending to agricultural entities by organizing meetings and interactions between farmers and bank staff to remove the misunderstanding and mistrust between the two and training bank staff on the following points: <ul style="list-style-type: none"> - The basics and nature of agricultural production. - The characteristics of agri-input businesses and farmers' associations. - The nature of the demand for agricultural credit. - The types of collateral available to agricultural entities and best practices to assess their credit worthiness. - Timely evaluation of the project submitted by farmers' associations and agri-input dealers and importers. 	<p>CATALIST project, BNDE, MFIs, Commercial Banks, Farmers' Organizations, Private sector</p>

Issues/Constraints	Actions Recommended	Responsibility
<p>assessment of viable agricultural projects difficult.</p> <ul style="list-style-type: none"> • Farmers request small loans that are not profitable for Banks given the high administrative costs they incur. 	<ul style="list-style-type: none"> - Timely evaluation of the collaterals requirements. - Providing constructive feedback to agricultural entities so that they learn from the process. - Timely approval or rejection of loan application. • Establish structured commodity finance facilities in each province in partnership with existing MFIs to solve farmers' liquidity constraints and allow them to raise cash to buy farm inputs and have greater control over their marketing decisions. 	
<p>3. Unfavorable Lending Terms and Conditions</p> <p>Farmers and agri-input traders are excluded from financial services in four ways: (i) access exclusion: e.g., through risk screening; (ii) condition exclusion: product design inappropriate for the needs of farmers and agri-input traders; (iii) price exclusion: financial products too costly; and (iv) self-exclusion: some farmers and traders are not applying in the belief that they would be refused.</p> <ul style="list-style-type: none"> • Strict collateral requirements. • High processing fees and charges. • Short length of loans. • Unfavorable loan repayment period, which begins from the time the loan is issued. • Illiteracy and the lack of management knowledge prevents the majority of farmers and agri-input traders from being able to adequately complete the technical and financial feasibility study documents required by banks. 	<ul style="list-style-type: none"> • Promote competition among banks by encouraging market access and ensuring market transparency through dissemination of information on lending terms and conditions. • Strengthen the capacity of existing producers' organizations to access credit. This should include training and guidance in the following areas: <ul style="list-style-type: none"> - Explanation of the work of banks, loan application procedures, and reasons for acceptance or denial of loans. - Preparation of profitable projects that are to be submitted to banks and MFIs (writing, editing). - Development of business plans. - Liaison between organizations and banks (assistance with contacts and meetings with bank staff) before and after credit requests are submitted to the bank. - Management of credit and repayment to reduce repayment risks and sustain access to credit. • Improve Access to Business Finance <p>The CATALIST project can facilitate access to credit, through the Agricultural Guarantee Fund (AGFs), by training:</p> <ul style="list-style-type: none"> - Staff of commercial banks and Peoples Bank on the technical aspects of agri-input business and lending mechanisms that are available in other countries for agri-input traders. - Private traders in business organization and management; investment analysis and feasibility studies; writing project proposals; loan applications; lending mechanisms to farmers' associations and farmers. 	<p>CATALIST project, BNDE, MFI, Commercial Banks, Farmers' Organizations, Private sector</p>

Issues/Constraints	Actions Recommended	Responsibility
<p>4. Weak Impact of Donors/Government Initiatives on Availability and Access to Credit</p> <ul style="list-style-type: none"> • The existing donors and government initiatives and projects are hampered by bureaucratic bottlenecks and a rigid loan review system that make them inaccessible to many agri-input traders and farmers. • Farmers' associations and agri-input traders are seldom able to prepare loan application documents that meet the quality required by the Central banks. 	<ul style="list-style-type: none"> • Simplify loan review system. • Train farmers' organizations and agri-input traders in drafting projects for loan application. 	<p>CATALIST project, Central banks, BNDE, Farmers' organizations.</p>
<p>5. Long Distances and High Transportation Costs to Reach Lending Institutions</p> <ul style="list-style-type: none"> • Financial institutions remain largely concentrated in Bujumbura with no branches in rural areas. • Farmers and traders from remote areas have to walk or drive for many hours not only to open an account or ask for a loan, but also to make a deposit or request information. • To add to the cost of time and transport, one must also add the opportunity cost of their absence with respect to daily tasks. • Long distances and transportation costs are a major obstacle to access funds from the national development banks and commercial banks. 	<ul style="list-style-type: none"> • Develop rural infrastructures. • Establish bank branches in rural areas. 	<p>BNDE, GOB, CATALIST project</p>

An Action Plan for Developing Agricultural Input Markets in Burundi

I. Introduction

A. Socioeconomic Context

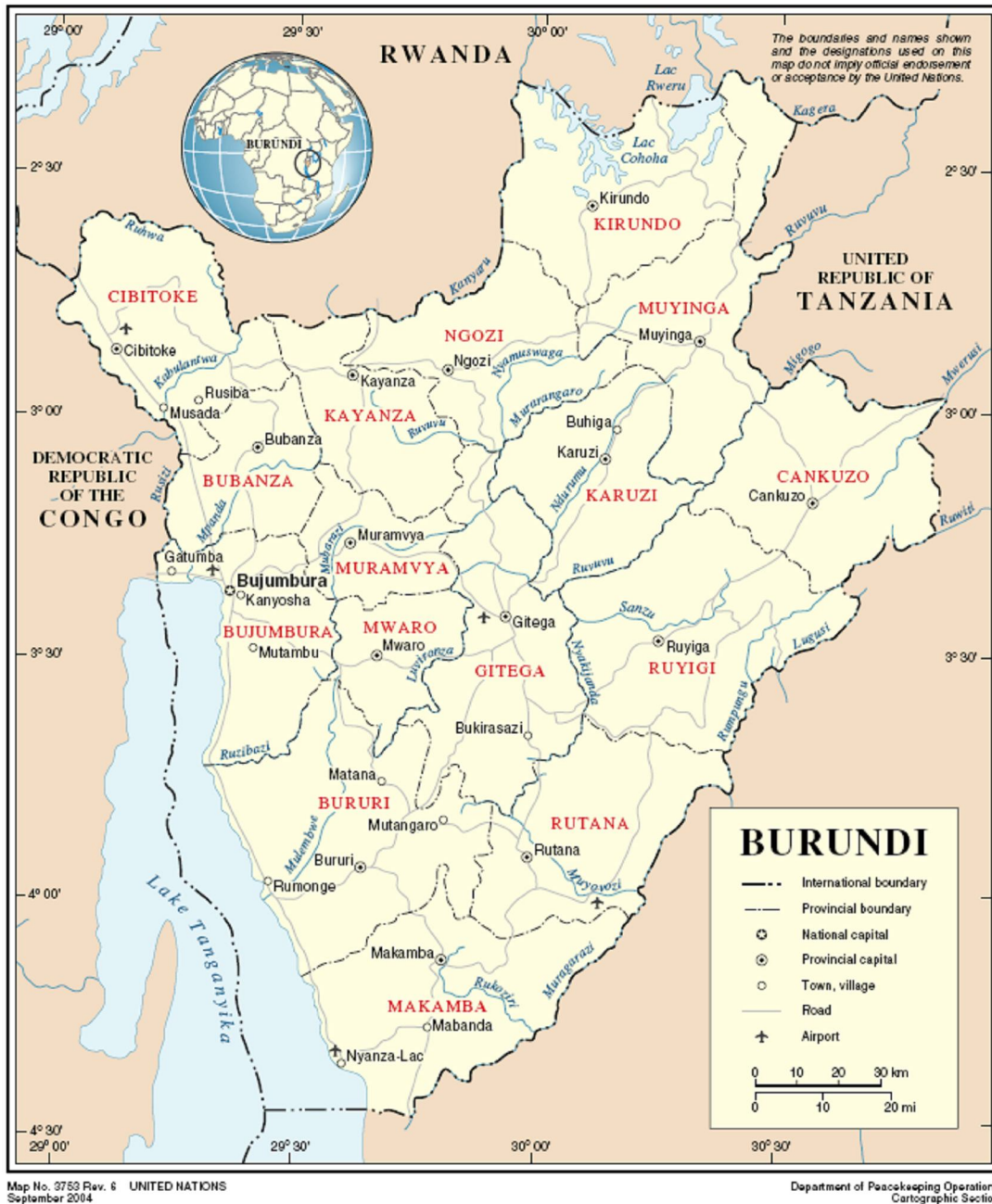
Burundi is among the five poorest countries in the world, with a per capita income of about US \$110.¹ Years of civil war have considerably worsened development results, which led the country further away from reaching the UN Millennium Development Goals (MDG). For example, the proportion of people living on less than a \$1 per day increased from 35% in 1992 to more than 67% in 2005. The war has resulted in increased food insecurity, substantial loss of human capital and physical infrastructure, decimation of livestock, increase in unemployment, deterioration in public finances, high inflation, depreciation of the currency, increased costs and reduction in transport and distribution activities, loss of export earnings, and degradation of natural resources. Many farming households have abandoned their fields due to insecurity, characterizing rural areas with massive population displacement, extensive land degradation, and increased vulnerability to food insecurity. According to a 2003 World Food Program report 68% of households were at high risk of food insecurity while 26% were chronically food insecure and only 5% of households were food secure. The area planted and food production have decreased as a result of shortages of seed, fertilizer, and other inputs. The country has also witnessed a significant reduction in local food trade and price distortions.

Today, Burundi is still involved in a process of normalizing and democratizing its political life. The country is on the road to recovery, as peace and security are progressively restored, new institutions are established through a democratization process, and many donors are resuming activities in the country. Burundi now faces the serious challenge of reducing the immense poverty and food insecurity created by years of civil war. However, given the distinctive role that agriculture plays in Burundi's economy and the livelihoods of the rural population, the country cannot reduce poverty and hunger without stepping up agricultural activities by intensifying the use of productivity-enhancing inputs.

¹ World Bank Country Brief, 2004.

Agriculture is the predominant sector of Burundi's economy—over 90% of households, of which 51% are women—live in rural areas and make their living from agriculture. In 2003, it contributed 50% of the gross domestic product (GDP), employed as much as 90% of the labor force, and provided 80% of export earnings. Over 1.2 million households are engaged in subsistence farming on average land sizes of 0.5 hectares, which continue to decline as a result of population pressure and intensive erosion.

Food crop production, covering 90% of cultivated areas and contributing 46% of the GDP, are primarily destined for home consumption. The major food crops produced by subsistence farmers are in order of importance: banana, roots and tubers (sweet potato, cassava, and potato), legumes and vegetables (beans, peas), and cereals (maize, rice, wheat, sorghum). Cash crops (coffee, tea, cotton, sugar, palm oil, and tobacco) occupy 10% of cultivated areas, contribute 4% of the GDP, and 90% of export earnings. Coffee alone provides up to 80% of export earnings. Livestock farming, which is mainly based on extensification, is not well developed and contributes a mere 5% of the GDP. Fish production, of which 95% takes place on the Tanganyika lake, amounts to between 16,000 and 24,000 tons per year.



Map 1. Burundi

The state of the agricultural sector in Burundi is today one of subsistence and extremely low productivity as a result of the following factors:

1. **Effects of civil wars:** Before the beginning of the crisis in 1993, despite important investments in the agricultural sector, the country failed to achieve most targets, especially that of food self-sufficiency. The war, however, has exacerbated these problems. It has

resulted in a decrease of food supply, yields, quality of export crops, livestock, and a degradation of natural resources. The loss of the social capital and community solidarity that helps to cope with poverty has increased social and economic vulnerability. Massive displacement and resettlement of the population during the civil war accelerated deforestation and environmental degradation. The war also resulted in substantial loss of human capital (farmers and agribusinesses), decimation of livestock, and destruction of agricultural research infrastructures.

2. **Population pressure:** Burundi is the second most densely populated country in Africa. The country has 7.6 million people living on a land area of 27,834 km², or a population density of 297 persons per km². Population pressure has pushed farmers onto marginal fragile lands. At the current annual population growth rate of 3%, the country faces extreme challenges to achieve food security and reduce poverty.
3. **Soil erosion:** The size of arable land is gradually declining due to intensive wind and water erosion because farming often takes place on steep slopes. Steep slopes are common throughout the country and farming often takes place on slopes. The use of fragile lands on steep slopes is expanding and fallow periods are growing shorter. Heavy seasonal rains, the removal of vegetation, and neglect of the infrastructure for physical and biological soil conservation accelerate soil erosion.
4. **Low levels of investment in the agricultural sector:** Investments in the agricultural sector are extremely small. In the national budget, funds allocated to the sector are less than 3% each year. The agricultural sector attracts only 2%-4% of bank loans.
5. **Subsistence farming:** 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 Burundi have limited participation in the market economy; 30% to 50% of the rural population in 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.
6. **Declining soil fertility and low use of modern inputs:** Soil nutrient depletion is among the highest in SSA. The problem is compounded by the rapid decline in fallow fields, the loss of manure due to reduced livestock inventories, and population growth. It is estimated that only 2% of households use improved seeds. The use of inorganic fertilizers, 4 kg/ha, is well below the continent's average of 8 kg/ha. This can be explained because farmers lack access to

modern inputs; their purchasing power is weak; they lack technical knowledge and business skills; and research and extension systems are not adapted to local constraints.

7. **Lack of technical knowledge at all levels:** Farmers, scientists, and extension agents.
8. **Weak coordination mechanisms of actors in the agricultural sector:** This leads to duplication of efforts and waste of scarce resources.
9. **Predominance of the state in the support structures for:** Food production, the centralization of development, and administrative bottlenecks do not facilitate the emergence of the private sector.
10. **Heavy external financing and aid:** Prevent the ownership of project components and process by beneficiaries.
11. **Weak capacity in management of water and soil fertility.**
12. **Dearth of processing and conservation infrastructures:** The existing structures are reserved to cash crops.

B. Agricultural Policy—Recent Development and New Initiatives

It is within this context that the GOB has been formulating national policies. In its recently drafted Interim Poverty Reduction Strategy Paper (I-PRSP), the GOB identifies six strategic lines of action:

1. Promotion of peace and good governance.
2. Revival of a strong economy in order to reduce poverty.
3. Access to basic social services.
4. Reinsertion and reintegration of ex-combatants and vulnerable groups into the economy.
5. Fight HIV/AIDS.
6. Participation of women in Burundi's social and economic development.

In terms of sectoral policies, MINAGRI drafted strategic plans for the entire agricultural sector at distinct points in time (in 1993, 1995, and 1999). Nevertheless, except for 1999, plans for previous years were never finalized due to recurrent bouts of civil war in the country. In 1999, MINAGRI was able to finalize and adopt a National Agricultural Policy (NAP) for 1999-2011, but this policy was never implemented owing to a resurgence of conflicts. In May 2006,

MINAGRI produced another NAP and a 5-year action plan (2006-2010), in line with the I-PRSP, to reduce the degradation of natural resources, food insecurity, and poverty in Burundi.²

The objective in the short run is to revive the agricultural sector and surpass the pre-war levels of production, aiming to reach an agricultural growth rate of 5% by 2010. In the short-term the targeted strategies include (i) the rapid constitution and promotion of production inputs to reverse the declining trends in yields and (ii) mobilizing all local financing opportunities, revising the methods of supporting and assisting the population, and ensuring a transparent pricing policy. The long-run strategies are to increase agricultural yields, expand output markets, improve the quality of export products, manage the budget allocated to the agricultural sector, and create a favorable climate for private investments.

The intervention areas defined are:

1. **Agriculture:** Register and zone agricultural lands; agricultural mechanization and establishment of irrigation infrastructure; improve the availability of fertilizer and CPPs; build a fertilizer production plant; organize farmer training sessions on a regular basis; train extension agents; rehabilitate seed production centers; develop and promote a rural agricultural policy and system of savings and credit by cooperatives; and encourage training of producers' associations.
2. **Livestock:** Integrate agricultural production and cattle breeding activities; ensure an adequate supply of inputs for feed production; replenish livestock; train cattle breeders on a regular basis; promote feed production enterprises; ensure health and safety aspects.
3. **Agro-industry:** Promote conservation and marketing of agricultural surplus; promote agricultural processing and initiatives for processing, conservation, and marketing of agricultural products.
4. **Export crops:** Revive and diversify export crops; improve production and quality of cash crops (coffee, tea, sugar, cotton, sugar cane, tobacco, rice, and palm oil); strengthen research on adequate varieties, especially fruit varieties; develop marketing networks; privatize the sector.

² République du Burundi. 2006. Politique Sectorielle du Ministère de l'Agriculture et de l'Élevage: Relance et Développement Durable du Secteur Agricole.

5. **Fish production:** Improve productivity; prevent water pollution; control and regulate fishing techniques; establish fish conservation network; and stimulate research.
6. **Agro-forestry:** Bio-diversity protection and conservation; identify the degree of degraded areas and make reforestation plans; regulate wood sector (coal); set-up an educational program of the population of forest fire safety and tree cutting; and research on adapted management (tree-food production).

Specific targets include growth rates of 23% for cotton, 22% for staples, 17% for coffee, and 8% for tea. It is estimated that the implementation of this action plan requires 532 billions of Burundi Francs (BF). To achieve these objectives, several agricultural projects are being implemented in Burundi. Table 1 below provides details on the ongoing projects.

Table 1. Current Agricultural Projects in Burundi

<i>Project</i>	<i>Budget</i>	<i>Length</i>	<i>Donor</i>	<i>Ministry Responsible</i>	<i>Intervention Areas</i>
1. Program for the rehabilitation and support to the agricultural sector of Burundi (PRASAB)	\$40 million	2004-2010	International Development Agency (IDA)/Global Environment Fund (GEF)	MINAGRI	Entire Country
2. Pan-African Program for Epizooties Control (PACE)	Euros 715,734	2003-2006	European Union (EU)	Department of Livestock (DGE)	Entire Country
3. Program of priority rehabilitations, within the framework of the disengagement of the state, of cash crops (coffee, tea, cotton)	Euros 21.7 million	2004-2005	EU/ Exports Stabilization (STABEX)	Ministry of Finance (MINIFIN)	Coffee, tea, and cotton production zones
4. Food Crops Production Support Project (FCPSP) (Projet d'appui à la production vivrière)	Euros 3 million	2003-2005	STABEX	Ministry of Finance (MINIFIN)	Provinces of Ngozi, Muyinga, Kayanza, Karusi, Kirundo, Gitega, Cankuzo, Ruyigi and Muramvya
5. Horticulture and Fruit Rehabilitation Program	Euros 2.5 million	2003-2005	STABEX	Ministry of Finance (MINIFIN)	Imbo, Muramvya, Kayanza
6. Rural Roads (of agricultural interest) Rehabilitation Program	BF 6.9 million	2003-2005	EU/IDA	Ministry of Finance (MINIFIN)	Entire Country
7. Support to the Micro Credit Sector	\$7.5 million	2003-2005	IDA/ UNDP	Ministry of Finance (MINIFIN)	Entire Country
8. The Program for Revival and Development of Rural Areas (PRDMR)	\$34 million	2000-2006	International Fund for Agricultural Development (IFAD)	Ministry of Planning	Provinces of Cibitoke, Gitega, Karusi, Kayanza
9. Support to the agricultural sector	Euros 4.85 million	2003-2005	Belgian Cooperation (BC)	MINAGRI	Provinces of Kirundo, Mwaro, Makamba
10. Basic infrastructures	Euros 2.98 million	2003-2005	BC	MDC	Entire Country

Source: MINAGRI, 2006.

C. Nature, Scope and Objectives of the Action Plan

The Dutch Embassy in Rwanda has awarded IFDC a 5-year project called CATALIST—Catalyze Social and Environmental Stability through Agricultural Intensification in Central Africa's Great Lakes Region—to speed up broad-scale agricultural intensification in Central Africa's Great Lakes Region. The project seeks to develop programs, in line with Burundi's

national agricultural policies framework, to change the existing unsustainable self-sufficiency oriented smallholder farming systems into sustainable market oriented production systems through adoption of external inputs and their efficient use, intermediate forms of mechanization, and product chain development. Intensifying input-based production, centered on increased use of improved seeds, fertilizer, and crop protection products, is needed to realize the full potential of the agricultural sector of Burundi. However, agricultural intensification calls for adequate and efficient use of agri-inputs and well-functioning input markets.

At the onset of the CATALIST project, a team was sent to Burundi to provide the project staff with in-depth insight in agricultural intensification and market development opportunities. This information was used to draft a need-based and practical action plan for the development of fertilizer and seed markets and access to credit. The main goal of the action plan, which is presented in Section III of this report, is to propose a set of measures to develop well-functioning input markets—ones that ensure the availability and affordability of an adequate and timely supply of good quality inputs at low prices to farmers in Burundi. The key issues addressed in agricultural input markets (AIMs) assessments are:

- Current and past consumption levels and application rates of fertilizer and seed.
- Geographical outreach of retailers and their characteristics.
- Delivery and quality of extension service.
- Production, import levels, and costs.
- Access to finance by farmers and traders.
- Government policies, regulatory and legislative framework.
- Donors' programs and impacts.

The assessment was conducted during November-December 2006. The assessment team traveled to Gitega and Bujumbura and interviewed several stakeholders ranging from agri-input traders, farmers' cooperatives, and financial, government, and development institutions (see Annex Table 1). The assessment team included:

H.B. Singh, Senior Marketing Specialist and Team Leader, IFDC

O. Camara, Agricultural Economist, IFDC

F. Muhhuku, Seed Specialist, IFDC Consultant
C. Nzojibwami, Coordinator, HelpAge Burundi

This report is the result of a synthesis and examination of the information gathered during the assessment. Section II presents an assessment of agricultural input markets in Burundi, presenting an examination of the fertilizer and seed markets, access to finance, and the constraints affecting the performance and functioning of agri-input markets. This is followed by proposed recommendations to improve the functioning and performance of AIMs in Burundi in Section III and Implementation Arrangements in Section IV.

II. An Assessment of the Agricultural Input Markets in Burundi

A. An Assessment of the Fertilizer Market

Fertilizer Consumption and Demand—Fertilizer consumption in Burundi is extremely low. During 1995-2000 the average annual consumption remained in the range of 7,000 tons. It is estimated that the fertilizer consumption during 2000-2006 has been in the range of 10,000 tons peryear (as per information provided by MINAGRI). The annual consumption for 1996-2000 and estimated figures for 2001-2005 are shown in Table 2. During the early 1970s, a limited range of fertilizer was launched in the country and included NPK 17-17-17, DAP, urea, and KCl. Lime is also used and is considered more as fertilizer. The fertilizer product range therefore is limited and farmers/dealers do not have much choice in the selection of the products. The crops fertilized by farmers in Burundi include food crops, coffee, palm oil, sugarcane, rice, tea, and tobacco. The pattern of fertilizer consumption presents a wide variation among various regions and crops, as shown below. The estimates have been worked out on the basis of MINAGRI and Abt Associate reports.

Table 2. Fertilizer Use by Crop (%)

Region	Crop	Share
		(%)
Central plateau	Food crops and coffee	49
High altitudes	Tea and rice	15
Low altitudes	Rice, tobacco, cotton, and palm	23
Eastern lowlands	Sugarcane	13

Although several factors play a role in a farmer's decision on the use and quantity of fertilizer to be applied to a crop, some factors are key to such a decision. The following analysis based on region and crop provides some idea of the factors that influenced farmers to use fertilizers. In the high and low altitude areas of the Central Plateau, high response to fertilizer use was the key factor for the application of fertilizer to crops like beans, groundnuts, soy, Irish potato, wheat, rice, and peas. In the high altitudes of the Central Plateau and on crops like beans, Irish potato and cash crops, farmers considered the price of the crop as the key factor.

The recommendations for fertilizer application in terms of fertilizer products for major crops grown in the country are shown in Table 3.

Table 3. Fertilizer Recommendations for Some Important Crops in Burundi

Sr.No	Crop	Application Rate
1	Sorghum and maize	100 kg DAP, 50 kg urea, and 50 kg KCl
2	Wheat	100 kg DAP, 25 kg urea and 50 kg KCl
3	Irrigated Rice	100 kg NPK 10-20-20, 150 kg urea
4	Irish potato	100 kg DAP, 50 kg urea, and 100 kg KCl
5	Cotton	200 kg NPK and 50 kg urea
6	Coffee	200 kg urea
7	Tea	400–600 kg 20-10-10
8	Sugarcane	300 kg SSP for 3 years, 250 kg of urea, and 250 kg KCl
9	Palm Oil	1.5 kg of KCl, 0.25 kg of Ca per plant

Source: MINAGRI. The above fertilizers need to be upgraded based on soil nutrient balance, nutrient requirements of crop grown, and availability of fertilizer products.

Fertilizer Supplies—Burundi does not have a fertilizer production facility except for some reserves of phosphates. The entire requirement of fertilizer is imported from regional

/international markets. During 1996-2006, a quantity of about 100,000 tons of fertilizer was imported by Rwanda importers. The yearly imports are given in Table 1 and estimated costs of imports are outlined in Table 4.

Table 4. Fertilizer Imports—Burundi (1996-2005)

Year	Import
	(tons)
1996	4,444
1997	5,683
1998	6,797
1999	9,968
2000	4,402
2001-05	12,000-15,000

Source: Import data for 2001 to 2005 are as per estimates by MINAGRI.

Fertilizer Transportation and Delivery Prices—Due to small lots and uncertainty of demand, Burundi importers are unable to take advantage of the lower prices in the world market. The purchases are generally made from fertilizer traders/exporters based at ports/markets in neighboring countries, the European Union, and Russia. The route, which has recently become more important, is the shipment through Dar es Salaam port in Tanzania. From Dar es Salaam, fertilizer is moved by rail to Isaka covering 900 km and then moved by road to Bujumbura covering 580 km. In the country there are two main warehouses: one in Bujumbura and one in Gitega. There are 30 small and medium warehouses, but they are not frequently used for fertilizer storage. The mode of transport from seaports to Bujumbura is by truck, which will hold 25-28 tons. Trucks are not allowed to carry loads of more than 25 tons because of the condition of the roads. Delays in transit, however, are a common feature of road movement. The distance from the nearest seaports to destinations in Burundi are in the range of 1,500-2,000 km. One of the reasons for high transport cost is the long distances and bad condition of roads. The truck drivers are required to pay some unauthorized expenses at inter-country checkpoints and other barriers. The security concerns were a serious issue, but the situation has improved to a great extent in recent years.

The two commonly used seaports in neighboring countries are Mombassa and Dar es Salaam. The fertilizer is generally moved directly by road covering 1,200 to 1,500 km to Bujumbura or Gitega and paying a very high average freight of \$190 to \$220 per ton (Table 5).

Table 5. Road Distance and Estimated Freight From Nearest Ports to Burundi, Rwanda, and Congo

From	To	Distance	Countries Crossed	Transportation Cost
		(km)		(US \$/ton)
Mombassa	Kampala (Uganda)	1,200	1	160
	Kigali (Rwanda)	1,800	2	240
	Bujumbura (Burundi)	2,200	3	320
	Goma (DRC)	2,200	3	320
	Bukavu (DRC)	2,700	3	360
Dar es Salaam	Kampala (Uganda)	1,700	1	100
	Kigali (Rwanda)	1,500	1	212
	Bujumbura (Burundi)	1,500	1	212
	Goma (DRC)	2,200	2	272
	Bukavu (DRC)	2,350	2	309

Structure of Inputs Supply Chain—A standard input supply chain consists of (1) importers, (2) wholesalers, and (3) retail dealers. A brief description of the structure and marketing strategy of operators of the input supply chain in Burundi, at three levels of the marketing chain is summarized below.

Fertilizer Importers: Having no local production, the entire requirement of fertilizers is met through imports. The supply chain is mainly dependent on the performance of importers, the funding position of the Fertilizer Revolving Fund, and demand projections by the agri-commodity companies. In recent years, the availability of funds has generally been insufficient resulting in fewer imports. One reason for inadequate imports is the significant increase in the cost of fertilizer purchased by Burundi importers in small quantities. A list of private enterprises, engaged in the importation of fertilizers based at Bujumbura, Burundi is given:

- APPRO SERVICES
- SOCOMIPP
- TEMBO
- GASHAKA FRANCIS
- RUTA COMPANY

- BRITISH TOBACCO CO.
- SHIMUZA
- RUTA

The quantity imported is determined by the tender orders won by individual importers and the funds allocated by the GOB through the fertilizer revolving fund. The consignments are small ranging from 500 to 2,000 tons. Tea, coffee, and rice parastatals buy their requirements from the private importers and are not allowed to directly import fertilizer. Almost the entire incoming stocks are stored in private warehouses maintained by the importers. During 1995–2005, quantities of about 100,000 tons of fertilizer products were imported by the private sector in Burundi. The discussions with importers revealed that their business strategy is oriented toward the fulfillment of effective fertilizer demand of public sector agencies. This is purchased with funding received from the BNDE fertilizer revolving fund and sold through a tendering process. The fertilizer market demand is neither collected, nor considered important in determining the purchase plan. Except for one or two importers, none others were found buying additional quantities using their own funds for supplies to general farmers.

Table 6. Breakup of Fertilizer Importation Costs—Burundi

No.	Cost Item	NPK (17-17-17)	DAP	Urea
		(US \$/ton)		
1.	c.i.f. Dar es Salaam Port	380.00	417.00	380.00
2.	Road transportation up to Bujumbura	190.00	190.00	190.00
3.	Delivered cost at Bujumbura			
4.	Customer fee/other related costs	15.50	15.50	15.50
5.	Hidden costs	4.00	4.00	4.00
6.	Parking fee—custom	1.50	1.50	1.50
7.	Bank charges	15.26	15.26	15.26
8.	Insurance fee for transportation	1.80	1.80	1.80
9.	Unloading fee	2.90	2.90	2.90
10.	Rent for private storage for average 2 months	10.10	10.10	10.10
11.	Staff cost	8.0	8.0	8.0
	Total cost to importer/wholesaler (1-11)	629.06	666.06	629.06
	Sale price ex-Bujumbura	641.00	679.50	641.00

Source: Private Importer unverified figures.
Small lots ex-Dar es Salaam.

Wholesale Dealers: In Burundi, the function of wholesale purchase from importers and sale/supply to small customers/farmers is performed by the public sector agencies and agri-commodity companies as shown:

- Tea parastatals.
- Coffee parastatals.
- Regional Society for the Development of Imbo (SRDI).
- Cooperative Unions.
- Agri-commodity companies.

The business strategy of almost all of the above agencies, except for private dealers, is the supply of fertilizer to their outgrower farmers, on credit, and realized the amount from sale proceeds of the crop. The parastatals generally take the help of the government administration to distribute fertilizers. The recovery rate varies but is generally very low. The price of procurement of crop produce from farmers is finalized through negotiations. Some profits for the farmers are built into the price. Similarly, tea and coffee parastatals also provide some profits for outgrowers/farmers, based on the cost of cultivation. The sale to retail dealers or direct to farmers by private wholesale dealers/importers are in very small volumes. The customers are required to pay cash and carry their goods from the business premises of the suppliers (Bujumbura).

Retail Dealers (Third Link of Supply Chain): Sale of goods directly to consumers made from sale outlets, in small volumes is called as the retail function of a supply chain. In the case of agri-inputs, such retail outlets are mostly located in the rural agricultural markets. There are few retail outlets in Burundi and only at a few locations. The business functions of wholesale and retail are generally combined. In some cases even the three functions of import, wholesale, and retail sale were found conducted by the same enterprise. Almost all the parastatals and agri-commodity companies conduct retail business by directly supplying fertilizers and other inputs to farmers. The number of rural agri-input retail dealers/outlets could not be ascertained or even estimated by the wholesalers or MINAGRI. Only one wholesaler in Bujumbura, who is the leading importer, could indicate a rough estimate of about 50-100 retail dealers, who come to

buy the inputs in small units. This also includes the farmers growing small vegetable and fruit plants. Fertilizers are generally sold in 1 kg packets, packed in polythene packs manually sealed with threads or a stapler, with no product labeling printed on the packing material. The business linkages between the three links of the input supply chain are very weak, and in most cases, completely non-existent. There is little point of purchase publicity and/or effort of product promotion. Farm advisory recommendations or after-sale customer relations is at a rudimentary stage.

Fertilizer Prices—The Government of Burundi fixed the prices of fertilizer during 1998–2000. The prices vary from crop to crop as shown in Table 6.

Table 6. Crop Fertilizer Prices and Subsidy (1998–2000)

Crop	1998	1999	2000	Subsidy
	(BF/50 kg)			(%)
Food crops (DPAEs)	270	300	400	
Coffee (OCIBU)	240	240	240	100
Tea (OTB)	240	240	240	
Rice (SRDI)	380	380	380	100
Tobacco (BTC)	150	150	150	
Cotton (COGERCO)	270	300	300	
Palm oil(OHP)	270	300	300	

DPAE = Provincial Department of Agriculture and Livestock.

OCIBU = Coffee Board of Burundi.

OTB = Tea Board of Burundi.

BTC =Burundi Tobacco Company.

COGERCO = Cotton Management Company.

OHP =

- a. The above prices were based on the indicative prices f.o.b. Dar es Salaam. The prices for 2000 were:

Urea BF 240 /50 kg-bag.

NPK BF 280/50 kg-bag.

DAP BF 300 /50 kg-bag.

KCl BF 280/50 kg-bag.

After the liberalization, prices were decided on the basis of indicative prices at the port plus transportation and delivery costs plus a profit margin of BF 500/50-kg bag. The private dealers, however, complained of the low profit margin.

B. An Assessment of the Seed Market

The status of the seed industry has suffered from years of civil strife and is currently fragmented and mostly informal. Use of improved seed by farmers is below 1%. The bulk of seed production is done by NGOs as part of relief and rehabilitation efforts. There are some established structures, but most of them are not functional at the moment. Therefore, the task to develop the seed industry, in particular, and the agri-input distribution system, in general, is extremely challenging.

The GOB is committed to improving this situation and appropriate legislation is being drafted. For instance, the law on the production and marketing of inputs is soon to be passed by Parliament, according to MINAGRI. This law will elaborate the institutions responsible for the different functions. The seed law, enacted in 1993, is also being updated and harmonized with seed laws in the East African Community (EAC) region. However, there is deep-rooted mistrust of the private sector and a belief that input prices are too high because traders are exploiting farmers. But the reality is that there are policy, legal, technical, infrastructural, and market weaknesses, which need to be addressed if the input industry is to serve the farmers effectively.

Institutions in the Seed Sector--The seed industry is basically dominated by the public sector and the emergency and relief agencies. Key institutions involved in the seed business include:

- **ISABU:** The Burundi Institute of Agronomic Sciences (ISABU) is responsible for developing agricultural technologies and taking these technologies to rural areas. It is responsible for both crop and animal research. The Department of Production of ISABU is charged with developing new crop varieties, animal breeding, and integrated pest management (IPM). The institute also runs cross-cutting programs including: soil fertility and pedology; agro-forestry; irrigation; and technology transfer. During the war, ISABU

remained operational and was able to pursue research on cassava, sweet potato, rice, maize, wheat, and germplasm conservation thanks to support from the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA) through its regional networks for collaborative research and international research institutions (International Maize and Wheat Improvement Center [CIMMYT], International Institute for Tropical Agriculture [IITA], Centro Internacional de la Papa [CIP], and IPGRI). ISABU also received and continues to get support from several donors' programs: PRASAB, PRDMR, Belgian Technical Cooperation (CTB), Food and Agriculture Organization of the United Nations (FAO), IDA, Global Environment Fund (GEF), and United States Agency for International Development (USAID). These institutions helped support the rehabilitation of research centers and infrastructures, the production of breeder and pre-basic seed, the establishment of strategies to fight against the cassava mosaic virus and research on sorghum, wheat, maize, soy, groundnut, green peas, soil fertility, irrigation and drainage, and pre-extension. ISABU is also receiving support from the Government of Kenya in the introduction and promotion of a new cash crop: macadamia nuts. Other relevant institutions include The Institute of Agronomic Research and Zootechnology (IRAZ), The National Center of Food Technology (CNTA), and The Faculty of Agricultural Sciences (FACAGRO). IRAZ conducts important research on banana and was supported during the crisis by IITA and the FAO. CNTA develops agro-processing technologies including the production of jam from various fruits, fruit juices, and milling equipments. FACAGRO researches topics including rice production in marshlands, mushrooms, and livestock. FACAGRO has a modern biotechnology lab.

- **MINAGRI:** The Directorate for the Promotion of Seeds and Plants, in MINAGRI, is the dominant player in the seed industry. It is responsible for executing and implementing the national seed policy; drafting the seed law and its implementation, including quality control and seed and plant certification; seed and plant regulatory inspection; and promotion of seed and plant production and marketing. Production of certified seed (CS) was done at designated "Seed Centers," where it was relatively easy to monitor the production and marketing. Unfortunately, most of the support to the seed sector was from donors and it was withdrawn due to war, which seriously hampered the activities of the Ministry. One should

also note that MINAGRI is responsible for extension services. In 2004, MINAGRI began implementing a new extension system developed with the help of UNDP and IFAD. The objectives of this new extension system include: definition and implementation of a development plan for agriculture; involvement and coordination of new partners; integration of research in the extension system; participatory approach to extension; greater involvement of women; special attention to local youth; establishment of a follow-up mechanism; definition of the role of various actors; and intensive training of extension agents.

- **NGOs, Farmer Associations, Provincial Departments, and Projects:** With funding from donors, these various institutions are responsible for the final multiplication of seed and its dissemination to farmers. Using pre-basic seed (PBS)] from ISABU, they produce what is regarded as basic seed (BS) and certified seed (CS) but, in actual fact, is informal seed or at best quality declared seed (QDS). Multilateral agencies involved in relief and rehabilitation contract these institutions to produce seed and disseminate it to farmers. It is these agencies that finance most of the activities.

Research and Variety Development—ISABU is responsible for developing new varieties of crops and production of breeder seed (BrS) and PBS. ISABU has been handling crops including:

- Cereals—maize, rice, wheat, sorghum.
- Legumes—beans, French beans, soybeans, groundnuts.
- Root crops—potatoes, cassava, sweet potato, taro, and yam.

Cassava ranks number one for research due to the problem of African Cassava Mosaic Virus (ACMV) and other virus diseases. So far ISABU has developed five varieties resistant to ACMV and is working with the International Institute of Tropical Agriculture (IITA) to tackle the other viruses. Bio-control is used for the management of cassava mealy bug and cassava green mite. The other crops, in order of their priority are: sweet potato, potato, beans, maize, sorghum, and rice.

In maize, seven improved open pollinated varieties (OPVs) have been released with resistance to maize streak virus (MSV). Four rice varieties have been released for lowland production. In addition, four improved varieties of beans have been released, some with enhanced iron and zinc content.

ISABU has benefited from technical and financial support from ASARECA as well as some IARCs like CIMMYT, IITA, CIP, etc. There has also been support to specific programs by some agricultural projects like PRASAB and PRDMR. In addition, CTB, FAO, and various NGOs have supported ISABU in the production of BrS and PBS.

As earlier stated, ISABU passes on the PBS to a number of projects, NGOs, farmer associations, and provincial departments for further multiplication of BS and CS. These producers are supposed to be monitored by MINAGRI, but in reality no inspection takes place and seed quality is generally poor. Some co-ops, notably, the rice co-op (SRDI) organize their own seed multiplication using selected farmers. They obtain PBS from ISABU, and they also do on-farm variety selection under the supervision of ISABU.

Seed Production and Supply—There are over 50 seed centers across all the agro-ecological zones of the country where seed production was formerly done by farmers and farmer associations, and MINAGRI could inspect and monitor the seed. Following reduction in donor funding due to the civil war, most of these centers are now abandoned and derelict. A few are still being used by farmers on contract to NGOs on an ad hoc basis. Only Kajondi seed center in Bururi province, Bututsi region still has some infrastructure in the form of machinery, stores, and factory.

There is one unique private seed multiplier, Agrobiotec, a company responsible for tissue culture (TC) multiplication of bananas, potatoes, and planning to start on cassava, pineapples, and taro. The TC laboratory was established in 1998 and has been instrumental in the fight against banana bacterial wilt disease by supplying disease-free planting materials. It collaborates with the International Network for Improvement of Banana and Plantain (INIBAP) in France. The TC plantlets are sold to individual farmers, farmer associations, government institutions, NGOs, and relief agencies.

Among the agencies, FAO is taking a lead in the rehabilitation of seed infrastructure. In one project funded by the Belgian government, FAO is undertaking the following activities.

- Rehabilitation of the production systems for quality seed and planting materials by supporting groups and associations of seed producers for the following crops:
 - Potatoes: 49 ha (98,000 kg) .
 - Sweet potatoes: 175 ha (14,000,000 cuttings).
 - Beans: 1,092 ha (87,380 kg).
 - Soya: 320.65 ha (25,650 kg).
 - Groundnuts: 128 ha (11,540 kg).
 - Maize: 681 ha (27,250 kg).
 - Rice: 1,908 ha (114,465 kg).
 - Sorghum: 2,200 ha (22,000 kg).
- Tertiary multiplication of cuttings of cassava from mosaic tolerant clones in partnership with NGOs and the Provincial Department of Agriculture and Livestock (DPAE) partners (600 hectares).
- Rehabilitation of the community's infrastructure and equipment, notably community storerooms for quality seeds.
- Training and production of technical brochures.

It is this work by agencies and NGOs, plus some cooperatives, that passes for formal seed production. Technically speaking, however, this seed can at best be regarded as quality declared seed since there is no official certification and control even though the parent seed is sourced from ISABU. All vegetable seeds are imported by the agencies and NGOs. Since seed supply is still part of relief and rehabilitation, it is difficult to get a realistic estimate of demand and supply. Efforts to revive the formal seed sector should thus begin by establishing the demand and supply situation.

Seed Marketing—Seed diffusion is now largely informal. Once early generation seed leaves ISABU for further multiplication, the marketing of that seed is not clearly defined. Since NGOs and relief agencies are taking a lead in seed multiplication, it can be assumed that much of

the seed is given freely in an attempt to revive the farmers' production capacity. For instance, FAO has been distributing seeds, fertilizers, and tools as part of emergency relief. But it has also been organizing seed production with ISABU, farmer associations, and provincial departments on contract and then coordinating distribution with several NGOs. As part of this exercise, FAO plans to distribute the following quantity of seeds in 2007:

- Potato: 218,500 kg.
- Sweet Potato: 5,400,000 cuttings.
- Beans: 6,240 kg.
- Groundnuts: 1,630 kg.
- Maize: 7,050 kg.
- Rice: 44,300 kg.
- Sorghum: 4,930 kg.

In the case of co-ops, seed is given out to members, but its cost is deducted from their crop at the time of marketing. It was not possible to establish if there are any input retailers who are selling field crop seeds, but it is highly doubtful.

ISABU sells PBS at nominal prices with no regard for actual production costs. All cereals, legumes and potato seeds are sold at 400 FBU per kilo, while cassava and sweet potatoes are sold for 7 FBU and 5 FBU per cutting, respectively. Agrobiotec is selling TC banana plantlets at 1,000 FBU each. One NGO procured rice seed from SRDI at 500 FBU/kg. It is reasonable to assume that farmer associations and co-ops that produce seeds do set only nominal prices for the seed. There is no systematic seed pricing mechanism just as there is no commercial seed marketing system.

Seed Legislation and Quality Control—MINAGRI is responsible for enacting and implementing national policies in all areas of agricultural development. A national seed policy exists and the seed law is being updated and harmonized with the other countries in the EAC region. The law empowers MINAGRI's Office for the Promotion of Seeds and Plants to inspect, monitor, and certify seeds. Though the law provides for the existence of the National Seed Council, the National Seed Service, and the Technical Committee on the Registration of Species,

no effort has been made to establish a functional variety release procedure, and there is no national variety register. There is also no Plant Variety Protection (PVP) legislation and no national seed plan.

The entire quality control and certification system is almost defunct and most of the seed used by farmers is not certified. It is produced and disseminated informally. The seed laboratory at MINAGRI needs re-equipping.

C. Access to Finance

The banking system in Burundi is in its infancy stage: small, weak, and ineffective. Its development has been and still is hampered by a non-conducive policy and institutional environment characterized by macroeconomic instability (high and unstable inflation rates—16%), weak legal systems (unpredictable, time-consuming, costly, and non-enforcement of contracts) and dearth of credit information. This undoubtedly translates into a small supply of agricultural credit, a problem difficult to overcome given the intrinsic risky nature of agriculture. A fundamental constraint is the fact that high risk and uncertainty surround the agricultural sector about expected loan repayment because agricultural output is subject to the vagaries of the weather. As a result, although agriculture is the largest contributor to Burundi's economy, it holds the smallest share of bank loans—3%.

As part of the agricultural input markets assessment, issues of access to credit were examined to determine how well public and private lenders serve the financial needs of farmers, farmers' associations, and agri-input traders' in accessing credit for the purchase of seed and fertilizer. This was seen as a crucial component of the assessment because the availability of financial services at competitive prices and the access of farmers and agri-input traders to such services are essential to overcome declining rates of agricultural productivity. The assessment revealed:

- Mechanisms through which farmers, farmers' associations, and traders obtain credit for the purchase of agri-inputs.

- Public sector activities and projects targeted to improving the availability and accessibility of agricultural credit.
- The constraints limiting agricultural entities' access to credit.

Mechanisms through which Farmers, Farmers' Associations and Traders Obtain Credit for the Purchase of Agri-Inputs

Table 8 summarizes the mechanisms for farmers, farmers' associations, and traders to obtain credit to buy seed and fertilizer.

Farmers—Farmers in Burundi obtain loans for the purchase of agri-inputs mainly through three informal credit mechanisms: trader credit, buyer credit, and credit from farmers' organizations. The first mechanism, *trader credit*, involves the provision of in-kind advances by agri-input retailers/stockists to mostly cash crop growers for the acquisition of seed, fertilizer, and crop protection products (CPPs). Traders first establish farmers' creditworthiness through field visits. Traders do not charge any interest rate on loans that are repaid within 7 days. After that time, the average interest rate is 25% for one month. The loan recovery rate is 72%. The loan size ranges between 10,000 (US \$10) and 3,600,000 (US \$3,600) FBU.³

Buyer credit refers to contract farming and outgrower credit schemes. Under such schemes, milling factories provide seed and fertilizer on credit (always in kind) to wheat and maize producers based on a product purchase agreement. Repayment of the initial credit is deducted at harvest time when the farmer sells the product. This enables farmers to acquire quality seeds and fertilizers and helps milling companies secure produce of sufficient quality and quantity for their operations. There is no explicit interest rate charge to these farmers. The existence of one or very few buyers minimizes the risk of default because farmers have very few alternative sources of credit for the next year.

The third credit mechanism available to farmers in Burundi is *credit from farmers' organizations and agro-industries*. Under this scheme, farmers' organizations, such as rice the producer associations in Network of Rice Producers Associations of Imbo (CAPRI) and agro-

³ Exchange rate is US \$1 = 1,000 Burundi francs (BF).

industries OTB and OCIBU provide credit to their members based either on repayment at harvest or on agreed purchase.⁴ About 75% of association lending is in kind, primarily seeds, fertilizer, and pesticide. Most rice associations offer inputs for production on credit to their members. This credit mechanism is linked with both input supply (lending in kind) and output (tied to the sale of produce). Repayment can be made in cash or in kind at harvest time when the farmer sells his output. The loan recovery rate is around 70% for farmers. A 2% penalty fee is added to default loans and members must repay the entire amount the following season. The recovery rate after two seasons is nearly 100%.

Apart from these informal credit mechanisms, individual farmers have no access to credit from formal lending institutions, even with public institutions such the BNDE, as they are unable to meet the collateral requirements and properly complete loan application forms.

Table 8. Sources of Credit for Agri-Input Traders and Farmers

Primary Agricultural Clients	Lending Institutions	Loan Size	Collateral Requirement	Processing Fee	Bank Charges	Interest Rate	Length of the Loan	Loan Recovery Rate
		(\$)	(%)			(%)		(%)
Farmers	Farmers' Organizations	in kind	membership	0%	0	2.50%	cropping season	70%
	Trader Credit	\$9 to \$3600	0%	0%	0	25%	1 month	72%
	Buyer Credit	in kind	contract	0%	0	0	cropping season	100%
Farmers' Organizations	National Bank for Economic Development (BNDE)	Up to \$500,000 in form of letters of credit	20% down payment; land titles; mortgage	1%	\$20	14%-36%	Less than 24 months	NA
	COOPEC; CECM; COSPEC; FDC; COPED; PGRRR; UCODE	\$500 to \$500,000	100% in form of solidarity group caution, cows, coffee plantations	1%	\$20	10%-36%	3-12 months	85%
	BANCOBU, BCB, People's bank, SBF, Interbank, FINALEASE Bank, BBCI, and BGF.	Letters of credit	At least 20% down payment; factory mortgage	2%	NA	18%-36%	Less than 24 months	NA

⁴ CAPRI is constituted of 17 rice associations. The day-to-day management of these associations is the task of SRDI.

Agri-Input Importers; OCIBU; OTB	BANCOBU, BCB, People's bank, SBF, Interbank, FINALEASE Bank, BBCI, and BGF.	Letters of credit	200% in form of mortgage	3%		20%	1 year	
----------------------------------	---	-------------------	--------------------------	----	--	-----	--------	--

BANCOBU = Commercial Bank of Burundi.
 BBCI = Burundi Bank for Trade and Investment.
 BCB = Bujumbura Credit Bank.
 BGF = Management and Financing Bank
 BNDE = National Bank for Economic Development.
 CECM = Savings and Loan Cooperative.
 COOPEC = National Federation of Savings and Loan Cooperatives.
 COSPEC = Solidarity Savings and Loan Cooperative for Farmers of Cibitoke.
 COPED = Education and Development Advisory.
 FDC = Community Development Fund.
 PGRRR = Ruyigi Rural Development Project.
 SBF = Burundi Financing Firm.
 UCODE = Union of the Co-Operatives of Development.

Farmers' organizations are able to obtain third-party loans for the purchase of fertilizer, seed, and CPPs primarily from the BNDE—a public lending institution; microfinance institutions such as COOPEC, CECM, COSPEC, and UCODE; and a few commercial banks. The BNDE provides the bulk of financing for the agricultural sector and has benefited in recent years from agricultural credit guarantee funds from the French Agency of Development to increase the availability of agricultural credit.⁵ However, these resources are now exhausted. Coffee, rice, tea, cotton, and tobacco growers' associations obtain short-term loans (less than 24 months for repayment) from the BNDE to buy agri-inputs. Several associations of rice growers, members of CAPRI, in the perimeter of the SRDI have benefited from such loans. Under the umbrella of SRDI, CAPRI has access to annual loans of 500 million FBU provided by the BNDE under the Agricultural Guarantee Fund for rice production activities. BNDE's collateral requirements include a 20% down payment, land ownership titles, and/or mortgage. The interest rate ranges between 14%-36%, depending on whether associations qualify for the Agricultural Guarantee Fund provided by donors and the GOB.

Micro-finance is an important part of the agri-input financing, but most of the industry is managed by NGOs and is at its infancy stage and growing rapidly. The MFIs regulation act was only passed in July 2006, because most of the industry was unprofitable and causing serious concerns. MFIs are led by COOPEC—Savings and Loans Cooperatives created in 1984 with the

⁵ CECM. 2005. Annual Report.
 BNDE. 2005. Annual Report.

goal of mobilizing rural households' savings and providing micro-credit to its members.⁶ There are more than 20 COOPECs established in different regions of the country; their target groups are mainly the rural and urban populations with low incomes. However, high interest rates, 19%, prevent most individual farmers from accessing credit. Farmers' associations benefit from lower interest rates, 10%, for lean season credits and loans for seed, fertilizer, and cattle.

Other important savings and loans cooperatives include the Financial Company for Development (COFIDE) and UCODE. These institutions operate in the provinces of Ngozi, Kayanza, Kirundo, and Muyinga and support rural development by granting small loans to coffee producers' associations, primarily. They have had problems with loan repayments due to climatic risks or the weak purchasing power of the recipients. Interest rates range from 20% for input credit to 30% for lean season credit.

Farmers' associations can also access credit through Twitezimbere—a local NGO that provides limited financing to producers' associations, at 22% interest rate charges, for activities related to cattle breeding, small business, and agro-processing. Other MFIs include: COSPEC, COPED; Saving and Loans Mutual (MUTEC); and Burundi Direct. Such loans are guaranteed by solidarity cautions and must be repaid in less than a year.

Farmers' organizations occasionally receive credit from commercial banks such as, BANCOBU, BCB, People's Bank, SBF, Interbank, FINALEASE Bank, BBCI, and BGF. These institutions provide loans in the form of letters of credit for the purchase of agri-inputs and factory equipment mostly to farmers' associations related to agro-businesses (e.g., OCIBU, OTB, COGERCO, BTC, etc).

Agri-Input Traders and Agro-Industries—Agri-input procurement is capital intensive. Burundi has a vast micro-finance sector providing small loans to farmers' organizations but a commercial banking sector that remains highly inaccessible to agri-input traders. Agro-industries, such as OCIBU and OTB, however, have easier access to credit to buy fertilizer

⁶ Gouvernement du Burundi /Programme des Nations Unies pour le développement. Mars 2004. Renforcement des capacités en microfinance pour le Burundi. Agence d'exécution : Bureau internationale du travail (BIT).

because they are government structures. Access to finance for agri-input traders is extremely constrained. A small number of agri-input importers, wholesalers, and retailers are able to access short-term loans (6 to 8 months) from commercial banks such as BBCI and BANCOBU. Collateral requirements for such loans can amount to 200% of the value of the loan. Average interest rates are 20% and the length of the loan is 1 year.

Public Sector Activities and Projects Targeted to Improving the Availability and Accessibility of Agricultural Credit

The initiatives from donors and the GOB aimed at increasing loans to the agricultural sector are very scarce (Table 0). In 1999, the GOB established a community development fund (CDF) of 100 million BF to finance agricultural production and cattle breeding activities. However, this fund appeared insufficient vis-à-vis of the needs expressed in the entire country. Today, the only lines of credit and the Agricultural Guarantee Fund available are the ones being sponsored by IFAD, the GOB and the Belgian Cooperation.⁷ In 1999, IFAD began implementing a 40-year project, the Rural Recovery and Development Program (RRDP). Through this project, IFAD used two mechanisms for providing inputs to farmers: (1) during the first year, essential inputs were distributed free-of-charge to help households most affected by the war to resume production; and (2) financing was provided to ensure the commercial availability of fertilizers over the longer term. For the latter, a revolving fund was set up to facilitate imports and distribution through local traders serving the communities producing tea, coffee, cotton, and rice.⁸ The project has increased lending by BNDE and MFIs to farmers' associations for agri-inputs' purchases.

⁷ Gouvernement du Burundi /Programme des Nations Unies pour le développement. Mars 2004. Renforcement des capacités en microfinance pour le Burundi. Agence d'exécution : Bureau internationale du travail (BIT).

⁸ International Monetary Fund (IMF). August 2006. Burundi: Selected Issues and Statistical Appendix. IMF Country Report No. 06/307.

IFAD. 1999. Report and Recommendation of the President to the Executive Board on a Proposed Loan to the Republic of Burundi for the Rural Recovery and Development.

Table 9. Public Sector Initiatives

Project	Financing Agency	Begin-End	Type	Amount in USD \$
RRDP	IFAD	1999-2039	Loan	\$10.3 million
PRASAB	IDA; GEF	2004-2010	Grant	\$40 million
PRDMR	IFAD; OPEC; WFP; GOB	2000-NA	Grant	\$34 million

PRASAB = the Agricultural Program of Rehabilitation and Sustainable Land Management

PRDMR = the Program for Revival and Development of Rural Areas

In addition, the country has two programs targeted to agri-input traders and farmers:

- **PRASAB** project was established by the GOB from donor funds to restore agricultural output through financing of economically and ecologically viable production activities. The PRASAB project is a 6-year program (2004–2010) that benefits from a \$40 million fund provided by IDA (\$35 million) and GEF (\$5 million). The project is implemented in 10 rural provinces (Bubanza, Bururi, Cankuzo, Kirundo, Makamba, Muramvya, Muyinga, Mwaro, Ngozi and Rutana). It provides funding for the rehabilitation of marshlands and sustainable land management.
- **PRDMR** project was created in 1998 and began activities in 2000 in four provinces: Cibitoke, Gitega, Karuzi, and Kayanza. It focuses on achieving food security through improved availability of seed and fertilizers for food crop production and increasing incomes by reviving cash crops production (coffee, tea, rice, and cotton). This project benefits from a \$34 million fund (\$20 million provided by IFAD, \$8.30 million by Organization of Petroleum Exporting Countries (OPEC), \$1.16 million by World Food Program (WFP), and \$3.5 million by the GOB).

The Constraints Limiting Agricultural Entities' Access to Credit

Several constraints impede agri-input traders and farmers' access to credit in Burundi. *First*, farmers and agri-input traders have little access to information concerning official savings/loans institutions and, consequently, have a very limited idea of the nature of financing facilities. In fact, banks have a considerable communication problem with the rural environment, in general, and with actors involved in agriculture, in particular. *Second*, the agricultural sector is often considered insolvent and is seen as a high-risk sector for finance institutions because most

farmers are subsistence farmers. *Third*, financial institutions remain largely concentrated in Bujumbura. For instance, the largest institution that provides financing to agriculture, the BNDE, has only one branch, which is in the capital city. Therefore, farmers and traders from remote areas have to walk or drive for many hours not only to open an account or ask for a loan, but also to make a deposit or request information. To add to the cost of time and transport, one must also add the opportunity cost of their absence with respect to daily tasks. Long distances and transportation costs are a major obstacle to access funds from the national development banks and commercial banks located in Bujumbura. *Fourth*, heavy institutional constraints such as administrative procedures and the necessity for guarantees (land ownership title, mortgage) discourage borrowing for investment in the input business. The strict collateral requirements are due to poor loan recovery (due to the high rate of default in the country) and the lack of mechanisms for contract enforcement in rural areas. Importers and dealers find the collateral and other lending terms unattractive given the seasonality of agriculture, the relatively low returns from the inputs business and the high level of risk. Small dealers are reluctant to mortgage their homes, the only property they have, to borrow funds. Furthermore, when a credit request is introduced, banks require technical and financial feasibility study documents for those projects to be set up. These documents must clearly indicate the following points: (1) information on the applicant (identification, experience); (2) overall cost of project implementation; (3) amount of own contribution; (4) amount of credit applied for; (5) period of repayment and desirable grace period. With the problems of illiteracy and the lack of management knowledge, the majority of farmers and agri-input traders are discouraged from accessing these financial services. *Fifth*, agri-input traders and farmers cite banks' high processing fees and charges, the short length of the loans, and loan repayment periods as the most limiting constraints. In addition, loan repayment begins from the time the loan is issued, assuming that farmers are involved in off-farm activities as alternative sources of income. *Finally*, the BNDE's involvement in the agricultural sector largely depends on donor funding.

Conclusions—Difficulties in accessing loans encountered by farmers and agri-input traders reduce the scope of their initiatives and limit their economic and social development. The result is that they are kept in a state of dependency relative to donors' programs, interventions, and daily insecurity. The several existing initiatives and projects from donors and the GOB,

enumerated in the previous section, are highly hampered by bureaucratic bottlenecks and a rigid loan review system that make them inaccessible to many agri-input traders and farmers. For instance, to access the Agricultural Guarantee Fund, potential beneficiaries submit loan application documents to their bank, which analyses them, measures risk, and commits to grant a loan on the condition that it is guaranteed by the Central Bank. The Participating Financial Institutions send the clients' application documents along with a technical evaluation to the Central Bank, which is to decide whether to assume the financial risk given the nature of the loan. Very few loan applications make it through this process. The majority of the loans approved under the AGF scheme are geared toward cash-crop markets. Examples of such projects include building coffee washing stations and tea factories.

Although microfinance facilities are widely available in the regions, the size of the loan given by these institutions is too small to help input business development. As a result, input dealers have limited access to finance for investing in the input business. The majority use their own cash from savings or other business ventures to finance part or all of their input purchases. This limits the size of their orders and increases transportation costs resulting from frequent trips to the bank's location. It also reduces the funds available to invest in market development activities such as extending credit to farmers and providing services such as technical support and delivery.

D. Constraints Affecting the Functioning and Performance of AIMs

As shown in the previous sections, agri-input use in Burundi is among the lowest in Africa. In general, the constraints affecting the performance of AIMs in Burundi are correlated to both macro policy and market development.

D.1. Policy Issues

Policy issues affecting the functioning and performance of AIMs can be grouped into macro policy issues and policy-induced uncertainty resulting from various government interventions despite the liberalization of agri-input markets.

Macro Policy Issues—In spite of substantial improvements in macroeconomic performance since the end of the civil wars, Burundi’s economy remains vulnerable to external shocks. The country relies heavily on foreign aid to finance the government budget.⁹ Central banks must manage foreign aid flows adroitly to prevent appreciations in their currencies, which will result in increases in the price of tradable goods such as fertilizers, seeds, and CPPs. The GOB has adopted a floating exchange rate regime, which leads to fluctuation of the exchange rates according to the evolution of the supply and demand of currencies. As a result, the Burundi franc has fluctuated considerably against the dollar. For instance, between 1995 and 2006, the exchange rate depreciated by more than 350% relative to the U.S. dollar, from 278 FBU/\$ in 1995 to 1045 FBU/\$ in 2006.¹⁰ Given the dependency of Burundi on imported agri-inputs, the depreciating and fluctuating exchange rate has a direct impact on the local prices of fertilizer, seed, and CPPs. It translates into risk and uncertainty for agri-input importers. Unless there are efficient banking sectors to provide larger loan sizes to agri-input importers on favorable terms and conditions to finance the purchase of foreign currencies, devaluations of Burundi francs will result in reduced sizes of imports and increases in the price of agri-inputs. Importers will undoubtedly pass the whole price increase to farmers.

As it is, high interest rates, ranging between 14%-40% in Burundi reduce the scope of agri-input traders’ initiatives. This situation is partly due to large government borrowings from the banking system, which reduce banks’ incentives to decrease the cost of borrowing capital since their biggest borrower, the government, is essentially risk-free. This situation is compounded by high and unstable inflation rates, 16% in 2006, due to domestic electricity shortages, rising fuel costs, and increased food prices brought about by poor weather and, consequently, low harvests.

Finally, trade policies in Burundi remain inhibitive to agri-input trade despite the national governments’ initiatives to reduce trade barriers. Burundi has embarked on a series of structural reforms, which resulted in the elimination of most quantitative import restrictions and reduced

⁹ International Monetary Fund. August 2006. Burundi: Selected Issues and Statistical Appendix. IMF Country Report No. 06/307.

¹⁰ OANDA.2006. www.oanda.com

level and range of tariffs. However, the business climate for agri-input traders remains non-conducive to trade (Table 10). For instance, traders need to submit 14 types of documents to import goods into the country. It takes an average of 124 days in Burundi from the time contractual agreements are signed to when the goods are delivered.¹¹ Import costs are high and amount to \$3705 per container (or \$176/ton) in Burundi.

Table 10. Trading Across Borders (2006) in Burundi

Indicator	Burundi	OECD
Documents for export (number)	12	4.8
Documents for import (number)	14	5.9
Time for export (days)	80	10.5
Time for import (days)	124	12.2
Cost to export (US \$ per container)	3,625	811
Cost to import (US \$ per container)	3,705	88

Note: The container is a dry-cargo, 20-foot (21 tons), full container load.

Uncertain Policy Environment—The recent widespread recognition that growth and poverty reduction must begin with agricultural intensification and commercialization, as shown by national and international commitments to the New Partnership for African Development (NEPAD) CAADP’s targets, has fundamentally altered Burundi’s policy environment. Today, there are no longer questions pertaining to whether fertilizer, improved seeds, and CPPs are important for food security and economic growth. The most important question is, however, *how* to rapidly increase the use of agri-inputs. In Burundi, there are no clear policy guidelines on the role of the private sector and official attitude is generally negative. It is said that whatever little private sector participation there is, it is largely speculative and sometimes deals in sub-standard products. The GOB has seemingly withdrawn from marketing functions to focus on regulating and promoting the use of agri-inputs, as specified in the 1984 Structural Adjustment Policy. However, trade liberalization was seen as half-hearted since the private sector was and remains faced with competition from the government. The government is reluctant to withdraw completely from the sector by fear of being faced with fertilizer scarcity; since it believes that the private sector had shown little interest in taking over and investing in certain areas, such as

¹¹ World Bank. 2006. Doing Business Report.

warehousing. The GOB purchased 2,000 tons of fertilizer imports in 2005 to avoid artificial fertilizer shortages. These shortages are created by importers to increase the price and to help farmers in case of need. The GOB strategy with respect to fertilizer consists of holding a strategic stock and set up management committee at provincial and community levels to manage this stock (distribution/marketing). Thus, the policy framework is still inadequate and there are many gaps. There is an urgent need to finalize the policies MINAGRI has been working on. At the moment, there is a lot of donor support to the various government efforts, but much of it is still directed toward relief and rehabilitation. It is critical to begin redirecting some of this support toward building institutions, including private sector ones.

D.2. Market Development Issues

In addition to liberalization of input marketing policies development of competitive and well-functioning agri-input markets require adequate government attention to strengthening of the input supply chain, access to finance, market information, development of human capital, and effective legislative and regulatory mechanisms.

Lack of Access to Finance—The banking sectors in Burundi operate in an environment characterized by macroeconomic instability, weak legal systems, and dearth of credit information. World Bank Doing Business (2006) indicators, shown in Table 11, indicate that property registration requires the completion of five procedures, taking an average of 94 days and costing 17.9% of the property value. The Legal Rights Index (ranges from 0-10), with higher scores indicating that those laws are better designed to expand access to credit, lists 2 for Burundi. The Credit Information Index¹² (ranges from 0 to 6), with higher values indicating that more credit information is available from a public registry or private bureau, is 1 in Burundi. To enforce commercial contracts, banks would need to engage in 47 types of procedures, taking an average of 403 days and costing 32.5% of debt. The non-conducive environments within which lending institutions operate in these countries translate into a small and weak banking sector,

¹² The Credit Information Index measures the scope, access, and quality of credit information available through public registries or private bureaus.
World Bank. 2006. Doing Business Report.

ineffective financial systems, and small supply of agricultural credit. As a result, despite the increasing trend in investment activities, the involvement of the private sector in agricultural financing in Burundi remains marginal. As shown in Section C of the report, farmers and agri-input traders face enormous challenges in obtaining loans even with microfinance institutions (MFIs) because they are excluded from financial services in four ways: (i) access exclusion: through risk screening; (ii) condition exclusion: product design inappropriate for the needs of farmers and agri-input traders; (iii) price exclusion: financial products too costly; and (iv) self-exclusion: some farmers and traders are not applying in the belief that they would be refused.

Table 11. Access to Finance Indicators, 2006

Indicator	Burundi	OECD
Registering Property (2006)		
Procedures (number)	5	4.7
Time (days)	94	31.8
Cost (% of property value)	17.9	4.3
Getting Credit		
Legal Rights Index	2	6.3
Credit Information Index	1	5.0
Public registry coverage (% adults)	0.1	8.4
Private bureau coverage (% adults)	0	60.8
Enforcing Contracts (2006)		
Procedures (number)	47	22.2
Time (days)	403	351.2
Cost (% of debt)	32.5	11.2

Inadequate Infrastructure—Years of civil war have severely eroded the countries’ physical capital bases. The degradation of rural roads and the destruction of marketing infrastructures (warehouses; input shops) can be seen throughout the country. Bad road conditions result in delays in transit and high transport costs. The truck drivers are required to make some unauthorized expenses at cross-country checkpoints. The security concerns were a serious issue, but the situation has improved to a great extent in recent years.

Weak Input Supply Chain—The number of importers, wholesalers, and retailers involved in the input supply chain is very small. This considerably limits the availability and accessibility of inputs in rural areas because most farmers have to travel more than 30 km to purchase inputs.

Poor Technical Knowledge of Farmers and Farmers' Organizations—Farmers are inexperienced regarding the importance of agri-inputs, their safe and proper use, application rates, and the suitability to their cropping purposes. Farmers lack knowledge on improved seed production techniques. Farmers' associations lack technical knowledge (seed certification, growing conditions, plant diseases, and buying and safely applying quality inputs), business skills (basic accounting, bookkeeping, credit sources, contract negotiation, dispute settlements, planning, and marketing) and good governance (transparent policy-making and decision-making, openness to diversity of opinions, frequent communications, solid financial controls, good accounting system, and independent audits). As a result, these associations have difficulties adequately performing advocacy functions (i.e., lobbying) with the government, promotion, education, information collection and dissemination, industry analysis, and accessing credit to finance the purchase of inputs.

Inadequate Extension Services—In the absence of widespread government and private extension services, farmers do not have any source of information and knowledge on agricultural technologies including inputs. The lack of trained human resources is a serious constraint in the promotion of fertilizer use. MINAGRI is faced with financial constraints to conduct field promotional activities. After liberalization of fertilizer trade, the government appears to have reduced the investment in technology transfer and extension efforts have been brought to a low level. The number of government officials who provide extension, technical, and market information services is very small and most of them need training. This is another constraint, which has slowed down the transformation of subsistence agriculture to a commercial one.

Absence of Agro-Dealers Associations—The entrepreneurs dealing in importation, production, and marketing of inputs are working mostly as individuals and do not have well

organized trade associations in Burundi. Such a situation does not allow policy advocacy and promotion of ethical businesses and consumer welfare

Inadequate Knowledge and Business Skills of Agro-Dealers—Agri-input traders have weak business skills and they lack technical knowledge of agri-input use and crop production technologies. Their knowledge of the products sold, their advisory skills, understanding of bookkeeping/banking procedures, salesmanship, handling and storage methods, logistics planning, preparation of business plans, and credit management are grossly inadequate. The limited technical knowledge of agro-dealers is another obstacle in the provision of advisory services to farmers. Similarly, there are only a few public and private professionals to carry out the training in logistics planning, business management, and financial discipline, etc. There is therefore a serious shortage of critical human resources in the area of agribusiness development in Burundi.

Dearth of Research Infrastructure—Burundi lacks the human and physical resources to conduct research and produce enough basic seeds. ISABU is in charge of research and technology transfer activities. However, they lack financial and human resources because most infrastructures were destroyed during the war. Today, there are only two fertilizer testing labs in the country—one at ISABU, the other at the Ministry of Mining.

Weak Legal and Regulatory Systems—Legal systems are weak and rigid with lengthy statutorily based processes, which 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 incentives for agricultural entities to repay loans. The prevalence of such non-conducive environments within which lending institutions operate in these countries translates into small and weak banking sector, ineffective financial systems, and small supply of agricultural credit.

Inadequate Quality Control Mechanisms—Burundi is faced with a heavy supply of substandard agri-inputs, illegal border trade, and weak quality assurance systems. These constraints seriously hamper market development. To regulate production, distribution, and

marketing a fertilizer law has been drafted and submitted to the parliament for enactment in 2007. Today, the government is faced with problems to control, enforce, and strengthen the control capacity of its inspection agencies. Problems with registration and quality certificates from importers are quite common in the country. MINAGRI has a seed inspection service but lacks equipment in their laboratories to perform their functions and capacity to give seed certifications. A seed law exists but does not include the regulation of improved seeds; those issues could not be agreed upon. With respect to CPPs, many are imported illegally into the country. No quarantine infrastructures exist.

Lack of Market Information Systems—Farmers, agri-input traders, and the government lack critical access to reliable information on the quantity and price of agri-inputs in the country.

Absence of Post-Harvest Processing Facilities—Over 90% of food crops produced in Burundi are consumed after traditional processing methods such as pounding for cassava and milling wheat, maize, millet, and sorghum using stones. Such methods are often unsanitary, extremely time-consuming, physically demanding, and are not the best way to minimize post-harvest losses. The agro-processing sector is seriously underdeveloped and limited to export crops such as coffee and tea, oil production, and beverage factories. The post-harvest segment was hit hard during the civil war with most of the factory equipment destroyed.

III. Proposed Measures to Improve the Performance and Functioning of AIMS

There are vast scopes for improving agricultural productivity in Burundi. First, the country benefits from heavy rainfall 6-9 months of the year, allowing two production seasons annually. Second, a dense hydrographic network is in place, including the Tanganika Lake, lakes in the North of the country, and several rivers. Third, labor is abundant and young. Fourth, highly fertile land naturally exists in the regions of Imbo, Murmiwa, Bweru, Bugesera, Moso, and Kirimiro. These areas present opportunities for agricultural intensification.

The constraints prevailing in agri-input markets point to the fact that both the seed and fertilizer supply systems are in a subsistence development stage in Burundi. In this case, the

critical elements for market development are absent. Therefore there are disorganized markets, lack of skills in the public and private sector, and limited demand for improved seeds and fertilizer. This results in excessive transaction costs.

Taking these opportunities and constraints into account, several recommendations are formulated to address the macro policy and market development constraints preventing the establishment of effective agri-input markets in Burundi.

A. Creation of an Enabling Policy Environment

The government role should be one of strengthening the private sector's capacity to procure quality inputs at the lowest cost and to make these inputs available in rural areas at reasonable prices. The private sector, with substantial investments, is capable of importing sufficient quantities of fertilizer and selling it to rural areas. As such, it is recommended that the GOB redirects its efforts toward establishing an enabling policy environment for the private sector. This can be done through:

- Appropriate fiscal, monetary, and exchange rate policies.
- Stability in fiscal, monetary, and exchange rate policies.
- Well-established property rights.
- Skillful management of foreign aid flows by the Central Bank to stabilize the exchange rate.
- Control of inflation and money supply.
- Reduction in government borrowing from private banks.
- Strengthening the capacity of customs to reduce import procedures and improve processing of import requests.
- Engaging in dialogue with the private sector about the government's policies and involvement in agri-input markets.
- Rehabilitate rural roads, marketing infrastructure (storage, warehouses), and laboratories.

B. Improving Access to Finance

Previous sections have shown that access to credit is hindered by the unfavorable attitudes and behaviors of financial institutions toward agricultural entities, the rigidity of the lending mechanisms, and the weak capacity of agricultural entities to access credit. Given the

nature of the constraints related to financing agricultural activities faced by the agricultural sector, five actions are recommended:

1. Induce a positive change in the attitudes of the banking system and MFIs toward lending to agricultural entities.
2. Strengthen the capacity of existing producers' organizations to access credit.
3. Improve access to business finance.
4. Establish structured commodity finance facility.
5. Establish a credit information system.

In addition to these activities, greater focus should be on stimulating donor and government funding for the establishment of several lines of credit (LOC) and credit guarantee funds for farmers and agri-input traders in Burundi. The dearth of such initiatives is a serious limitation on the availability of financing for the agricultural sector in Burundi.

1. **Induce a Positive Change in the Attitudes of the Banking System and MFIs toward Lending to Agricultural Entities**—Banks are inherently reluctant to lend to farmers and agri-input dealers because they do not understand the business of agriculture. The lending mechanisms currently in place are not adapted to agricultural entities' needs. Therefore, the project must make it a priority to sensitize formal lending institutions with good outreach in rural areas, such as the MFIs, the BNDE, and commercial banks about:
 - a. The basics and nature of agricultural production.
 - b. The characteristics of agri-input businesses and farmers' associations.
 - c. The demand for agricultural credit.
 - d. The types of collateral available to agricultural entities and best practices to assess their credit worthiness.
 - e. Timely evaluation of the project submitted by farmers' associations and agri-input dealers and importers.
 - f. Timely evaluation of the collateral requirements.
 - g. Providing constructive feedback to agricultural entities so that they learn from the process.
 - h. Timely approval or rejection of loan application.

Sensitization programs involving bank staff should be developed to increase access of credit to farmers. This can be best done by training bank staff on the points underscored above and encouraging and organizing meetings and interactions between farmers and bank staff to remove the misunderstanding and mistrust between the two. Meetings between the bank staff and farmers and farmers' associations should be organized annually. Such activities will bring banks closer to agricultural entities and improve farmers' understanding of lending procedures.

2. **Strengthen the Capacity of Existing Producers' Organizations to Access Credit**—The main reason that prevents farmers from accessing credit to purchase agri-inputs is the lack of (a) knowledge of which financial institutions to approach, (b) knowledge of preparation of credit application documents, (c) knowledge in the management of credit, and (d) skills to profitably implement their farming activities. Small farmers who approach financial institutions in well-organized groups with a clear sense of their business goals are far more likely to be successful in accessing financial resources. It is therefore recommended that the project strengthen the capacity of the existing farmers' organizations. The project should, therefore, not only support agricultural organizations and/or their members in applying for credits to finance the acquisition of agri-inputs but also conduct demonstration activities to increase farmers' technical know-how about the usage of modern inputs. This should include training and guidance in the following areas:

- Explanation of the work of banks, loan application procedures, and reasons for acceptance or denial of loans.
- Preparation of profitable projects that are to be submitted to banks and MFIs (writing, editing).
- Development of business plans.
- Liaison between organizations and banks (assistance with contacts and meetings with bank staff) before and after credit requests are submitted to the bank.
- Management of credit and repayment to reduce repayment risks and sustain access to credit.

The project's strategy should consist of (a) identification of farmers' training needs; (b) preparation of training materials; (c) training; (d) follow-up on credit management and (f) establishment of farmers' demonstration plots to showcase the benefits of modern inputs.

3. **Improve Access to Business Finance**—Agri-input trade is capital intensive, therefore importers and dealers require access to capital through the commercial banking system in order to be competitive. This is needed for working capital needs, to invest in new farm technology, to optimize turnover, and reduce transaction costs. The CATALIST project can facilitate access to credit by training:

- Staff of commercial banks and Peoples Bank on the technical aspects of agri-input business and lending mechanisms that are available in other countries for agri-input traders.
- Private traders in business organization and management; investment analysis and feasibility studies; writing project proposals; loan applications; and lending mechanisms to farmers' associations and farmers.

Any trained dealer becomes knowledgeable about the technical and commercial aspects of the input business. Therefore, she/he will be able to use guarantee from this fund to invest in retail or wholesale business. This should help overcome the skepticism of local banks and government about lending to the agricultural sector.

4. **Establish SCFF**—Structured Commodity Finance is a sophisticated commodity-based financing mechanism, specifically designed for commodity producers in developing countries. This approach has been successfully practiced for many years in Asia and several African countries in the form of the “warrantage credit facility” or the “warehouse receipt facility.” Unlike traditional financing mechanisms that look to the flow of funds and the sources of money, the SCFF looks to the flow of goods. Farmers stock their commodities at harvest with a local entrepreneur in a safe warehouse to make deposits in “commodity accounts,” accounts expressed in kilograms of product. They can pledge the respective warehouse receipts to obtain cash or buy inputs on credit. Together, they sell the produce later during the year when crop prices are high. This allows farmers greater control over their marketing decisions because they are no longer forced to sell directly after harvest at the prevailing low prices to meet cash flow needs. The system also solves farmers' liquidity

constraints and allows them to raise cash to buy farm inputs, including fertilizers and improved seeds.

5. **Establish a Credit Information System**—It is recommended that a credit information system be established to address the issues of high costs of accessing information on borrowers. Such a mechanism would be built within the Central Bank to help borrowers establish a credit history or “reputation collateral” while reducing the time and cost that lenders spend to obtain such information. This would considerably ease access to credit for farmers and agri-input traders by giving them an incentive to repay.

C. Development of Input Markets and Local Capacity in Agribusiness

The development of human and physical capital in Burundi will result in not only increased availability of agri-inputs in rural areas but also improved knowledge of farmers on the proper use of agri-inputs, which is crucial for agricultural intensification to occur. To that end, the following measures are recommended:

1. **Creation of Trade Associations**—The formation of fertilizer suppliers’ associations at national and provincial levels should be initiated as soon as possible. The CATALIST project may also facilitate the training and networking of associations with regional, national, and provincial stakeholders. Association members may be trained and encouraged to professionalize the input trade, bring ethics in business, and undertake policy advocacy with government.
2. **Registration of Operators of Input Supply Chain**—The current system of fertilizer importation, handling, storage, packaging, and reporting of stock and sale of inputs is highly unorganized. To get reliable information about the operators of the input supply chain (importers and wholesale and retail dealers), it is recommended that MINAGRI may issue a directive for registration by all enterprises as agro-dealers at the provincial and national levels, depending on their place of business. The registration may be a simple documentation with a nominal fee, giving a complete/verifiable address of business, products sold, and name of contact person(s), etc. This should be applicable to all categories of the input supply chain, i.e., private sector, parastatals, and cooperatives.
3. **Training of Agro-Dealers and Extension Workers**—Agro-dealers are the first contact of farmers and play an important role in promoting use of yield-enhancing inputs,

including soil amendments and anti-erosion barriers. The extension workers need to upgrade their skills in commercial/sustainable farming systems, input use technologies, and crop marketing. Training of agro-dealers and extension workers should begin in an organized manner. A need-based professional training curriculum may be developed. CATALIST and other agricultural development projects should organize the training workshops in collaboration with MINAGRI. A collaborative approach by MINAGRI extension services and agro-dealers will produce better and quicker results in the promotion of input use. Cooperative sales personnel dealing in inputs should be treated as agro-dealers and included in the training programs.

4. **Revival and Upgrading of Extension Services**—The current system of technology transfer is grossly inadequate. To accelerate high input, high output and sustainable/commercial agriculture, government extension services, and farm advisory services by trained agro-dealers should be started in collaboration with CATALIST and other donor-funded projects. The cost of extension service may be covered from the national budget. Mass media, particularly radio and press, may be used to promote the use of fertilizer and other inputs. Private dealers should be urged to provide technical information to customer farmers.

D. Establishment of a Market Information System

Currently, there are no adequate market information systems established in Burundi. There is an urgent need to provide transparency in Rwanda and Burundi national markets. Farmers, traders, and the government should have constant access to reliable information on products, prices, stocks, and quantities in different locations. Additional resources should be allocated for collecting and disseminating, through radio, weekly bulletins, short message service (SMS), and the Internet, to all segments of the market. This data should also include information from neighboring countries. This could be done within an industry association so that as the private sector takes root, they can own the service as a means to promote their business.

E. Strengthening the Regulatory Capacity

It is important for an adequate regulatory mechanism to be in place and to be properly enforced to deter the sale of sub-standard products in the markets and to provide confidence to

farmers that the cost they incur will generate the expected benefits. The following recommendations are proposed to protect farmers from fraudulent products (adulterated products, short weights, nutrient deficiency):

1. ***Seed Laws and Regulations:*** There is urgent need to finalize the policies MINAGRI has been working on and to update the relevant laws. Similarly, the missing laws, like plant variety protection, should be enacted in accordance with the EA harmonized guidelines. Mechanisms to effectively implement these laws should be put in place. There is a need to clarify the government's policy toward the private sector and encourage their participation in the input industry. The public sector should provide a business-enabling environment for the private sector, beginning with a change of attitude followed by suitable policies and regulations.
2. ***Seed Quality Control and Certification:*** There is urgent need to rehabilitate the seed certification and quality control infrastructure, including equipping the seed laboratory and recruiting and training staff. At the same time, the GOB has to establish proper procedures acceptable in the region by setting up a variety release committee, which should then embark on the registration of varieties in the market. There is also a need to strengthen the phytosanitary services and harmonize them with others in the EA region.
3. ***Variety Development and Early Generation Seed Production:*** Further support is needed to strengthen ISABU for variety development and the production of BrS and PBS. In the policy, there should be a mechanism for attracting private materials from the region by supporting national variety performance trials and introducing those varieties found to be suitable. The introduction of hybrid seeds should be particularly encouraged.

F. Improving Access to Fertilizer

To achieve the agricultural growth targets established by the GOB, the price of fertilizer must be reduced for farmers to be able to afford the costs of intensification. There is ample scope for decreases in fertilizer cost in Burundi through reductions in transportation and warehousing costs if the following strategies are well implemented:

1. **Joint procurement**—The concept of joint procurement at national or regional level, which entails taking advantage of economies of scale in procurement at world market prices, has been under consideration by some regional organizations like SADC and COMESA. Such a

system can be more suitable to the east African countries like Rwanda, Burundi, and DRC who buy in small lots of less than a shipload (10 to 15,000 tons). The current demand of three countries can be consolidated into two or three shiploads and transported to a strategically located seaport (Dar es Salaam in Tanzania or Nairobi in Kenya). The discussions with some importers in the above two countries showed an encouraging response to such an arrangement. Some importers even showed interest in forming a regional association of fertilizer importers to implement this arrangement. It is estimated that timely procurement may lead to 5% to 10% savings in the f.o.b. price. In addition, it will reduce the delivery period for small lots from 4 months to about 2 months. Similarly this arrangement may offer a better use for the long-term funds committed to fertilizer business.

2. **Multi-Transport System**—The adoption of a multi-transport system as shown below is considered to be economical for the transportation of fertilizers from seaports to destinations in Rwanda, Burundi, and Congo. The fertilizer can be transported from Dar es Salaam by rail to Kampala and/or Kasese via Malaba. From Kampala and Kasese, goods can be moved by road to north of Congo and other destinations. From Dar es Salaam, cargo can be moved by rail to Isaka dry port and then moved by road to Rwanda. Goods can also be moved from Isaka by Mwanza port on Lake Victoria using a boat. There is a possibility of moving fertilizers from Dar es Salaam to Kasama and Lusaka (Zambia) by TAZARA rail system. Recently, Dar es Salaam port has attracted the attention of importers because the incidences of bribery and delays have been reduced considerably under the new management in Dar es Salaam. For ordering small consignments from South Africa and Mauritius, Dar es Salaam is the closest port and maritime and shipping costs are reduced. Although there is an axle-weight limitation in east African countries, Tanzania transporters still manage to load their lorries more heavily than other countries in the region, thereby, offering a lower freight cost. It is estimated that the road transport costs can result in significant saving. A rough calculation is shown in Table 13.

Table 13. Estimated Saving in Transport Costs Through Multi-Transport System

From	To	Clearing and Transport Cost		Saving
		Road	Multi-Transport System	
		(US \$/ton)		(%)
Mombassa	Kampala	160	112	30
Mombassa	Kigali	240	172	18.7
Mombassa	Bujumbura	320	260	18.7
Mombassa	Toma	320	232	33.6
Mombassa	Bukavu	360	260	33.6
Dar es Salaam Railway	Kampala (Mwanza)	100	100	0
Dar es Salaam	Kigali	212	138	35
Dar es Salaam	Bujumbura	312	138	65.8
Dar es Salaam	Goma	272	198	37.3
Dar es Salaam	Bukavu	300	238	20.7

The above information, however, is based on the unconfirmed figures provided by Jasmine International Clearing, and Forwarding Agent—Kigali, Rwanda and some other importers. The feasibility of transport mix and actual freight structure need to be studied and evaluated.

- 3. Logistics Planning (National and Regional Levels)**—The existing system of fertilizer warehousing and delivery is generally unplanned and unsystematic. In Rwanda only one dry port, Kigali, is used for inward clearance and delivery of cargo. 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 Kigali for all goods imported to Rwanda. Such a situation results in overuse and choking of facilities, delays in delivery of fertilizers, and additional cost of fertilizer importation. In the case of fertilizers, the customs administration can allow the clearing agent to offload the cargo in a private warehouse at specified locations under the supervision of customs officials appointed for that purpose. The Bureau of Standards also is invited to inspect the cargo and allow the clearing agent to operate without an under seal system. This special facility was created to make the trade more efficient by reducing some costs like weight-bridge, documentation, and storage and handling, thus making some saving in the cost of fertilizer delivery. This system helps to provide straight and quick delivery to farmers and stores the products in main distribution centers. The following towns in Rwanda can be served under the direct home delivery scheme:

- Butare for the southern province.
- Ruhengeri or Pfunda Tea works in Gisenyi for the northern province.
- Kibuye and Cyangugu for the western province.
- Kayonza for the eastern province.

In case fertilizer is procured and transported in larger quantities, it will need storage at strategic locations before it is moved to consumption areas in small lots. There is a big warehouse (capacity could not be ascertained) at Isaka in Tanzania. The warehouse at Isaka can serve as a regional buffer stock for the incoming cargo and for further movement to destinations in Rwanda, Burundi, and DRC. This will reduce the pressure on rail and road movement and help in reducing the costs of transportation. The above calculations are estimated and need to be confirmed before arriving at a final amount of saving in the proposed strategy of joint procurement, transportation, warehousing, and delivery.

In addition to the measures proposed above to reduce the cost of fertilizer, it is also recommended to:

1. **Promote Small Packs of Fertilizer**—There is a good demand of small fertilizer packs in Rwanda and Burundi. The existing system of packaging 1-kg packs is faulty and affects the product quality. There is a need to promote small packs of 2, 5, and 10 kg using proper packing material. Proper labeling and printing of some promotional messages in the local language on the packs will help in improving the product quality and knowledge of fertilizers. It may be necessary to allow the private dealers to add the cost of small packs in the retail price.
2. **Revise Fertilizer Recommendations**—The existing recommendations, particularly for fertilizer types, seed varieties, and their time and methods of application appear to be outdated. Linkage of nutrient removal by cultivated crops, soil nutrient balance, nutrients supplied by a fertilizer product, and time of application should be taken into consideration when making revised recommendations. MINAGRI may initiate the revision/upgrading of fertilizer recommendations. CATALIST and ISAR may facilitate the process.
3. **Integrate Multi-Country Markets**—Reducing transportation and warehousing costs of fertilizer at the regional level looks promising. In collaboration with COMESA, SADC, and Governments of Burundi, DRC, Tanzania, Kenya, and Uganda, efforts should be made to

streamline the entire logistical system. The CATALIST project may consider fielding a feasibility study for the development of a regional fertilizer market for Rwanda, Burundi and Congo. There is a possibility of cost saving of freight and warehousing by (a) collective procurement at national and regional levels, (b) adoption of rail and road transport, and (c) warehousing the cargo at strategic regional and national locations. Regional logistics planning will reduce the rush on road/rail transport system and facilitate planned road movement to destinations in Burundi, Rwanda, and Congo

G. Increasing Seed Supply

Both farmers and research institutions acknowledge the shortage of quality seeds on Rwanda and Burundi markets. Therefore, correct implementation of the following measures will help address seasonal seed shortages:

1. ***Variety development and BrS production:*** Strengthen research and variety development and quicken release of new varieties. One way to do this would be to liaise with seed companies in the region and encourage them to introduce their varieties in Burundi and work with ISABU to conduct national performance trials in line with the harmonized system. ISABU requires increased funding for its core research programs and to rehabilitate its laboratories. Production of BrS also needs to increase to meet industry requirements.
2. ***Commercial seed production and marketing:*** There is not enough certified seed to meet national requirements and the majority of farmers depend on informal sources of seed. Regional and multinational seed companies should be encouraged to market their improved seeds in the country. Support should be given to these companies in market development through demonstration of these varieties. The cooperative movement is a suitable starting point for such demonstrations, and could eventually develop into a strong commercial distribution network. There is also need for some in-depth assessment of seed demand to help companies make their marketing plans. Another form of support to private companies to encourage them to start seed production in-country would be to allocate them some of the traditional “seed centers” for that purpose. A suitable arrangement could be worked out with GOB on how best to utilize these centers. The private companies involved in micropropagation should be encouraged and supported.

3. ***Training and human capacity development:*** Training and human capacity development will be vital in the entire seed chain. This could include visits to seed industries in the region where considerable experience in the development of private sector seed business exists.
4. ***Coordination of NGOs:*** There are many NGOs operating in the country in a range of fields. However, there is no coordination or even monitoring of their activities even though some may be inferior or undesirable. Specifically in the seed sub-sector, the way seed multiplication and distribution are done could lead to poor quality seed being supplied to farmers. There is also the problem of hindering private sector initiatives in the seed business and creation of a dependency syndrome among farmers. Therefore, MINAGRI should put in place a mechanism for the coordination and monitoring of NGOs. There should also be deliberate efforts to move from relief toward reconstruction by the NGOs and relief agencies. FAO is moving in the right direction, but there is a need to bring in the private sector to build sustainability in the system.

Most of the shortcomings in the industry are due to the withdrawal of donor funding following years of civil war. Institutions are poorly facilitated and some of the infrastructures were vandalized. In such a situation, it has not been possible for the private sector to play any significant role. Besides, there are no clear policy guidelines on the role of the private sector and official attitude is generally negative. Private sector participation, however small, is largely speculative and sometimes deals in sub-standard products. Currently, there is much donor support to the various government efforts, but much of it is still directed toward relief and rehabilitation. It is critical to begin redirecting some of this support toward building institutions, including private sector ones. In one seminar of agricultural stakeholders, supported by CTB and held in April 2006, issues affecting the entire seed chain were discussed and recommendations made. It is not clear which of the recommendations have been implemented.

IV. Specific Recommendations for the CATALIST Project

Specific recommendations were formulated for the CATALIST project. The proposed recommendations are framed and grounded in the Competitive Agricultural Systems Enterprises

(CASE) approach. This approach was developed by IFDC to promote agricultural intensification and to strengthen integration of farmers and local entrepreneurs in attractive commodity value chains through agribusiness cluster formation. It is based on three pillars: (1) agribusiness cluster formation, (2) commodity value chain development, and (3) facilitation of enabling institutional environments.

Upon the identification and selection of specific commodities, it is recommended that the CATALIST project focus on the following market development activities (some in the defined project areas and others on a national/regional scale), ranked in order of importance:

1. **Establish a Market Information System:** It is recommended that the CATALIST project partners with the national statistics division and West Africa projects (Market Information Systems and Traders' Organizations in West Africa [MISTOWA] and Promoting Agricultural Development Through the Creation of a Regional Inputs Market in West Africa Project [MIR]) help establish a market information system, either in Burundi or regionally to include Rwanda and Eastern DRC.
2. **Create and/or Strengthen Producers Associations:** It is recommended that the CATALIST project partners with CAPAD, MINAGRI's extension department, PRDMR, banks' staff, and successful farmers and traders to improve the farmers' knowledge and choice in products. *First*, farmers' field schools (FFS), field days in established demonstration sites, market day demonstrations, and technical promotion material (posters, radio announcements) should be established to showcase the benefits of using modern inputs compared to traditional practices. These activities will stimulate the demand for fertilizer, improved seeds, and crop protection products, which is an essential step toward improving the use of modern inputs. *Second*, it is recommended that the CATALIST project focuses on establishing new associations and strengthening existing ones. Specific attention should be given to the creation and strengthening of rice, potato, wheat, and maize producers' associations, since intensification of these staples is more likely to lead to food security. In this exercise, collaboration with the Food Crops Production Support Project is highly recommended to benefit from their knowledge base and channel resources in the same direction. The CATALIST project should ensure that the associations are capable of delivering cross-

cutting services, are self-relying and sustainable by teaching them how to establish an office, raise revenue, establish collaborative relationships with governmental and non-governmental agencies. The project should also transfer technical knowledge (seed certification, growing conditions, plant diseases, buying and safely applying quality inputs) and business skills (basic accounting, bookkeeping, credit sources, contract negotiation, dispute settlements, planning, and marketing) to these associations. The project should also set up mechanisms for commercial farmers to offer, on a formal basis, apprenticeships to help small farmers acquire practical skills. The training programs should especially focus on providing farmers with the technical skills needed for agricultural intensification and business skills needed to access credit.

3. **Develop Input Supply Chain:** It is recommended that the CATALIST project partner with MINAGRI, the Chamber of Commerce, and agri-input enterprises (APPRO Services, SOCOMIPP, TEMBO, Francis Gashaka, Ruta Company) to facilitate strengthening of the unorganized input supply chain in Burundi. Immediate attention should be paid to the formation of an agro-input dealers' association of Burundi. The project should form strategic partnerships with successful agro-dealers within the region. These partnerships will develop networks and strengthen the capacity of agro enterprises to conduct competitive business and provide quality services and inputs at competitive prices to farmers. Training activities should focus on improving traders' knowledge of the products they wish to market, their advisory skills, their understanding of banking procedures, input procurement, and demand forecasting and help them develop business plans, record keeping, and promotion materials.
4. **Expand Market Linkages:** It is recommended that the CATALIST project partner with regional institutions, farmers, and traders' associations to establish linkages between stakeholders within the region. This can be done through regional training workshops bringing farmers and dealers together to broaden their knowledge and the opportunities available to them. The training workshops will provide farmers, dealers, and agribusiness companies with an opportunity to discuss possibilities of contracting schemes. Specific attention will be given to the development of vertical coordination between farmers and agribusiness companies and vertical coordination among input distribution, output marketing, and credit functions.

5. **Establish Voucher Schemes:** It is recommended that the project take advantage of the synergies developed between its various components, Social and Environmental Stability through Agricultural Intensification in Central Africa's Great Lakes Region (SESAI) and HelpAge, to build terraces and roads using voucher schemes in project areas. In these schemes, farmers in project areas will build progressive terraces and roads in exchange for vouchers redeemable for seed and fertilizer. HelpAge would work with district planning authorities to identify roads in project areas that require repair or upgrading. Once these roads are identified, heads of villages should select beneficiaries. The project can then identify agricultural dealers in each area to act as distribution points for inputs. A precondition of participation can be membership in the Rwanda Private Sector Federation. Once selected, dealers can be trained in the voucher redemption process, business management methods, inputs storage and usage, and be required to open a bank account to facilitate the payment of service commissions. Dealers are also expected to play a role in transferring messages on correct inputs usage and should be trained in demonstration plot management. They will receive leaflets depicting correct usage techniques for distribution to beneficiaries when they redeem their vouchers (see dealer development component in action plan matrices). Upon completion of roads and progressive terraces, each beneficiary would be issued a voucher entitling them to 50 kg of urea and 10 kg hybrid maize/potato seeds. The voucher should be designed so that the seed portion can be redeemed before the fertilizer portion to allow timely planting of seeds, if necessary. Once vouchers are exchanged for inputs, dealers can return to IFDC or HelpAge for payment.
6. **Initiate Policy Dialogues:** It is recommended that the CATALIST project work with MINAGRI to organize training and policy workshops and policy dialogue forums at village, state, national, and international levels. This will bring MINAGRI, farmers, dealers, importers, extension agents, regulatory agencies, and agribusiness companies together and improve interactions between them. It will also give the public sector, private sectors, banks and donor community the opportunity to discuss key policy issues. In addition, it will form closer linkages between the public/private sectors, allow the exchange of information, improve cooperation, decrease risks and transaction costs, and thereby create an enabling environment for private sector participation in input markets.

7. **Develop Stable and Reliable Crop Output Markets:** The CATALIST project should partner with key agribusiness firms in the country and/or region to provide local entrepreneurs, especially women cooperatives and farmer associations, with specialized training in the operation and installation of agro-processing facilities. Training will target the establishment of storage facilities, warehouse collaterals, and small processing facilities. It is recommended that the CATALIST project establishes a Structured Commodity Finance Facility in each province of Burundi in partnership with existing microfinance institutions (COOPEC, COSPEC, and UCODE). Investments in such facilities will help farmers bargain for good prices for their outputs and result in higher prices at the farm-gate.
8. **Establish a Credit Information System:** It is recommended that the CATALIST project partner with the Central Bank (BCB), the BNDE, and the Network of Microfinance Institutions (RIM) to establish a credit information system within the bank. This will help borrowers establish a credit history or “reputation collateral” while reducing the time and costs lenders spend to obtain such information. This would involve the establishment of credit-scoring standards and the collection and appraisal of credit information. The CATALIST project can help initiate the process by organizing forums to discuss the feasibility of establishing this system, identifying the key institutions and actors, and drafting a work plan for its realization.

V. Implementation Arrangements

The action plan matrices, presented in Tables 14-18, were developed to complement the proposed measures in addressing the policy and market development constraints in Burundi. The first matrix presents broad action lines on policy and market development issues and the remaining matrices provide input-specific recommendations.

The proposed measures would necessitate the initiation of a 5-year program to begin the process of creating efficient and well-functioning agri-input markets. It is therefore advised that the CATALIST project work with the GOB to channel their resources in the same direction and

maximize the impact of their activities on poverty and pro-poor growth. Government commitment is critical for the successful implementation of these activities.

To implement the measures proposed in action plan matrices, it is recommended that a task force, consisting of representatives from MINAGRI, the CATALIST project, donors, the private sector, and farmer associations, be created in the country. This task force will be responsible for aligning donor funding behind the proposed measures. This would ensure that all resources are channeled in the same direction, create accountability, and guarantee that the implemented activities have measurable impacts on the livelihoods of the rural populations.

Table 15. Fertilizer Market Development Action Plan Matrix for Burundi

Issues/Constraints	Actions Recommended
<p>1. Policy Issues</p> <ul style="list-style-type: none"> • The Structural Adjustment policy adopted by the GOB in 1986, entrusting the private sector with the responsibility of fertilizer importation and supply to commodity companies, cooperatives, and producer associations, through tenders at a fixed price, allowing 15% profit margin after meeting the costs of importation and inland transportation. There is no tax on fertilizers and the responsibility of extension services is with the government and the commodity companies. There is a fertilizer revolving fund managed by BNDE, through which the cost of importation is funded by the government. • Although the above policy has worked satisfactorily, the performance of the private sector is below the expectations of GOB and the farmers. The following constraints hamper the growth of private sector investment in the fertilizer business: <ul style="list-style-type: none"> a. The availability of funds is limited and the private sector does not feel secure to invest, keeping the importation restricted to 12-14,000 tons per year. b. The government funding is linked to foreign aid, creating doubts about the continuation and expansion of the revolving fund and creating uncertainty for long-term business planning by the private sector. c. The taxes on fertilizer are exonerated (which are otherwise quite high) in the form of subsidy by MINAGRI. The low/less than 1% budgetary allocation to agriculture creates doubts about the continuation of the subsidy and thereby restricts the business expansion by private sector. d. The GOB is considering amending the fertilizer policy and may introduce some controls, more closely monitor fertilizer importation, and reverse some of the provisions of the policy. 	<ul style="list-style-type: none"> • Policy inconsistency, weak economic environment, and inadequate financial support by the public and commercial banking sector are the major bottlenecks in investment by private sector. • Taking into consideration the importance of enhanced productivity in food security and social stability, the GOB must do its best to win confidence and offer incentives for investment in agric input markets. • The proposed policy changes should be discussed with the private sector to remove the bottlenecks rather than changing the roles. Increased funding for fertilizer procurement, assurance on tax relief for a fixed period, and additional efforts to promote the use of fertilizer and other inputs may encourage private sector investment.
<p>2. Logistics, Planning, and Infrastructure</p> <ul style="list-style-type: none"> • Presently, fertilizer transported by road from ports located at far away places in foreign countries is cleared by customs only at one location in Bujumbura and the warehousing facility in rural markets is not used for advance stocking. The agro-retailers and farmers are required to travel 	<ul style="list-style-type: none"> • The GOB should liaise with COMESA/SADC to facilitate collective/regional procurement, transportation and delivery of fertilizer by Rwanda, Burundi, and DRC. • A feasibility study for collective procurement, transportation, storage, and delivery by Rwanda, Burundi, and Congo may be conducted to determine

Issues/Constraints	Actions Recommended
<p>long distances and re-transport fertilizers, incurring additional costs. The system of transportation and delivery is cumbersome, expensive, and makes the business less attractive to medium and small business enterprises.</p>	<p>economic saving and actions involved in the implementation of the proposed system. CATALIST should consider funding the feasibility study and networking with COMESA</p> <ul style="list-style-type: none"> • The GOB should make direct delivery more practical and attractive in consultation with related stakeholders. There should be at least one delivery point in each potential prefecture. • The inventory of existing storage facilities may be conducted to develop a long-term strategy for utilization of available field storage space and the need for an additional storage facility in future years. • The staff of importers, and agro-dealers involved in handling and storage of fertilizer, seeds, and CPPs should be trained to affect economy and safety in these operations.
<p>3. Agro-Dealers Network (Human Capital)</p> <ul style="list-style-type: none"> • There are a few agro-retailers in rural areas, due to lack of credit and other business facilities. • The business skills and knowledge of input use technologies of dealers is limited. • Fertilizer importers have limited knowledge of logistics, management, and product specifications. • Agro-dealers work as individual business enterprises and have no trade association. • Agro-dealers, due to limited knowledge in agri-technologies, are unable to offer fertilizer advisory services to customer farmers. 	<ul style="list-style-type: none"> • Agro-dealers, from cooperatives and private sector, should be trained to conduct input business as small and medium enterprises (SMEs). • Retail dealers should be linked with suppliers through business networking and with extension staff for farm technologies. • Agro-dealers should be encouraged to form trade associations. • Agro-dealers should be provided the skills of business planning and credit management/payment.
<p>4. Financial Constraints/High Rate of Interest</p> <ul style="list-style-type: none"> • Agro-dealers have a limited access to credit and are required to pay a higher rate of interest compared to cooperatives. Commercial banks ask for collateral and have stringent terms and conditions for loans on agribusiness. • Inter-business private credit among different links of input supply chain is limited. 	<ul style="list-style-type: none"> • The government, national Central Banks, and commercial banks should review the availability, rate of interest, and terms of loan to agro-dealers, treating them as small and medium agribusiness enterprises. They should support and improve agricultural productivity and rural economy. • The private business credit by wholesalers and retailers should be encouraged through training in credit management and development of business linkages by CATALIST in collaboration with BNDE and commercial banks.
<p>5. Inadequate Access to Market Information</p> <ul style="list-style-type: none"> • The access to reliable and up-to-date market information is grossly inadequate and is a major obstacle in the development of confidence in 	<ul style="list-style-type: none"> • The existing system of market information is weak and inadequate. There is a need to develop an efficient and reliable system for the collection and dissemination of information prices and availability of inputs in the national, regional, and international markets. CATALIST, should facilitate

Issues/Constraints	Actions Recommended
agribusiness and government policies of agricultural development.	MIS at regional basis
<p>6. Strengthening of Quality Assurance by ISABU</p> <ul style="list-style-type: none"> The existing system of quality inspection is inadequate, is not supported by legal provisions for punishment of offenders, does not cover inspections at retail and wholesale sale points, and the fee charged by ISABU for fertilizer testing is high. 	<ul style="list-style-type: none"> The fertilizer regulatory mechanism, including the legislation and methods of fertilizer sampling and analysis, should be upgraded. ISABU should be strengthened to draw samples at all borders and urban/rural markets, staff involved in fertilizer sampling should be trained and capacity of fertilizer testing laboratories should be upgraded. The punishment for the supply of sub-standard fertilizers should be severe with high fines and cancellation of licenses to deter the unscrupulous traders.
<p>7. Small Packs of Fertilizer, Seeds, and CPPs</p> <ul style="list-style-type: none"> A majority of farmers are unable to buy 50-kg bags of fertilizer and large-size packs of seeds and CPPs. The current method of breaking of 50-kg bags to repack in small packets by untrained manual labor is subject to quality deterioration and short weight, etc. 	<ul style="list-style-type: none"> MINAGRI, CATALIST, and fertilizer trade associations (when formed) should work together to develop a strategy for small packs. The agro-dealers should learn to pack in small packets and be allowed to charge additional cost of packaging.
<p>8. Extension Services</p> <ul style="list-style-type: none"> The government extension services are currently the only source of technology transfer to farmers. The number of extension workers is inadequate and they need to update their technical messages. This has slowed down the process of commercialization of subsistence farming. 	<ul style="list-style-type: none"> MINAGRI should consider expansion and update of commercialized extension services. In addition to well-trained extension workers, promotion of commercial farming through the use of mass media, particularly radio, may be given priority. The agro-dealers should be trained to provide farm advisory services to farmers.

Table 16. Burundi AIMS Assessment: Seed Action Plan Matrix.

Issues/Constraints	Actions Recommended	Responsibility	Remarks
<i>Policy, laws, and regulations:</i> Many gaps and missing bits.	<ul style="list-style-type: none"> Finalize policy and updating of seed laws in line with EA harmonization. Clarify policy toward privatization. 	<ul style="list-style-type: none"> CATALIST and MINAGRI to coordinate and expedite process. 	<ul style="list-style-type: none"> Immediate.
<i>Quality control and certification:</i> System almost non-existent.	<ul style="list-style-type: none"> Rehabilitate seed QC infrastructure in terms of equipment and personnel. The same applies to phytosanitary services. 	<ul style="list-style-type: none"> CATALIST and MINAGRI. 	<ul style="list-style-type: none"> Immediate.
<i>Variety development and early generation seed production:</i> Variety development and production of BrS and PBS is weak.	<ul style="list-style-type: none"> Strengthen ISABU capacity for variety development and seed production. Attract and support variety introductions from regional seed companies. 	<ul style="list-style-type: none"> CATALIST to fund identified ISABU activities; work with ISABU to introduce, trial, and release companies' varieties. ISABU to conduct NVPTs. 	<ul style="list-style-type: none"> Could be done concurrently with Rwanda.
<i>Commercial seed production and marketing:</i> Virtually no formal seed production and no distribution system.	<ul style="list-style-type: none"> Support marketing of CS from private seed companies – market development, demonstrations, and linkages with cooperatives and NGOs. Make an assessment of seed demand and supply. Train selected co-ops in formal seed production. Support development of private seed cos. Develop the input distribution network. Encourage NGOs and relief agencies to distribute certified seed. 	<ul style="list-style-type: none"> CATALIST to fund and give TA for these activities. Enlist support of some donor agencies and NGOS, e.g. CTB, FAO, etc. MINAGRI, CATALIST, and development partners actively encourage growth of local seed companies and entry of regional companies. 	<ul style="list-style-type: none"> Harmonize with Rwanda.
<i>Coordination of NGOs:</i> Great work done by NGOs and relief agencies but no coordination or monitoring.	<ul style="list-style-type: none"> Bring agencies together and promote coordination. Put resources into rehabilitating systems. Build sustainability by involving private sector in on-going relief and rehabilitation work. 	<ul style="list-style-type: none"> CATALIST and MINAGRI to coordinate these activities. MINAGRI set rules for NGO monitoring. 	<ul style="list-style-type: none"> Immediate start.

Table 17. Action Plan Matrix for Improving Access to Credit

Issues/Constraints	Actions Recommended	Responsibility
<p>1. Non-Conducive Environment for Lending Institutions: macroeconomic instability, weak legal systems, and dearth of credit information.</p> <ul style="list-style-type: none"> • Inflation rates are high and unstable. • Legal systems are rigid with lengthy statutorily based processes. • Heavy institutional constraints such as administrative procedures. • Uncertainty with respect to the predictability, speed, and fair enforcement of contracts. • High costs of contract enforcement. • High costs to acquire and process information about the credit worthiness of agricultural enterprises and the probability of their investments being successful. 	<ul style="list-style-type: none"> • Establish a credit information system (CIS) within the Central Banks to provide adequate and timely information on borrowers at a reasonable price. • Ensure macroeconomic stability through appropriate monetary, fiscal, and exchange rate policies. • Strengthen the physical (train lawyers in settlement of financial disputes) and financial resources of the judiciary system. • Institute an effective enforcement procedure and specify scope for corrective measures. • Protect creditors' rights and improve loan recovery through an effective legal system. 	<p>CATALIST project, Ministry of Finance, Ministry of Justice, and Central Banks</p>
<p>2. Small Stock of Bank Credit to the Agricultural Sector</p> <ul style="list-style-type: none"> • Banks do not understand the business of agriculture. • Limited knowledge and training of banks staff on the agricultural sector. • Lack of trustworthy information system on farmers and agri-input traders. • Uncertainty from both lenders and borrowers' sides about expected loan repayment because agricultural output is subject to the vagaries of the weather and most farmers are subsistence farmers. • Information asymmetries make the 	<ul style="list-style-type: none"> • Help banks develop new products well adapted to meet the financial needs of farmers and agri-input traders. • Induce a positive change in the attitudes of the banking system and MFIs toward lending to agricultural entities by organizing meetings and interactions between farmers and bank staff to remove misunderstanding and mistrust between the two and training bank staff on the following points: <ul style="list-style-type: none"> - The basics and nature of agricultural production. - The characteristics of agri-input businesses and farmers' associations. - The nature of the demand for agricultural credit. - The types of collateral available to agricultural entities and best practices to assess their credit worthiness. - Timely evaluation of the project submitted by farmers' associations and agri-input dealers and importers. 	<p>CATALIST project, BNDE, MFI, commercial banks, farmers' organizations, private sector</p>

Issues/Constraints	Actions Recommended	Responsibility
<p>assessment of viable agricultural projects difficult.</p> <ul style="list-style-type: none"> • Farmers request small loans that are not profitable for banks given the high administrative costs they incur. 	<ul style="list-style-type: none"> - Timely evaluation of the collaterals requirements. - Providing constructive feedback to agricultural entities so that they learn from the process. - Timely approval or rejection of loan application. • Establish Structured Commodity Finance Facilities in each province in partnership with existing MFIs to solve farmers' liquidity constraints and allow them to raise cash to buy farm inputs and have greater control over their marketing decisions. 	
<p>3. Unfavorable Lending Terms and Conditions</p> <p>Farmers and agri-input traders are excluded from financial services in four ways: (i) access exclusion: e.g., through risk screening; (ii) condition exclusion: product design inappropriate for the needs of farmers and agri-input traders; (iii) price exclusion: financial products too costly; and (iv) self-exclusion: some farmers and traders are not applying in the belief that they would be refused.</p> <ul style="list-style-type: none"> • Strict collateral requirements. • High processing fees and charges. • Short length of loans. • Unfavorable loan repayment period, which begins from the time the loan is issued. • Illiteracy and the lack of management knowledge prevents the majority of farmers and agri-input traders from being able to adequately complete the technical and financial feasibility study documents required by banks. 	<ul style="list-style-type: none"> • Promote competition among banks by encouraging market access and ensuring market transparency through dissemination of information on lending terms and conditions. • Strengthen the Capacity of Existing Producers' Organizations to Access Credit. This should include training and guidance in the following areas: <ul style="list-style-type: none"> - Explanation of the work of banks, loan application procedures, and reasons for acceptance or denial of loans. - Preparation of profitable projects that are to be submitted to banks and MFIs (writing, editing). - Development of business plans. - Liaison between organizations and banks (assistance with contacts and meetings with bank staff) before and after credit requests are submitted to the bank. - Management of credit and repayment to reduce repayment risks and sustain access to credit. • Improve Access to Business Finance The CATALIST project can facilitate access to credit, through the AGFs, by training: <ul style="list-style-type: none"> - Staff of commercial banks and Peoples Bank on the technical aspects of the agri-input business and lending mechanisms that are available in other countries for agri-input traders. - Private traders in business organization and management; investment analysis and feasibility studies; writing project proposals; loan applications; lending mechanisms to farmers' associations and farmers. 	<p>CATALIST project, BNDE, MFI, commercial banks, farmers' organizations, private sector</p>

Issues/Constraints	Actions Recommended	Responsibility
<p>Weak Impact of Donors/Government Initiatives on Availability and Access to Credit</p> <ul style="list-style-type: none"> • The existing donors, government initiatives, and projects are hampered by bureaucratic bottlenecks and a rigid loan review system that make them inaccessible to many agri-input traders and farmers. • Farmers' associations and agri-input traders are seldom able to prepare loan application documents that meet the requirements of the Central Banks. 	<ul style="list-style-type: none"> • Simplify loan review system. • Train farmers' organizations and agri-input traders in drafting projects for loan application. 	<p>CATALIST project, Central Banks, BNDE, farmers' organizations.</p>
<p>Long Distances and High Transportation Costs to Reach Lending Institutions</p> <ul style="list-style-type: none"> • Financial institutions remain largely concentrated in Bujumbura with no branches in rural areas. • Farmers and traders from remote areas have to walk or drive for many hours not only to open an account or ask for a loan, but also to make a deposit, receive information, or have a request. • To add to the cost of time and transport, one must also add the opportunity cost of their absence with respect to daily tasks. • Long distances and transportation costs are a major obstacle to access funds from the national development banks and commercial banks. 	<ul style="list-style-type: none"> • Develop rural infrastructures. • Establish bank branches in rural areas. 	<p>BNDE, GOB, CATALIST project</p>

CATALIST WORK PLAN: To facilitate the development of agri-input markets in Burundi, draft work plans are suggested in Table 18, below. This may help in the preparation of a final work plan by the project management. This may be treated as an IFDC internal document.

Table 18. Suggested CATALIST Work Plan for Fertilizer Market Development in Burundi

Activity		Year 1 Quarter				Year 2 Quarter				Year 3 Quarter				Year 4 Quarter				Year 5 Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Assessment of Agricultural Input Markets																				
2	TA to MINAGRI in the registration of agro-dealers																				
3	TA to MINAGRI in developing strategy for sale of fertilizer and strengthening of Input Supply Chain, including logistics planning and access to credit																				
4	Training of agro-dealers in agricultural inputs marketing and farm advisory services																				
5	New linkage of agro-processing companies (wheat/maize/rice/tea and coffee), agro-dealers, commercial banks, and farmers.																				
6	Facilitation of MINAGRI/ISABU in the upgrading of quality regulations and enforcement system, including training of inspectors																				
7	Initiation of collection and dissemination of input and crop produce availability and market prices in collaboration with MINAGRI																				

Activity		Year 1 Quarter				Year 2 Quarter				Year 3 Quarter				Year 4 Quarter				Year 5 Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
8	Facilitation of the formation of fertilizer supplier association of Burundi and training of executive members																				
9	TA to MINAGRI in the training and networking of extension services with private dealers																				
10	Facilitation and training of dealers in packaging of small fertilizer packs.																				
11	Develop and initiate promotion of fertilizer use and improved seeds through mass media radio/press																				
12	Facilitation of ISABU in conducting fertilizer use efficiency trials to update recommendations																				
13	Initiation of discussions regarding collective procurement, transportation, and warehousing of fertilizers with Rwanda, DRC, and COMESA.																				
14	Input market assessment and formulation of input market development strategy for Tanzania and Uganda																				
15	Training of agro-dealers in agri-marketing, logistics management, and farm advisory services in Tanzania and Uganda																				
16	Facilitation in the formation of a Regional Fertilizer Importers Association and training of executive members																				
17	Facilitation in production and marketing of seeds in collaboration with MINAGRI																				

References

- ACTES SEMINAIRE CTB ISABU, April. 2006.
- Belgian Project Activities, 2007 [CTB/FAO, Burundi].
- République du Burundi. 2001. Banque de Données sur les Systèmes Financiers Décentralisés.
- Gouvernement du Burundi/Programme des Nations Unies pour le développement. Mars 2004. Renforcement des capacités en micro finance pour le Burundi. Agence d'exécution: Bureau internationale du travail (BIT).
- International Monetary Fund. August 2006. Burundi: Selected Issues and Statistical Appendix. IMF Country Report No. 06/307.
- IFAD. 1999. Report and Recommendation of the President to the Executive Board on a Proposed Loan to the Republic of Burundi for the Rural Recovery and Development.
- International Monetary Fund. September 2005. Burundi: Poverty Reduction Strategy Paper—Preparation Status Report. IMF Country Report No. 05/325
- Castelo et al. 2003. Agricultural Trends and Technology Indicators: Burundi. ASTI Country Brief No 5. July 2003. IFPRI.
- République du Burundi. 2006. Politique Sectorielle du Ministère de l'Agriculture et de l'Elevage: Relance et Développement Durable du Secteur Agricole.
- Ministère de l'Agriculture et de l'Elevage du Burundi. 2006. Evaluation des Récoltes, des Approvisionnements Alimentaires et de la Situation Nutritionnelle Saison 2006 B.
- Ministère de l'Agriculture et de l'Elevage du Burundi. 2006. Evaluation des Récoltes, des Approvisionnements Alimentaires et de la Situation Nutritionnelle Saison 2005 B.
- Système d'Alerte Précoce Surveillance de la Sécurité Alimentaire au Burundi (SAP-SSA). Bulletin n°51/Septembre 2006. Publication : Octobre 2006.

Annex Table 1. Stakeholders Interviewed During the AIMs Assessment

STAKEHOLDER	NAME	DESIGNATION	ORGANISATION	PHONE #	E-MAIL
Private Sector	Theodomir Rishirumuhirwa	Director General	AGROBIOTEC	257 24 19 72/0824580	agrobiotech2002@yahoo.fr
	Devot Nzohabomayo	Accountant	SOCOMIPP	257 24 11 48/257 91 53 19	
	Florence Ininaazwe	Dealer	Le Kiosque des Agriculteurs, Bujumbura Central Market		
	Zephyrin Nkeshimana	President Director General	SOCOMIPP	257 21 60 31/257 950 656/257 927 183	
	Edward Hicintuka & Mrs.	Managing Director	Appro-Services s.a. Bujumbura	257 22 10 95/257 920 300	ehicintuka@approservices.com
Financial Institutions	Flora Irakoze	Chief of Credit and Commercial Development Department	Banque Nationale pour le Développement Economique	257 237643/872022	turahimbawe@yahoo.fr
	Beatrice Bukware	Secretary General	Banque Nationale pour le Développement Economique	257 223972	bnde@cbing.com
	Sentore Leonard	2nd Vice Governor	Banque de la République du Burundi	257 222259/932122	sentoleon@hotmail.com
	Liberate Kiburago	Chief of Import-Export Services	Banque de la République du Burundi	257 226103/924142	lkiburago@yahoo.com
	Marie-Louise Nsabiyumva	Executive Director	Caisse Coopérative d'Epargne et de Crédit Mutuel	257 249527	cecm@cbinf.com
	Cyprien Ndayishimiye	Executive Secretary	Network of Micro-Financial Institutions in Burundi	257 251958/990790	rimburundi@gmail.com
Research Institutions	Denis Bandushubwenge	Director of the Department of Animal and Crop Production	Burundi Institute of Agricultural Sciences (ISABU)	257 25 46 54/730 170	cyrianzajibwami@yahoo.fr
	Pascal Ndayiragije	Director of the Department of Environmental Studies and Farming Systems	Burundi Institute of Agricultural Sciences (ISABU)		ndayipascalisabu@yahoo.fr
	Pascal Baridomo	Dir. National Bureau.	INADES – Formation.		baridomopascal@yahoo.fr

Farmers' Organizations	Venant Niyongere	Dir. General	SRDI Rice Co-op.	257 27 20 37/257 736 046	niyongerev2@yahoo.fr
	Annick Sezibera	Legal Rep.	CAPAD Farmers' Union.	257 21 79 02/257 952 176	sezannick@yahoo.fr
Public Institutions	Jean-Pierre Madebari	Director of the Department of Soil Fertility and Productivity	Ministry of Agriculture and Livestock, Gitega		
	Melance Ntirampeba	Permanent Secretary	Ministry of Agriculture and Livestock, Gitega	257 22 2087/ 404220-21/ 990037 / 753451 cel	ntiramelance2006@yahoo.fr
	Marcien Nibasumba	Interim Director of the Department of Soil Fertility and Productivity	Ministry of Agriculture and Livestock, Gitega		mnibasumba2001@yahoo.fr
	Eliakim Sakagoya	Director of the Department of Vegetable Production	Ministry of Agriculture and Livestock, Gitega		sakayoyaeliakim@yahoo.fr
	Vianney Manirakiza	Director of the Department of Seed and Plant Production	Ministry of Agriculture and Livestock, Gitega		manispes@yahoo.fr
	Mbazumutima Dieudonné	Director of Agricultural Training and Extension	Ministry of Agriculture and Livestock, Gitega		
	Alexis Nzohabonimana	General Manager	OTB – Tea Board of Burundi		
	Leopold Gisage.	Logistics Manager			
Donors/Projects	Cyriaque Nzojibwami	Coordinator	HelpAge Burundi		
	Alexis Byamana	Director	HelpAge		
	Jean Pierre Renson	Operations Coordinator	FAO, Bujumbura	257 21 0099/257 863 888	fao-urg-bdi@usa-bu.net