

BURUNDI  
Agricultural Rehabilitation and Sustainable Land Management Project

**Project Brief**

Africa Regional Office

**Date:**  
**Sector Manager/Director:** Joseph Baah-Dwomoh  
**Country Manager/Director:** Emmanuel Mbi  
**Project ID:** P064558  
**Lending Instrument:** Sector Investment Loan (SIL) (IDA-GEF blended)

**Team Leader:** Ousmane Seck  
**Sector(s):** Agriculture, Land Management, Environment  
**Theme(s):** Agriculture sector rehabilitation, rural policies and institutions, other rural development, sustainable land and natural resources management, environmental policies and institutions

**Focal Area:** Land Degradation

**Fully Blended?** Yes

**Project Financing Data**

Loan  Credit  Grant  Guarantee  Other:

**For Loans/Credits/Others:**

**Amount (US\$ millions):**

**Proposed Terms (IDA):** Standard Credit

<b>Financing Plan (US\$ millions):</b>	<b>Source</b>	<b>Local</b>	<b>Foreign</b>	<b>Total</b>
BORROWER		2.15	0.00	2.15
IDA		33.49	1.51	35.00
BENEFICIARIES		0.52		0.52
GEF (planned)		4.81	0.19	5.00
<b>Total:</b>		<b>40.97</b>	<b>1.70</b>	<b>42.67</b>

**Borrower/Recipient:** GOVERNMENT OF BURUNDI

**Responsible agency:** MINISTRY OF AGRICULTURE AND LIVESTOCK

**Estimated Disbursements (Bank fiscal year/US\$ millions):**

<b>FY</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Annual</b>	<b>7.0</b>	<b>8.6</b>	<b>8.4</b>	<b>4.2</b>	<b>4.2</b>	<b>2.6</b>
<b>Cumulative</b>	<b>7.0</b>	<b>15.6</b>	<b>24.0</b>	<b>28.2</b>	<b>32.4</b>	<b>35.0</b>

**Project implementation period:** 2005–10

**Expected effectiveness date:** September 1, 2004 **Expected closing date:**

## CURRENCY EQUIVALENTS

(Exchange Rate Effective February 2004)

Currency Unit = Burundi franc  
 1084 BF = US\$1  
 US\$ = SDR 1

## FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

ADB	African Development Bank
AFO	Administrative and Financial Officer
AIDS	Acquired Immune Deficiency Syndrome
APL	Adaptable Program Lending
COOPEC	Cooperative Credit Unions
DPAE	Provincial Agriculture and Livestock Departments
DPP	Detailed Procurement Plan
IPCMU	Inter-provincial Project Coordination and Monitoring Unit
ERR/FRR	Economic Rate of Return/ Financial Rate of Return
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FMRs	Financial Monitoring Reports
GDP	Gross Domestic Product
GEF	Global Environment Facility
GNP	Gross National Product
GPP	Global Procurement Plan
HIV	Human Immunodeficiency Virus
IDA	International Development Agency
IDP	Internally Displaced Person
IFAD	International Fund for Agricultural Development
INECN	Institute for Environment and the Conservation of Nature, Burundi
IPRSP	Interim Poverty Reduction Strategy Paper
IRAZ	Institute for Agronomic and Zootechnical Research, Burundi
ISABU	Burundian Institute for Agricultural Sciences
LC	Local Communities
LIA	Local Implementing Agencies
MAE	Ministry of Agriculture and Livestock
MATET	Ministry of Land Management, Tourism and Environment
MRRDR	Ministry of Inserting War-Distressed Persons into Normal Life
MINAGRI	Ministry of Agriculture
NAP	National Action Plan (UNCCD)
NGO	Nongovernmental Organization
NPCMU	National Project Coordination and Management Unit
PIM	Project Implementation Manual
PMP	Project Management Plan
PO	Producer Organization
PRASAB	Burundi Agriculture Rehabilitation and Support Project
PSR	Project Status Report
RPF	Resettlement Policy Framework
SIL	Sector Investment Loan
SLM	Sustainable Land Management
SOE	Statement of Expenditure
SP	Service Provider
STABEX	Stabilization System for Agricultural Export Revenues (EU)
SRFP	Standard Request For Proposal
TSS	Transitional Support Strategy
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Program
UNOCHA	UN Office for Coordination and Humanitarian Affairs

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## A. STRATEGIC CONTEXT AND RATIONALE

### 1. Country and sector issues

*Poverty in Burundi.* Burundi was one of the poorest countries in the world even before the severe civil crisis and ethnic conflict in the 1990s that further devastated living conditions, especially in rural areas. Per capita GNP in 2001 was only US\$100, the second lowest in the world.<sup>1</sup> Burundi's 7.4 million people are concentrated in a small geographic area, with a population density of 270 persons per square kilometer, the highest in Africa.<sup>2</sup> Poverty in rural areas, where 91 percent of Burundi's people live, rose from 35 percent in 1992 to 58 percent in 2002. At the same time, urban poverty (mainly in Bujumbura) doubled from 34 percent to 68 percent (nationally, the percentage of poor people rose from 35 percent in 1992 to 59 percent in 1997 and to more than 60 percent in 2002). Overall, income poverty has been at more than 50 percent of the population over the last six years.

The economic collapse and the discontinuation of many public services in Burundi caused widespread suffering and severely restricted agricultural development by making access to agricultural inputs and markets difficult. Crops and cattle were pillaged, and market prices and private sector employment fell while inflation rose. Poverty is especially bad among Burundi's 839,000 refugees and 388,000 internally displaced persons.<sup>3</sup>

*Low agricultural production and productivity.* Burundi has substantial agricultural potential, with adequate rainfall and good soil. About 90 percent of Burundi's people rely on agriculture for their livelihood, and it accounts for 50 percent of GDP and more than 80 percent of export earnings. Agricultural production is mainly rain-fed and subsistence-oriented crops except for such export-oriented cash crops as coffee, tea, and cotton. Burundi was self-sufficient in food production until the civil crisis disrupted production and caused it to lag behind population growth. Looting and destruction of goods and livestock deprived farmers of their most important possessions, and distribution and marketing channels for agricultural inputs and products collapsed. Structural weaknesses in Burundi include poor technological development, low fertilizer use, small plots, and little economic diversification.

*Land degradation and wetlands of Burundi.* By the 1980s the growing population,<sup>4</sup> limited natural resource base, low government investment in the smallholder sector, and an economy limited mainly to employment in the primary sector were already causing land fragmentation,<sup>5</sup> exploitation, and expansion into marginal areas. The Government's lack of research and extension services, and the disruption in the provision of agricultural inputs to the rural sector left agricultural households unable to increase production. Mining natural resources was the inevitable result. The 1994 civil war, coupled with food insecurity and increased vulnerability to climatic pressures, exacerbated the country's problems.

Soil erosion and siltation of the Nile and Congo basin watersheds and Lake Tanganyika have increased due to deforestation and watershed degradation, threatening biodiversity and other ecosystem services. Perverse policy incentives, lack of sound property rights and long-term investment in the land, and weak regulatory and enforcement authority are the main causes of these problems. And resource use planning is hampered by poor monitoring and lack of environmental and natural resource-related data.

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<sup>1</sup> *World Development Indicators 2003*, World Bank.

<sup>2</sup> Burundi: surface area – 27,830 sq km; land area (without Lake Tanganyika) – 21,950 sq km; arable land area – 9,000 sq km

<sup>3</sup> UN Office for the Coordination and Humanitarian Affairs (UNOCHA).

<sup>4</sup> Rural population density at 689 persons per square kilometer of arable land (*World Development Indicators 2003*)

<sup>5</sup> Farm size in most regions averages at less than half a hectare (IPRSP).

The expected return of many internally displaced persons after the civil war and the launch of a project to increase agricultural production will significantly increase the pressure to develop Burundi's wetlands. Environmental services could be affected both directly, through drainage and canalization, and indirectly, through increased runoff and sediment from adjacent hillsides.

*Low capacity for research and extension services.* Overall research capacity is low. Short-term applied research needs to be strengthened. One of the sector's major constraints is the lack of an efficient extension system that translates research solutions into practical packages for addressing farmers' priority constraints and providing a smooth supply of agricultural services. Specifically, inadequate input supplies, lack of credit, and ill-organized and weak service delivery are making farmers' access to inputs almost nonexistent.

The Ministry of Agriculture and Livestock, moreover, has limited capacity to design, implement, and monitor rural development policies and projects. Almost no data is available on the rural sector.

*Excessive dependence on coffee, tea, and cotton.* The last decade's low international commodity prices hit export earnings hard. Coffee accounted for 75–80 percent of export receipts in 1999–2002. Between 1990 and 1997 marketed coffee production plummeted 43 percent and cotton production fell by half. A limited domestic market, weak marketing infrastructure, poor human capacity, and complicated licensing requirements further reduced the competitiveness of these sectors. The tea sector is a government monopoly with high potential for privatization and reform, according to a 1992 EU-financed study.

*Poor access to rural finance.* Lack of access to financing is a major constraint to long-term investment in land and technology. Less than 5 percent of the population has access to credit or other financial services. There are no rural development banks. High risk makes lending unattractive to private commercial banks. Cooperative credit unions exist, but they are unprofitable and cannot efficiently meet the needs of the agricultural financial sector. (For further information, see annex 1.)

## **2. The Government strategy**

The Government of Burundi recognizes the following priorities in agricultural and rural development: (a) raising production and productivity and diversifying sources of income in rural areas; (b) improving the quality of services and their delivery to farmers; (c) improving the institutional framework for better access to markets and appropriate policy planning and implementation; and (d) promoting sustainable land use and improving natural resource management through sustainable farming practices, proactive support for natural resource management, and regulations and incentives addressing environmental externalities.<sup>6</sup>

According to the Interim Poverty Reduction Strategy (IPRSP), the Government seeks to address these issues by (a) supporting the reintegration of displaced persons and other victims of conflict into agricultural production; (b) rehabilitating and developing rural and agricultural infrastructure and promoting small, non-farm income-generating activities; (c) improving the quality of service delivery to farmers with better extension services, access to inputs and finance, and technology; (d) supporting high-value export crop production; (e) supporting microwatershed management, sustainable farming approaches,<sup>7</sup> integrated nutrient and pest management, natural resource use

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<sup>6</sup> Environmental impacts and outcomes, both positive and negative, as a result of project interventions and existing land use that are not assessed/included in economic analyses and in sectoral planning of the above mentioned activities.

<sup>7</sup> Noted in the National Environment Strategy, 1997.

planning for protection areas and buffer zones, land titling and long-term leases, and community management; and (f) stimulating rural employment through public works programs.

The Government is already working on some macroeconomic reforms: (a) implementing a comprehensive strategy for private sector development of coffee, cotton, and horticulture with STABEX funds from the European Union; (b) liberalizing producer pricing and marketing arrangements; (c) enacting a land law; (d) updating national policy and programs for managing natural resources and the environment and enlisting communities to help restore and protect vulnerable ecosystems; and (e) introducing legal and regulatory instruments to improve agricultural planning and management. The Government has also created a program, called the Agricultural Rehabilitation Program for War-Distressed Persons, to resettle refugees and internally displaced persons into their normal life and occupations before the civil war.

As a part of Burundi's participation in the United Nations Convention to Combat Desertification (UNCCD), a National Action Program for the Battle against Land Degradation was drafted in 2001, reviewed for validation in September 2003, and is expected to be released shortly. It lists seven objectives covered by nine project *fiches* and will cost an estimated US\$10.3 million. There have been some positive developments from a pilot program by the Food and Agriculture Organization (FAO): more sustainable farming practices adopted on steep slopes in some areas, a new consensus on the urgency of soil fertility problems and the need for integrated sustainable land management solutions, and efforts to evaluate the impact of land degradation on agro-based production and livelihoods.

### **3. Rationale for IDA and GEF involvement**

Given the prevalence of poverty and history of serious internal conflict in Burundi, there is no other feasible development alternative to reducing poverty than agricultural and rural development. Jumpstarting productive activities in the rural sector and promoting competitive, supportive service delivery (through the private sector when possible) are critical. While the private sector is acquiring the necessary capacity with support from the proposed project, quality public sector service delivery will remain important.

Several development partners—including the International Fund for Agricultural Development (IFAD),<sup>8</sup> the United Nations Development Program, the FAO,<sup>9</sup> the European Union,<sup>10</sup> the African Development Bank (ADB), and the French and Belgian development cooperation agencies—support rural sector activities in Burundi, but their outreach remains geographically and technically limited, with large parts of the country receiving little support (see annex 2). The World Bank's support will strengthen Government partnerships with other donors, coordinate activities, mobilize more donor financing (including incremental grants), and encourage greater discipline and accountability in project implementation.

Unsustainable agricultural practices and deforestation of transboundary resources are global environmental concerns. (For other pressures on natural resources in Burundi, see annexes 1 and 12.) The Global Environmental Facility (GEF) will support investment and capacity building to stabilize soil loss, reduce sediment accumulation, and provide incremental resources for sustainable land management and improvements in land cover. The extra effort required to encourage and

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<sup>8</sup> The Bank operation is expected to scale up activities, piloted by a FAO project, in nine provinces exclusively (Kirundo, Ngozi, Muyinga, Cankuzo, Makamba, Rutana, Bubanza, Muramvya and Mwaro) and in one province (Bururi) shared with IFAD, which operates (Cibitoke, Kayanza, Gitega, and Karuzi) or will operate (Ruyigi and Bujumbura Rural) in the remaining six provinces. GEF supported SLM activities will operate on priority areas identified in preparation.

<sup>9</sup> In 2004, FAO plans to provide hoes, seeds, and a small quantity of fertilizers to nearly all provinces as emergency assistance.

<sup>10</sup> EU support is being coordinated closely with PRASAB and will focus on heavy investments in the cash crops sector.

support sustainable land management should bring long-term benefits for sustainable agriculture and other global benefits, including maintenance and prevention of natural habitat loss. This will contribute to conservation of on-farm and wetland biodiversity, maintenance of the environment services provided by the wetlands, and storage of carbon in forest and wetland sinks.<sup>11</sup> GEF support will help ensure that, alongside the increased agricultural production supported by the International Development Association (IDA), steps will be taken to avoid increased land degradation on the hillsides and direct and indirect detrimental impacts on wetlands, generating such offsite benefits as helping to maintain hydrological cycles that affect international water resource. The global significance of the natural resources as well as the Government's lack of sufficient resources to combat these threats presents a strong case for GEF involvement, which will also help Burundi in its global obligations toward the various environmental conventions.<sup>12</sup>

#### **4. Higher level objectives to which the project contributes**

The proposed Agricultural Rehabilitation and Support Project (PRASAB) would directly improve food security by revitalizing and diversifying agricultural production and establishing sustainable land management. The project is fully consistent with the strategies and activities of the Government's IPRSP, the Agricultural Rehabilitation Program for War-Distressed Persons, and the World Bank's Transitional Support Strategy. The project is also consistent with the priorities and initiatives of the New Partnership for Africa's Development (NEPAD), particularly the agricultural, market access, and environmental initiatives.

The proposed project would specifically address the following issues (details are in annex 4):

- (a) Poor agricultural production and productivity.
- (b) Reintegration of war-stricken distressed population into agriculture.
- (c) Excessive dependence on a few crops and the need to diversify income sources in rural areas.
- (d) Introduction of sustainable land management.
- (e) Inadequate agricultural services.
- (f) Institutional strengthening, especially for subproject planning and policy formulation.

The project would establish explicit links with IDA's second social action project, BURSAP II, now under preparation. In particular, it would link with the building of such new agricultural infrastructure as markets, slaughterhouses, small irrigation canals, and seeds for vegetable gardens in select areas. The project would also establish links with the Burundi Road Sector Development Project, whose rural roads component covers feeder roads in the northern, western, and southern parts of the country and whose feeder roads are chosen by socioeconomic criteria. And the project would link with the agricultural and environmental activities of the Emergency Rehabilitation Credit (ERC I), especially for facilitating proper implementation and accelerating disbursement of non committed funds (US\$5.5 million). PRASAB would organize annual meetings with all project authorities to ensure that its priorities are taken into account in their annual work plans.

The World Bank will work with other donor agencies to focus on activities and areas not covered by their support in order to revive and strengthen rural productive capacity and to improve land and natural resources management. (For further information, see annexes 1 and 2.)

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<sup>11</sup> Marshlands and peat lands represent the largest component of the terrestrial biological carbon pool.

<sup>12</sup> See annex 11



## **B. PROJECT DESCRIPTION**

### **1. Lending instrument**

The appraisal team recommends a Specific Investment Loan (SIL) as the appropriate lending instrument to jumpstart reconstruction in rural Burundi and pave the way for an Adaptable Program Loan (APL). The SIL will be fully blended with a GEF grant to support the sustainable land management component of the project. The appraisal team rejected an APL because the difficulty of post-conflict reconstruction, loss of capacity in general, and disruption of agricultural services in many provinces make it unrealistic for the Bank to initiate a long-term commitment without prior short-term rehabilitation investments.

### **2. Project development objective and key indicators**

The Burundi Agricultural Rehabilitation and Support Project (PRASAB) would contribute to the Government's strategic goal of improving the livelihoods of rural people through economically and ecologically sustainable investments. PRASAB's development objective is to restore the productive capacity of rural areas through investments in production and sustainable land management and through capacity building for producer organizations and local communities. Beneficiaries would also include war-distressed returnees and internally displaced persons.

The proposed project would support these objectives by financing activities to increase the productivity of male and female farmers and farmer groups and by improving the institutional and technical capacities of producer organizations, local communities, and government institutions to revive the rural sector and enhance management of endangered lands.

The activities of the project would complement those financed by other donors and the Government and support existing strategies to revive the rural sector. Also, the approach—including investments by producer organizations and communities, supported by local implementing agencies—has been tested and used by IFAD, the FAO, and the French development cooperation agency.

The key outcome and impact indicators for measuring the effectiveness of project interventions are: (a) number of subprojects and smallholder families benefiting from the production investments, (b) number of startup kits distributed to distressed people (returning refugees and internally displaced persons) returning to agriculture, (c) percentage of producer organizations making profitable investments with the project's help, (d) increase in yields of major food crops from productivity improvements, (g) number of hectares of rehabilitated land and agricultural land protected against degradation, (h) proportion of requests for help with sustainable land management, and (i) change in the use of wetlands in project areas from under production to not under production). (For further information, see annexes 3 and 12.)

### **3. Project components**

The project has three main components (see annex 4 for details):

1. Support for production and sustainable land management investments.
2. Support for capacity building and institutional strengthening.
3. Support for project coordination and management.

## **Component 1. Support for production and sustainable land management investments**

This component would finance demand-driven subprojects and their effective planning and implementation by producer organizations and local communities.

### *Subcomponent 1a. Production and sustainable land management investments*

The subprojects, to be selected on a demand-driven basis using participative approaches, include infrastructure investments and related extension activities initiated by producer organizations and local communities, and other extension activities that are not directly related to these investments but are well targeted and contribute to the project's objectives. Selection criteria, a list of non-eligible investments, and the conditions and mechanisms for subproject preparation, submission, appraisal, and implementation are detailed in the Project Implementation Manual. Examples of typical subprojects are in annex 4. Financing would be through grants, with an upfront beneficiary contribution (cash or in kind) of at least 5 percent of the subproject cost. This component would finance civil works, equipment and materials, training, and technical assistance for subproject preparation and implementation.

This subcomponent would also support the technical assistance required for preparation and implementation of subprojects that increase the productivity of existing farming systems, improve the quality of service delivery (including input supply and training services), and expand farmers' access to high quality seeds and planting material. The National Project Coordination and Management Unit (NPCMU) will contract out these services on a competitive basis to local implementing agencies—competent international and local nongovernmental organizations (NGOs), community groups, cooperatives, and producer organizations. If no local implementing agencies are available, the NPCMU will contract to the Provincial Agricultural and Livestock Departments of the Ministry of Agriculture and Livestock.

Local implementing agencies would provide information on project activities and processes (obtaining funds, reporting) to the groups. Service providers would help producer organizations and local communities that have limited capacity to implement subprojects, if necessary (the subprojects would budget up to 10 percent of project costs for implementation). Particular attention would be paid to subprojects that help the population's most vulnerable segments. Support would also be given to producer organizations that have mechanisms for women to retain their earnings and actively participate in subproject decision-making. The project would ensure that committees at different levels are strengthened and maintain the necessary independence and autonomy in their operations.

Activities to be supported include scaling up the successes of the FAO-supported program that piloted an integrated approach to agricultural productivity enhancement and sustainable land management. The 'Chaine de Solidarite' tested community monitoring of land management activities that were promoted with such incentives as provision of livestock. But as a pilot program, it was limited in scope. Replication of the successes would be done gradually, based on available capacity, social stability, and drive (see annex 4), and would expand to include swamp and hillside management in an integrated microwatershed approach.

The delivery of extension should ensure that the provided technologies are locally applicable and customized for rehabilitating degraded lands, conserving biodiversity, and improving the sustainability of land use in wetlands currently under production. The project would also build

awareness of other sustainable land management subprojects and strengthen the capacities of local communities to manage natural resources.

GEF resources would support the incremental sustainable land management components of subproject proposals that are clearly defined and comply with GEF selection criteria (see annex 4). Sustainable land management activities would address the key land degradation concerns in Burundi’s five agro-ecological zones. The primary focus of these interventions are shown in table 1.1.

**Table 1.1 Primary focus of sustainable land management activities**

<b>Agro-ecological zone</b>	<b>Western Plains</b>	<b>Western Escarpment</b>	<b>Congo–Nile Divide</b>	<b>Central Plateau</b>	<b>Eastern Depression Areas</b>
Main land degradation issue	<ul style="list-style-type: none"> <li>• Salinization</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of farmland due to erosion</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of pastureland due to erosion</li> <li>• Loss of soil fertility</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of soil fertility</li> </ul>	<ul style="list-style-type: none"> <li>• Decreasing availability of soil moisture</li> </ul>
Primary focus for sustainable land management	<ul style="list-style-type: none"> <li>• Improving water management for irrigated land</li> <li>• Creating and protecting a buffer zone around Lake Tanganyika</li> </ul>	<ul style="list-style-type: none"> <li>• Controlling erosion (mountain crest)</li> <li>• Improving cultural practices (lower areas)</li> </ul>	<ul style="list-style-type: none"> <li>• Improving pasture management and erosion control based on reforestation (mountain crest)</li> <li>• Improving soils with calcium amendments</li> </ul>	<ul style="list-style-type: none"> <li>• Expanding agro-sylvo-pastoral production systems</li> <li>• Rehabilitating lowland cultivated areas</li> </ul>	<ul style="list-style-type: none"> <li>• Improving vegetation cover (windbreaks)</li> <li>• Introducing water harvesting techniques</li> </ul>

Specific, technical recommendations for on-the-ground investments eligible under the GEF have been identified by agro-ecological zone and are listed in the Project Implementation Manual.

*Subcomponent 1b. Emergency support for returnees and internally displaced persons*

PRASAB would contribute to the Government’s emergency program by supporting returnees and internally displaced persons in select project areas by helping include them in local producer organizations, where possible, and by financing agricultural startup kits with seeds, planting materials, and inputs and implements for farming and cattle rearing. This subcomponent would join with the National Commission for the War Distressed Persons (NCWDP), and its provincial and commune-level organizations. The project would also seek the guidance of the technical committee’s subcommittee for returnees and displaced people (see section C.2).

## **Component 2. Support for capacity building and institutional strengthening**

### *Subcomponent 2a. Enhancing the capacity of local communities, producer organizations, and local implementing agencies*

The project would enhance the access to information and capacity of producer organizations and local communities. Demand-driven support would be provided for strengthening their participation by renewing local networks and cooperative relationships frayed during the conflict. Other activities include (i) strengthening the organizational, technical, and management capacities of local communities and producer organizations and (ii) promoting an understanding in producer organizations and local communities of the broader environmental management issues related to land degradation and swamp land utilization and benefits.

Capacity building of producer organizations and local communities would be based on training needs and resulting training plans, linked to the productive and sustainable land management subprojects, and offered by contracted local implementing agencies. This subcomponent would support the preparation and implementation of training plans, workshops, and study tours for managers and committee members of producer organizations and local communities. This subcomponent would also strengthen, when necessary, local implementing agencies' capacity to provide services to producer organizations and local communities. The NPCMU has conducted a capacity assessment of local implementing agencies before negotiation and will develop a training plan to address gaps in organizational, technical, and business skills with training, workshops, and study tours.

GEF resources would be made available to strengthen information management by local implementing agencies at the commune level in order to support decision making on sustainable land management and dissemination of good management practices, technologies, and lessons consistent with GEF Operational Policy No. 15. Activities would include:

- Developing training manuals and field guides in local languages on sustainable land management methods in watershed management, wetland management, agro-forestry, soil stabilization, and improved water management.
- Disseminating methods and building awareness of the sustainable land management program of PRASAB.
- Creating demonstration plots and exchanging information at the local and regional levels, including site visits, and farmer-to-farmer exchanges and visits.
- Providing local implementing agencies with training, equipment, and supplies on modern land management methods.

### *Subcomponent 2b. Support for institutional strengthening of key public services*

While the broad support needed for institutional development of the Ministry of Agriculture and Livestock and the Ministry of Land Management, Tourism and Environment is beyond the scope of this subcomponent, assistance would be provided for select activities directly tied to the achievement of expected sector operation results. IDA support would be provided to the Ministry of Agriculture and Livestock and the Ministry of Land Management, Tourism, and Environment to strengthen their capacities for program planning and to develop effective management systems for monitoring agricultural investments. The project would finance the purchase of vehicles, office equipment, consultants, services, training, workshops, and study tours.

This subcomponent would finance the rehabilitation of a limited number of research stations, small equipment, vehicles, and agricultural inputs as well as training, workshops, and operating costs associated with research.

GEF resources would help the Ministry of Land Management, Tourism, and Environment and the Ministry of Agriculture and Livestock identify acceptable and functional priorities of sustainable land management and develop integrated approaches adapted to each region's agro-ecological zones. The GEF would also support analysis and advisory activities to design a modern, national institutional framework for land management and to strengthen national planning for land resources, including a national land management plan. This would involve close coordination among the ministries and their agencies and would include improvements in monitoring and coordination of the use of natural resources, and planning and resource allocation.

Activities to be financed include:

- Developing a national framework for sustainable land use planning through studies, workshops, and consultations.
- Strengthening participatory institutional and legal mechanisms to ensure close collaboration and information exchange on sustainable land management by agencies under the Ministry of Agriculture and Livestock, notably Burundian Institute for Agricultural Science (ISABU), Institute for Agronomic and Zootechnical Research (IRAZ), Provincial Agricultural and Livestock Departments (DPAE), Geographical Institute of Burundi (IGEBU), National Institute for Environment and the Conservation of Nature (INECN), and Department of Rural Infrastructure, Planning and Land Management (DGRPPF) through regular workshops.
- Implementing the recommendations of the special report<sup>13</sup> on the program for evaluating land degradation and sustainable land management in the areas covered by PRASAB.
- Publishing an annual State of the Environment report by the Center for Environmental Information.
- Supporting an environmental monitoring framework by conducting periodic evaluations of land degradation in PRASAB sites, strengthening laboratory facilities of the INECN for soil and water analysis and ISABU for field mapping, and providing technical support to PRASAB.
- Training staff in wetlands and sustainable land management, with site visits, among other tools.
- Setting regional priorities for land conservation in dry land areas with the National Program for Erosion Control.

This subcomponent would also finance improvements in agricultural research. Given the limited research capacity in the country and the specific needs of producer organizations and local communities, the project would support focused, short-term (two to three years) applied research aimed at solving productivity constraints in agriculture. The project interventions would complement assistance from the Belgian Technical Cooperation (BTC), which has already helped rehabilitate research infrastructure and equipment (ISABU), to support continuing education, training, study tours, and workshops for researchers. Once rehabilitated, the institutes would focus on the local application and development of lessons and research carried out elsewhere rather than duplicating fundamental research

GEF resources would support research targeted at sustainable land management with an emphasis on field testing and package distribution including:

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<sup>13</sup> Under preparation by Buursink, Bikwemu, and Habonimana.

- Agricultural practices that improve the fertility and physical and chemical conditions of soil and systems that intensify fodder production to counter overgrazing.
- Economically valuable wood species that cause less soil degradation than agricultural crops (trees for fodder, fuel wood, construction timber, fruit, medicinal plants, and the like).
- Assessment of the economic impact of land degradation in the agro-ecological zones of PRASAB and the benefits of early intervention to prevent or control degradation.

### **Component 3. Support for project coordination and management**

This component would finance project management and monitoring and evaluation. The main costs relate to establishing and supporting the NPCMU and three decentralized Inter-provincial Project Coordination and Management Units (IPCMUs) responsible for coordination and continuous monitoring, audits and periodic evaluation studies, and reporting. The project would support the salaries of a small team of experienced technical specialists, as well as office rehabilitation, vehicles, consultant services, and training, workshops, and study tours for NPCMU and IPCMU staff. The operating costs of these units and the preparation and implementation of a project completion report would also be covered.

The project would also support administration and tracking of sustainable land management activities and monitoring of the project's environmental indicators. Additional resources would be provided for training, workshops, and study tours for NPCMU staff to establish the participatory processes for community-level implementation.

### **4. Lessons learned and reflected in the project design**

Several Bank-financed projects in Burundi offer valuable lessons for the design of this project:

- Project design should be kept simple and tailored to the borrower's capacity to absorb and implement the project.
- Sustainability in rural development programs ensures the full involvement of the most affected people. This project would work with local producer organizations and would expand stakeholder contacts to include a broad cross-section of local communities.
- Efforts to increase agricultural production are likely to fail without concrete steps to minimize soil degradation. The project's GEF contribution follows the UNCCD's recommendation of maintaining soil fertility and quality and minimizing environmental impacts.
- An in-depth institutional analysis of the participating institutions is essential, and the project implementation schedule should be established on the basis of this assessment.
- GEF-supported activities should follow a two-pronged strategy: specific investments should intensively focus on select areas but use integrated solutions, and advisory activities should address policy gaps to mainstream sustainable land management objectives.
- A sound integrated monitoring framework—with technical financial and accounting, and information on methods and indicators for monitoring—should be prepared and included in the Monitoring and Evaluation Manual.
- The risk that new entities would become overly bureaucratic can be avoided through competitive selection of local implementing agencies.

Rural development projects in other countries also provide valuable lessons. For instance, the Agricultural and Livestock Services Project in Chad and the Food Security Project in Benin showed that using NGOs and bilateral agencies as local implementing agencies for certain components can provide relatively fast and impressive results. But the administrative and operations costs absorbed

by such agencies can be high and should be controlled. The FAO pilot program in Burundi and the Critical Ecosystems project in Rwanda provided useful information on practical sustainable land and natural resources management.

The first GEF project in Lake Tanganyika addressed land degradation and pollution, but efforts to launch a significant program in Burundi were hampered by the civil unrest. A second project is now under preparation. The FAO experience in constructing small irrigation works, terraces, and other basin management works has been fairly positive. But some works carried out during project cycles are not maintained after the project ends, and others have been destroyed. The reluctance to “waste” valuable land on runoff prevention and dykes has to be addressed, and sustainability has to be achieved. The project would address these risks by supporting close coordination among the beneficiaries and strengthening the capacity of water user associations on sustainability and maintenance issues (for further information, see annex 2).

## **5. Alternatives considered and reasons for rejection**

*Nature of the project.* Given the multidimensional and extensive needs of Burundi’s rural sector, a broad, integrated rural development operation was a tempting option. But the complex management and coordination tasks involved and uncertainties of the country’s implementation capacity forced the appraisal team to choose a more focused approach with fewer components.

This project would be one of the initial projects under the GEF’s operational program on sustainable land management (OP15). A fully blended project was chosen to demonstrate how immediately increasing local production could be fully integrated with measures to ensure greater sustainability, rather than with separated and unrelated initiatives. Moreover, a blended project was preferred to a standalone project because of limited technical capacity and financial resources, and because it would facilitate more coordination between the environment and agriculture ministries, where the requisite skills and knowledge for project implementation are. A standalone GEF project would have a more limited impact compared with a larger blended IDA-GEF project, which can more widely mainstream environmental considerations.

*Credits or grants for production investments (subcomponent 1a).* Stakeholders and support agencies have long discussed the pros and cons of financing subprojects for producer organizations with grants rather than with credits. Factors in favor of one-time grants, with a small contribution from beneficiaries, were the lack of rural finance institutions, the extreme poverty resulting from the civil war, and the need to quickly reconstruct the countryside after the conflict.

*Choice of instrument.* Returning refugees and internally displaced persons were factors in the decision of what type of instrument—emergency or regular operation—to use for rehabilitating the agricultural sector. The Decision Meeting agreed that PRASAB would be primarily an investment project, laying a basis for medium-term growth in the agricultural sector. But in the short term PRASAB would also address the needs of war-distressed people.

## **C. IMPLEMENTATION**

### **1. Partnership arrangements**

The project would be financed by the IDA, a GEF grant, the Government of Burundi, and beneficiaries. Despite the project’s self-standing nature, it would be linked closely with the development efforts of the international agencies already active in the rural sector in Burundi. The main sources of support are IFAD, the European Union, the ADB, and the French and Belgian

cooperation agencies, many of which are involved in specific activities that would benefit from the project's complementary financing to producer organizations or local implementing agencies and service providers (see annex 2 and the Comprehensive Development Framework in the Project Files). For instance, in 2004 FAO plans to provide hoes, seeds, and a small quantity of fertilizer to nearly every province as emergency assistance. The project would expand some of the activities started by international agencies into larger areas. The project's environmental activities would be closely coordinated with other implementing and executing agencies through the GEF's mechanisms and through close coordination among donors of activities on the ground at the country and river-basin level. The coordination and partnership arrangements with donors would include participation in the project's Steering Committee, common supervision missions, common biannual reviews, and broad distribution of reports.

## **2. Institutional and implementation arrangements**

*Implementation agencies.* The Ministry of Agriculture and Livestock would have overall responsibility for project implementation, in close coordination with the Ministry of Land Management, Environment, and Tourism (for implementation of the GEF-supported sustainable land management activities) and the Ministry of Reinstallation of Returnees and Displaced Persons (for assistance to people displaced by the civil war).<sup>14</sup>

At the national level a steering committee, chaired by the Ministry of Agriculture and Livestock and composed of ministers of other key ministries, would define agricultural policy and strategies for its execution. A technical committee, composed of high-level officials of these key ministries, agencies, and institutions (ISABU, IRAZ, INECN, the University of Burundi, and NGOs) would monitor and guide project operations, and review and approve annual work plans and budgets to be submitted to the National Steering Committee. A technical subcommittee, chaired by the Ministry of Environment, would focus on implementing and monitoring sustainable land management activities. Another subcommittee, chaired by the Ministry of Reinstallation of Returnees and Displaced Persons, would provide guidance in implementing emergency support for returnees and internally displaced persons (subcomponent 1a). Participation of other ministries and departments that can provide support to the project, and the composition and tasks of the project-related committees, are described in annex 6 and the Project Implementation Manual.

*Project coordination and management.* The NPCMU, under the Ministry of Agriculture and Livestock, would be responsible for the coordination and operational and financial implementation of the project. The NPCMU would consist of a project coordinator, an institutions and community development specialist, a rural development specialist, a sustainable land management specialist, a monitoring and evaluation specialist, a financial specialist, a procurement specialist, an accountant, and support staff, including an information technician. The project would have three IPCMUs—in Makamba, Musinga, and Muramvya. Each unit would cover three to four neighboring provinces.

*Implementation of subcomponents.* The implementation arrangements for each subcomponent, including eligibility criteria and non eligible activities, are detailed in annex 6 and the Project Implementation Manual.

*Flow of funds and accountabilities.* During the initial stages of the project, the IDA disbursements would be based on standard procedures and on the use of Special Accounts and Statements of Expenditures. The project would be eligible for IDA's more advanced disbursement procedures after providing satisfactory project management reports to IDA for two consecutive quarters. Annex 7 details the financial management and disbursement arrangements. The GEF grant would be

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<sup>14</sup> Le Ministère à la Réinsertion et à la Réinstallation des Déplacés et des Rapatriés (MRRDR).



disbursed through a designated GEF Special Account for clearly identified incremental sustainable land management interventions.

The following Bank accounts are currently maintained for project preparation funds:

- Special Account A (denominated in U.S. dollars). This account serves as the main project account for project implementation funds from IDA.
- Special Account B (denominated in U.S. dollars). This account receives GEF funds.
- Project Account (denominated in local currency). This account receives counterpart funds from the Government of Burundi.

The project would retain the current banking arrangements. The chart in annex 7 illustrates the proposed banking and funds flow arrangements. (For further information, see also annexes 6 and 8.)

### **3. Monitoring and evaluation of outcomes and results**

Monitoring and evaluation would be an important function of the NPCMU. A comprehensive baseline study was prepared to gather data on the startup situation, establish appropriate targets, and allow key indicators to be compared at regular intervals. Annex 3 lists the main expected outcomes, results, and indicators for measuring the project performance. It also contains a more comprehensive list of indicators in a log frame for project management. These indicators, and their intermediate and final targets, would be consolidated in a Monitoring and Evaluation Manual to be adopted by the Government.

Annex 12 provides a framework for assessing land degradation that directly supports the vision and objectives of OP15 - SLM. It comprises two parallel assessment approaches, one at the national level and one at the local level (commune or watershed level). Each assessment approach involves:

- Assessing baseline conditions of land degradation.
- Identifying optimum solutions to combat land degradation and evaluating the impacts of PRASAB and GEF interventions on land degradation.

To measure achievement of development objectives, the Bank, with the help of competent outside agencies, will evaluate the project at its midterm and at the end of the project period. (For further information on monitoring and evaluation see annex 3.)

### **4. Sustainability and replicability**

Despite having an emergency feature, the project's main purpose is to provide a framework for sustainable agriculture. Its extensive coverage and blended nature makes it the first project of its kind in Burundi. Its long-term sustainability is uncertain because of the post-conflict conditions and rehabilitation issues in the country. However, it is in line with Burundi's rural and agricultural development policy and its Interim Poverty Reduction Strategy and operations would likely continue after the project is completed. Moreover, the project is within a larger framework of which complementary activities are endorsed and financed by other development agencies, which could continue even if a follow-on project is not financed by the World Bank Group. Appendix 1 of Annex 2 provides the framework of donor involvement in rural development and their investments in the areas of institutional support and capacity building, livelihood generation, and environmental sustainability.

Sustainability of the productive investments and capacity building financed by the project would be enhanced by empowering producer organizations and civil society organizations and increasing their management responsibilities in agricultural support services. An important part of each subproject design would be a maintenance plan that collects funds from the beneficiaries of subproject facilities.

GEF-supported actions would lay the foundation for a long-term sustainable land management framework to carry on the resource management techniques to the next phases of rural development. Experiences and practices from successful sustainable land management, particularly in erosion control, soil fertility and watershed management, and sustainable use of wetlands and conservation will feed into the national land management strategy and would provide the basis for replication through future sub-projects and other donors' assistance programs as they move from emergency relief operations to long-term development interventions, including agricultural development and natural resources management programs. Project lessons would be shared with other countries in the region and links developed with regional and other research and institutional strengthening initiatives.

Negotiations with rebels for a ceasefire are expected to allow project activities to be implemented across the entire country. But the project is designed to reach up to 10 provinces (see footnote 8). The project's geographical selection criteria are detailed in the Project Implementation Manual.

## 5. Critical risks and possible controversial aspects

Risks	Risk mitigation measures	Mitigated risk rating
<p><b><i>To project development objectives:</i></b></p> <ul style="list-style-type: none"> <li>• Insecurity and potential lack of adequate social stability in project areas.</li> <li>• Land use disputes and conflicts that would prevent successful implementation of sustainable land management activities.</li> </ul> <p><i>To Component 1: Support to production and sustainable land management investments</i></p> <ul style="list-style-type: none"> <li>• Producers and communities may be too slow to form new producer organizations, delaying project implementation.</li> <li>• Lack of adequate counterpart funds, especially needed for investments and operations by the Ministry of Agriculture and Livestock and Ministry of Land Management, Tourism and Environment.</li> <li>• Funds for subprojects may</li> </ul>	<ul style="list-style-type: none"> <li>• National and local government support, careful selection of project areas, and involvement of local communities and stakeholders in project preparation and implementation.</li> <li>• Social stability and the lack of conflict are prerequisites for subproject approval. Conflict resolution would be encouraged through traditional channels. A participatory process involving communities and raising awareness of the long-term benefits of development activities would be used to promote sustainable land management activities.</li> <li>• Many producer organizations already exist, and the project would finance service providers to help producers and communities better understand the benefits of group and participatory approaches.</li> <li>• IDA funds would be released only when the Government of Burundi has deposited the agreed counterpart funding in a project bank account.</li> </ul>	<p>H</p> <p>H</p> <p>M</p> <p>S</p> <p>S</p>

<p>not be used efficiently, economically, or exclusively for intended purposes. Funds may not be properly accounted for.</p> <p><i>To Component 2: Capacity building and institutional strengthening</i></p> <ul style="list-style-type: none"> <li>Lack of capacity at the local levels may be a bottleneck for subproject implementation and operations.</li> </ul>	<ul style="list-style-type: none"> <li>The NPCMU and IPCMUs would advise producer organizations on accounting for project transactions. Accounting procedures applicable to subprojects would be simple, with an emphasis on reporting.</li> <li>Communities would be involved in monitoring subproject expenditures.</li> <li>Programs to strengthen the capacity of producer organizations, local communities, local implementing agencies, key public services, and other concerned groups have been designed as an integral part of the project.</li> </ul>	<p>S</p>
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Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

## 6. Loan and credit conditions and covenants

The conditions for project effectiveness will be the following:

- Depositing into the project account the Government counterpart funds (equal to at least a four-month contribution of the Government).
- Setting up an integrated financial management, accounting, and financial monitoring information system for the project.
- Recruiting independent auditors to audit project accounts.
- Ratifying the Development Credit Agreement by the Government and the National Assembly.

## D. APPRAISAL SUMMARY

### 1. Economic and financial analyses

#### (a) Economic

NPV = 8.9 billion Burundi francs, at 12 percent discount rate; ERR = 33 percent

The financial benefits will not be quantified for the entire program, so an overall economic rate of return for the project has not been computed. But the economic rate of return has been computed for the productive investments and their support subcomponent. (Economic and technical data, summarized in annex 9, are based on farm and subproject models and are available in the Project Files and in the Project Implementation Manual.)

Many qualitative benefits would accrue to the country and its economy from the project, including increased monetization (reflected by reduced barter); increased efficiency in the productive rural sector (from improvement in farmers' skills and the quality of producer organizations); and more participation in the economy by marginal groups.

#### (b) Financial NPV= N/A; FRR = varying by subproject (see annex 9)

The financial benefits of the productive investments and support subcomponent and analysis of the representative farm and subproject models are presented in annex 9. Since this subcomponent facilitates investments by the final clientele at the grassroots level, measuring the return on investments and increase in rural incomes is critical. The financial impacts of the remaining subcomponents cannot be quantitatively determined so the overall financial rate of return for the project is not computed.

## **2. Technical**

A potential technical problem is the limited capacity of producer organizations and local communities to prepare subprojects. But the production and sustainable land management subprojects are small, and competent service providers can help if beneficiaries lack the required capacity.

For sustainable land management, the important technical issue is sustainable approaches for Burundi. There has been considerable resistance to land and soil conservation measures because people see it as wasting land. Approaches with more productive soil conservation solutions, such as growing productive hedgerows, vetiver, or pasture grass, are desirable. Demonstration and sensitization are essential for change. There may also be resistance to other unfamiliar techniques, such as “no-till” cropping. Productivity would only be raised on a sustainable basis if technologies that are appreciated and understood by the population are established.

## **3. Fiduciary**

The NPCMU is new, and its financial management system has not been fully established yet. An assessment of the project’s financial management arrangements included a review of accounting, reporting, auditing, flow of funds and internal control systems. Operational systems are being defined and documented, and personnel are being trained. The project would establish a financial management system to support management, monitoring, and control of project resources to ensure efficiency and effectiveness in output delivery for program objectives. The project would produce the financial monitoring timeline in the Financial Management Assessment Report. (The financial monitoring timeline is presented in annex 7. Further details about the financial, disbursement, and procurement arrangements are in annexes 7 and 8).

## **4. Social**

*4.1. Opportunities, constraints, impacts, and risks arising out of sociocultural context.* The project has a framework for community participation in subproject preparation and implementation that outlines (i) the steps in community development, (ii) subproject selection criteria, and (iii) a monitoring and evaluation process. For example, communities would be asked to form diverse project committees as their liaison with PRASAB. Awareness building and capacity building would continue for at least a year, or as long as a community has producer organizations or community activities engaged with the project. Capacity building would be supported by the sustainable land management program, especially in areas with high environmental sensitivity (important wetlands, steep slopes, poor soil) because people have focused on meeting short-term survival needs and because land in Burundi is managed mainly at the household level. Grants would be provided through subprojects for investment in the sustainable land management program’s longer term benefits.

Participants would be included in monitoring and evaluation. Project committees would be able to collaborate with project agents to produce PRASAB’s trimestrial reports and verify them with

producer organizations and local communities. The qualitative reports of local implementing agencies would allow producer organizations and local communities to evaluate progress in terms of problems and solutions and to reformulate the project's activity schedule if necessary. Different stakeholders can choose to hold meetings and report their own information.

Land tenure conflicts are likely to be a serious issue for the rural population. These conflicts can be intra-ethnic, inter-ethnic, or even between families. Reintegrating returnees of all types will exacerbate land tenure conflicts that were already a major problem before the war. Ethnicity, a hidden factor in land conflicts, caused people to leave during the civil war and lose their land. But land tenure conflicts are also a land problem. Lack of conflict is a precondition for subprojects, and any conflicts arising from or related to sustainable land management subprojects would be addressed through conflict resolution measures based on local traditions. Land conflicts are first addressed to the community notables (*Bashingantaha*), and if they cannot resolve them, they go to the Communal Administrator and, if necessary, to a communal tribunal.

*4.2 How would key stakeholders participate in the project?* Country visits during project preparation and appraisal to commune-level officials and local offices of the Ministry of Agriculture and Livestock and the Ministry of Land Management, Tourism and Environment laid the groundwork for administrative and technical project support. Members of rural communities were interviewed for input on their participation. They would participate in all project stages, from design to evaluation, through community-level and producer organizations subprojects. The Ministry of Agriculture and Livestock would have overall responsibility for the project, having participated in its planning and design and collaborated with key ministries (Land Management, Tourism, and Environment; Communal Development; Planning; and Reinstallation of Returnees and Displaced Persons). The technical committee would facilitate participation of key agencies, institutions, and NGOs, such as ISABU and INECN (see annex 6).

#### *4.3 Potential social issues.*

<b>Potential social issue</b>	<b>Yes</b>	<b>No</b>
1. Differential access to project benefits	x	
2. Traditional rights or entitlements?		x
3. Conflicting demands on the same resources	x	
4. Positions of expected winners and losers	x	
5. Risk of adverse social impacts of the project		x
6. Social risks to the project	x	
7. Public perception and degree of voice in governance		x
8. Adequacy of targeting and delivery mechanism:		x

(1) *Differential access to project benefits.* There may be differential access to some of the rural population. People who have been socially marginalized and have difficulty joining or forming a producer organization (returnees, child household heads, ex-combatants) may not have the resources needed for productive investments, but they would benefit from sustainable land management investments in communities where these investments take place. The returnees would benefit from the emergency assistance for war-distressed people included in the project.

(3) *Conflicting demands on the same resources.* Resettlement of returnees may put additional and/or conflicting demands on the resources as some returnees may find that their land has been appropriated or sold during their absence, a potential source of conflict.

(4) *Positions of expected winners and losers.* Funding some POs and not others may well be a source of community conflict or tension.

(6) *Social risks to the project.* With some rebels having become bandits, violence and theft directed at project personnel and resources (vehicles, computers) are risks. PRASAB's territorial offices and personnel may be particularly at risk in an impoverished rural context.

4.4 *Monitoring the main social impacts of the project.* The main social issues of the project would be monitored through baseline, biannual, and final evaluations, as well as periodic and topical surveys each year (see further aspects on social issues in annex 10.)

## 5. Environment

Potential issue	Yes/No	Integration, if applicable
Establishment of a policy, regulatory, and institutional framework for environmentally sustainable growth and natural resource management.	Yes	The project would support preparation of the <i>textes d'application</i> for environment assessment procedures. The Environment Code was enacted by the Government in 2000. The code assigned authority for the environment to the Ministry of Land Management, Tourism and Environment. The adoption of national environmental assessment procedures would (i) ensure that future development activities are assessed for potential environment and social impacts during the planning stage and that appropriate mitigation measures are adopted and (ii) provide a legal basis for the Ministry of Land Management, Tourism and Environment to enforce environmental analysis assessment requirements in the country.
Enhancement of the livelihoods of the poor through better and more transparent management of natural resources and less vulnerability to environmental change.	Yes	The project's capacity building for producer organizations and local communities would enhance the livelihoods of poor people. Capacity building would take place in sustainable land management, pest management, small irrigation infrastructure management, and environment analysis, particularly environmental screening of subprojects. Producer organizations would also benefit from the opportunity to exchange information on best practices, transfer of knowledge, and study tours to neighboring countries.
Protection from environmental risks and pollution.	Yes	Subprojects proposing small irrigation or pesticide use and those related to the artisanal production of palm oil would be required to carry out an environmental impact assessment at the planning stage to ensure that potential impacts (salinization, pesticide poisoning, water pollution, and water-related diseases) are identified early and mitigated during subproject implementation. Support would also be provided for the development of the Project Implementation Manual.

The main results of the project's safeguard policy studies were (a) the development of an environmental screening process for subprojects; (b) the preparation of a pest management plan with provisions for training in the safe handling of pesticides and integrated pest management; (c) the identification of training needs for management of small irrigation infrastructure, including small dams; (d) proposals for effective environmental management at the Ministry of Land Management, Tourism and Environment; and (e) preparation of an Environmental Management Plan. These studies were discussed during the appraisal mission, including coordination mechanisms for the Ministry of Land Management, Tourism and the Environment during project implementation.

Consultations during preparation of the environmental analysis report were carried out with producer organizations, national experts, and representatives of associations, technical services, and ministries. The environmental analysis report noted that producer organizations will need additional organizational and professional support. In June 2003 a workshop was conducted to inform the public of the project's objectives and status, to obtain participants' views and opinions, and to

formulate recommendations for addressing rural development constraints and improving project preparation.

The safeguard policy studies were disclosed in the Bank's Infoshop on January 23, 2004 and in the Bank's Burundi Country Office on January 20, 2004.

## 6. Safeguard policies

### 6.1. Safeguard policies triggered by the project.

<b>Safeguard Policies Triggered by the Project</b>	Yes	No
<u>Environmental Assessment (OP/BP/GP 4.01)</u>	[x]	[ ]
Natural Habitats ( <u>OP/BP 4.04</u> )	[ ]	[ x ]
Pest Management ( <u>OP 4.09</u> )	[x]	[ ]
Cultural Property ( <u>OPN 11.03</u> , being revised as OP 4.11)	[ ]	[ x ]
Involuntary Resettlement ( <u>OP/BP 4.12</u> )	[x ]	[ ]
Indigenous Peoples ( <u>OD 4.20</u> , being revised as OP 4.10)	[ ]	[ x ]
Forests ( <u>OP/BP 4.36</u> )	[ ]	[ x ]
Safety of Dams ( <u>OP/BP 4.37</u> )	[x]	[ ]
Projects in Disputed Areas ( <u>OP/BP/GP 7.60</u> ) <sup>15</sup>	[ ]	[ x ]
Projects on International Waterways ( <u>OP/BP/GP 7.50</u> )	[x]	[ ]

### 6.2 Safeguards screening category.

B - Partial Assessment.

### 6.3 Safeguard and environmental screening categories

B - Partial Assessment. The proposed project has been categorized as a "B/S2" on the basis of the financing of smallholder productive infrastructures and agro-processing facilities. For details, see annex 10.

## 7. Policy Exceptions and Readiness

<b>POLICY EXCEPTIONS AND READINESS</b>	<b>APPLICABILITY</b>			
Does the project require an exception from Bank policies?	Yes	<b>X</b>	No	TBD
Have exceptions been approved by Bank management?	Yes	<b>X</b>	No	TBD
Is approval for exceptions from the Board?	Yes	<b>X</b>	No	TBD
Does the project meet the regional criteria for readiness?	Yes		No	<b>X</b> TBD
Are fiduciary arrangements in place?	Yes		No	<b>X</b> TBD
Are project staff and consultants mobilized?	<b>X</b>	Yes	No	TBD
Have counterpart funds been budgeted?	Yes		No	<b>X</b> TBD
Have tender documents for the first year been prepared?	Yes		No	<b>X</b> TBD
Have arrangements for tabulating results been completed?	Yes		No	<b>X</b> TBD

If an application is still to be determined, describe current or planned efforts to make a determination.

### a. Compliance

<sup>15</sup> By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas.

## Applicability of Business Policies

Check applicable items:

- Financing of recurrent costs (**OMS 10.02**)
- Cost sharing above country 3-yr average (**OP 6.30, BP 6.30, GP 6.30**)
- Retroactive financing above normal limit (**OP 12.10, BP 12.10, GP 12.10**)
- Financial management (**OP 10.02, BP 10.02**)
- Involvement of NGOs (**GP 14.70**)

7.1 Describe the issues associated with each of the business policies checked above.



## **Annex 1: Country and Sector Background**

### **Living conditions and economy after the crisis**

Burundi, a small country of 27,830 square kilometers and 6.8 million people, suffered from severe civil crisis and internal war in the 1990s. According to the United Nations Office for the Coordination of Humanitarian Affairs, the war pushed 839,000 refugees lived into neighboring countries, mainly Tanzania, and displaced 388,000 people in different parts of Burundi. The resettlement of returning and displaced people has started but is far from complete. The war left a very chaotic social, political, and economic situation in addition to having a heavy toll on Burundi's people and causing many casualties. The conflict exacerbated the natural resources management challenge, slashing investment in the land and increasing deforestation as a result of slash and burn agriculture.

The crisis of the 1990s devastated Burundi's living conditions and economy, especially in the countryside, where 90 percent of the people live. In 2001 only 48 percent of the population had access to potable water. Between 1992 and 2002 infant mortality rates grew from 10.0 percent to 10.6 percent, malnutrition rates more than tripled from 6 percent to 20 percent, and school enrollment rates dropped from 52 percent to 37 percent. Some 28 percent of primary schools were destroyed during the crisis and 34 percent of health centers no longer operate, making social services inaccessible to the impoverished population. Between 1992 and 1998 maternal mortality ratios increased from 110 deaths per 100,000 births to 800. The rate of HIV/AIDS prevalence increased to 16.6 percent among the urban population and 7.4 percent of the rural population.

Gross national income decreased from 1992 to 2000, but it has slowly started to recover. Per capita income dropped from US\$210 to US\$100 over the same period. The Government's budget deficit ballooned from 2.4 percent to 8.7 percent of GNP. Exports coffee, tea, cotton, and other cash crops—Burundi's main foreign currency earners—fell from an average of US\$76 million in 1990–93 to US\$50 million in 2000. The economy continues to be based mostly on agriculture, which brings in more than 80 percent of export earnings.

### **Main sector issues**

*Poverty.* Burundi is one of the poorest countries in the world, with a per capita GNP of US\$100 in 2001. In 1993 the proportion of the population below the poverty level was 25 percent in rural areas and 33 percent in urban areas. These figures have since increased by 80 percent in rural areas and doubled in urban areas. The situation is worse in rural areas. Farms located in remote areas, lower production levels, less access to and use of agricultural inputs, falling market prices, pillaging of harvests and cattle, an employment downturn in the urban private sector, and increasing inflation have caused per capita income to fall significantly. From 1992 to 2000 income fell in real terms from 74,443 Burundi francs to 44,903, an average annual decrease of 5 percent.

Rural poverty has a number of dimensions. With intensive population pressures, it increases land fragmentation, with an average plot size of 0.7 hectares per household. Lack of food security and increased vulnerability to such climatic pressures as irregular rainfall further degrade the natural resource base of production.

*Impact of conflict.* Burundi was traditionally self-sufficient in food production, but the civil crisis disrupted production and caused it to lag with population growth. Looting and destruction of household goods and livestock deprived farmers of their most important income-generating potential. The distribution and marketing channels for agricultural inputs and products collapsed at

the same time. The political crisis and large number of displaced persons and refugees exacerbated the agricultural problems. The crisis was most devastating in the regions that experienced intense fighting and significant population displacement. Agricultural output declined sharply after the start of the crisis, with 1997 production levels 21 percent lower than the average volume for 1989–93 and agricultural per capita GDP down 33 percent. The political and social conflict displaced many people, leading to slash and burn activities, forest fires, and rapid deforestation.

*Low agricultural production and productivity.* Around 90 percent of Burundi's people rely on agriculture for their livelihood, and it accounts for 50 percent of GDP and more than 80 percent of export earnings. Most agricultural production is subsistence-oriented, except for such cash crops as coffee, tea, rice, sugar, and cotton that target export markets. Land fragmentation and soil degradation, combined with poor agricultural productivity, are key issues identified by local communities (the Bank's Poverty Note for Burundi, February 1999). Land fragmentation has not been compensated for by enough increases in agricultural productivity. Adverse incentives for cash crop production are an important structural problem. Production is mainly done with hand-held tools and basic technology. Fertilizer use is extremely low and plot sizes are small. And the country has reached the limit of traditional land cultivation and has little economic diversification in the rural sector.

*Land and wetland degradation.* By the 1980s the growing population, limited natural-resource base, low government investment in the smallholder sector, and an economy largely limited to agricultural employment were already causing land fragmentation and exploitation, and expansion into marginal areas. The Government's lack of research, extension services, and provision of agricultural inputs to the rural sector left agricultural households unable to increase production. Mining natural resources was the inevitable result. While the conflict exacerbated the unsustainable land use, lack of long-term investments in the land presaged it.

Overexploitation of land, smaller farms (less than half a hectare), and fewer fallow periods have led to severe land degradation. Loss of soil fertility, soil erosion, and silting of rivers are the most critical issues. Estimates of soil loss range from 4 tons per hectare a year in the east to about 18 in the center-west. The Mumirwa zone has been hardest hit, with annual soil loss as high as 100 tons per hectare. Soil erosion and siltation of the Nile and Congo basin watersheds and Lake Tanganyika have increased due soil erosion, threatening biodiversity. Heavy population pressure and population movements have led to unsustainable land use practices. Marginal lands are increasingly being cultivated, and ecologically significant lands are vulnerable to encroachment. In the northeast, dry spells are becoming a growing problem in a region where the soil is poorly suited for agriculture. Communities are less resilient to climactic variations, aggravating the poverty alleviation challenge.

Land degradation contributes to declining agricultural productivity and threatens agricultural and other biodiversity and hydrological systems that are of global significance. Burundi's flood plains and wetlands, the *marais*, are of national and international significance. Much of the border of Burundi lies within *marais* that drain into Lake Tanganyika, and the Congo and Nile watersheds. The *marais* provide essential such environmental services as flood regulation, sediment retention and control, fish production, and wildlife habitat. They are two types: high altitude, mainly in the Nile basin, above 1,700 meters in the mountain forest zone, and low and medium altitude, between 775 and 1,700 meters in altitude, located primarily in the Rusizi plains, the central plateau, the Kumoso depression, and the Congo river basin. The *delta de la Rusizi de la Reserve Naturelle de la Rusizi* in the Bujumbura Rural province is a RAMSAR site. Most of the wetlands are in the Nile basin and are important in regulating effluents into the Ruvubu river, a southern source of the Nile.

The wetlands cover some 321,000 hectares and are a major agricultural resource that constitute the remaining arable and fertile land reserves. They have been only one-quarter developed despite the growing population pressure. According to the draft environmental analysis report, (i) 240,716 hectares, 8.6 percent of the land, is covered with natural vegetation, including uncultivated swamps and savanes; (ii) 1.2 million hectares, 43.4 percent of the land, is covered with crops (food crops), excluding cultivated swamps; and (iii) 81,403 hectares, 2.9 percent of the land, is covered with cultivated swamps. While so far surface irrigation through gravitation and in the swamps has been practiced, the Ministry of Land Management, Tourism and Environment lacks the institutional capacity to determine which areas of the country are irrigable. Civil conflict and the lack of resources for investment have prevented planned use and management of swamps under production.

Marshlands and peat lands are also very important for greenhouse gases because they are the largest component of the terrestrial biological carbon pool. Degradation of these marshlands would release significant amounts of carbon and methane into the atmosphere. Through soil management and the reduction in degradation, the project would positively contribute to carbon storage and limit the greenhouse gas emissions from wetland sinks.

*Excessive reliance on coffee, tea, and cotton.* Export crops suffered a double blow from the conflict, with collapsed global commodity market prices for cotton and coffee and dramatically lower volumes of coffee and cotton production. World prices for coffee that were the lowest in a decade have posed major difficulties for the coffee sub-sector. Coffee is the most important export crop for Burundi, providing 80 percent of the country's export revenue. The volume of marketed coffee plummeted from 34,925 tons in 1990 to 20,000 tons in 1997. Cotton production also fell, from 5,475 tons in 1990 to 2,381 tons in 1997. The situation worsened because of low factor endowments, a limited domestic market to complement export-oriented crop production, and a less than favorable regulatory structure, leading to difficulties in obtaining licenses and permits. (The European Union is expected to provide support to revive these sub-sectors and improve their competitiveness.)

*Inadequate agricultural research and extension services.* A stock of technological innovations already exists and could increase small farmers' productivity. Research projects still need to be closely related to solving farmers' priority problems. The continuous generation of new technology that is necessary requires a dynamic agricultural research system with strong skills in orientation, selection, programming of priority research themes, and planning of specific research projects and their implementation. These improvements are needed to ensure that agriculture in Burundi can maintain and improve its comparative advantage on the global market, resolving the immediate smallholders' production issues, whether primarily market or subsistence-oriented. Furthermore, the extension system must be able to effectively deliver appropriate technologies to interested farmers. Production estimates for food crop are presented in the Project File.

*Poor access to agricultural finance.* Weak credit markets and poor access to financing are major constraints to agricultural development. Less than 5 percent of the people have access to credit and other financial services. There are no rural development banks, and the private commercial banks generally do not supply credit for agriculture because of the significant risk. Lack of credit is a leading cause for low use of other inputs in production, which is compounded by poorly organized and inadequate input supplies and makes access to farm inputs almost nonexistent for farmers.

*Capacity constraints.* The economic collapse and discontinuation of many public services have caused widespread social suffering, which has affected agricultural development. During the 1994–95 crisis about 500 education centers were destroyed and the student enrollment rate declined to 51 percent. The pool of qualified civil servants and technicians is limited, and the Ministry of

Agriculture and Livestock has insufficient capacity to design, implement, and monitor rural development policies and projects. Information and data on the rural sector is nearly nonexistent, and what information exists is poorly organized and difficult to access. The country's infrastructure, especially secondary and rural roads, has deteriorated, making it difficult for farmers to reach markets or export agricultural products.

### **The Government's strategy**

The Government of Burundi recognizes the following priorities in agricultural and rural development:

- Raising production and productivity and diversifying sources of income in rural areas.
- Improving the quality of services and their delivery to farmers, especially of extension, quality seed and other farm inputs, improved agricultural technologies, and rural finance.
- Improving the institutional framework for better access to markets, efficient service delivery, and appropriate policy planning and implementation, including the preparation and monitoring of investment projects and coordination of donor projects.
- Promoting sustainable land use and improving natural resource management. The government has to seek win-win options that yield increasing returns from environmentally sustainable approaches (including integrated pest and nutrient management), to proactively support improved natural resource use (wetland and dry land resource use planning, protection areas, and buffer zones), and to address the various environmental externalities<sup>16</sup> through regulatory means (protection areas) and by providing incentives for sustainable land use and protection of ecosystem services (for instance through land titling, leases, community management of natural resources).

The Government's strategy for the sector, as expressed in the IPRSP and other documents, is to promote broad-based environmentally sustainable agricultural and rural growth through a series of actions, including: (a) supporting and reintegrating displaced persons and other conflict victims into agricultural production; (b) rehabilitating and developing rural and agricultural infrastructure; (c) improving the quality of service delivery to farmers; (d) developing access to microcredit institutions; (e) improving agricultural research and extension services and seed production; (f) promoting and expanding the use of improved agricultural inputs and integrated pest management; (g) restocking animal resources; (h) increasing access to markets and removing agricultural trade barriers; (i) supporting high-value export crop production; (j) encouraging sustainable land management in degraded lands and marshes under production by supporting micro watershed management, sustainable farming approaches, integrated nutrient and pest management, natural resource use planning in protection areas and buffer zones, and community monitoring; (g) stimulating rural employment through public works programs; and (h) promoting small non-farm income-generating activities.

The Government is convinced that the private sector must be the engine of economic growth. It intends to disengage from agricultural production and privatize state enterprises. And in conjunction with the implementation of the poverty reduction strategy the Government has called on professional organizations and the private sector to take a greater role in the conceptualization and

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<sup>16</sup> Environmental impacts and outcomes, both positive and negative, as a result of project interventions and existing land use that are not assessed/included in economic analyses and in sectoral planning of the abovementioned activities.

management of development programs and strategies. The Government is pursuing legal and regulatory reforms to create a more favorable incentive structure for private enterprises and foreign investment, including revision of bankruptcy laws and labor and civil codes.

The Government is in the process of undertaking the following key macroeconomic reforms: (a) initiation of a comprehensive strategy for private sector development and for reviving the coffee and tea sub-sectors with the support of the EU through STABEX funds; (b) liberalization of the producer pricing and marketing arrangements; (c) enactment of a land law; (d) updating of the national policy and program for managing natural resources and the environment and enlisting local communities in the effort to restore and protect vulnerable ecosystems; and (e) introduction of legal and regulatory instruments for planning and management of the sector.

As a part of Burundi's participation in the UN Convention to Combat Desertification, a National Action Plan (NAP) is being drafted and is intended to outline the Government's priorities and programs to address land degradation issues in the country. The NAP makes the case clear for the need for interventions to counter the ongoing degradation of hillsides and watersheds in ecosystems that are critical to maintain the water and soil nutrient cycles. Efforts to evaluate the impact of land degradation on agro-based production and on livelihoods are being made. It is seen as vital to rehabilitate marshland and hillside farming through environmentally sustainable practices for addressing poverty and food security needs, as well as to lessen the pressure on natural resources and off-site impacts of land degradation.

The project also addresses several of the *New Partnership for Africa's Development's* (NEPAD) objectives. NEPAD explicitly calls for greater attention by multilateral development institutions to the agricultural sector and rural development. It specifically targets the issue of land degradation and identifies it as a priority for intervention noting that 'initial interventions are envisaged to rehabilitate degraded land and to address the factors that lead to such degradation'. This project would be such an intervention. Implementation of practices that lead to the conservation of wetlands is also considered critical by the NEPAD and this project would seek to address the land use factors that threaten marsh and swamp ecosystems.

## Annex 2: Major Related Projects Financed by the Bank and/or other Agencies

### MAJOR RELATED PROJECTS FINANCED BY THE BANK AND/OR OTHER AGENCIES

Sector issue addressed	Project	Latest Supervision (PSR) Ratings	
		Implement. Progress (IP)	Dev. Objective (DO)
<b>World Bank / IDA</b>			
Budgetary Support	Emergency Economic Rehabilitation Credit (EERC)	S	S
Economic rehabilitation including agriculture & environment –	Economic Rehabilitation Credit (ERC) I – ongoing See – appendix 2	S	S
Agricultural Services	Agricultural Services Sector Project in Burundi (Cr. 2024-BU) - closed	S	S
Agricultural Development	Burundi- Muyinga Agricultural Development Project (CR. 1857-BU) closed	S	S
Coffee Sector Development	Coffee Sector Project (Cr. 2123-BU) closed	S	S
Transport	Burundi – Transport Sector -closed	S	S
Employment	Public Works and Employment Creation (Cr. 3460-BU) ongoing	S	S
Poverty alleviation	Social Action Project (BURSAP I) ongoing	S	S
	Social Action Project (BURSAP II) to be negotiated		
Road Rehabilitation	Burundi – Road Sector Development Project – to be negotiated -		
<b>Other Agencies</b>			
Poverty alleviation	African Development Bank (executed through Twintezimbere)		
Poverty alleviation / Agriculture / Food Security	Rural Sector Rehabilitation & Development Program (PRDMR) – IFAD		
Agricultural/Environmental Development	Natural resource Management Program (PGRRR) –Ruygi – IFAD – closed		
Agriculture / Sylviculture / Livestock integration	Bututsi Province Agro-Sylvi Cultural & Livestock Development Project – PDASP-Bututsi – IFAD / ADB – ongoing		
Seed production capacity development & Support to ISABU	Seed Production Project – Strengthening of ISABU’s seed production – CTB - N/A		
Infrastructure & seed production rehabilitation, cattle restocking	Burundi rehabilitation Project – PREBU – EU – ongoing		
Food production support	Food Crops Support Project – PAPV – EU - ongoing		
Emergency Export Crop Activities (coffee, tea, fruit	Emergency Stabex Funds Program – Stabex – EU - ongoing		

& flowers, cotton)			
Equipment / infrastructure Rehabilitation	Coffee, tea & cotton infrastructure Rehabilitation Program – N/A - EU		
Réinsertion des Sinistrés	Appui à la réinsertion des sinistrés – Stabex – EU - ongoing		
Sécurisation systèmes de production & augmentation apports protéiques	Contribution des Filières Animales à la Sécurité Alimentaire (CFASA - FMFA		
Agriculture – Livestock – Capacity Building -	Projet d’Appui Institutionnel au Secteur Agricole – PAISAB – negotiated -		
Food security & food improvement contribution	Food Security & NRM Support Project - PASAGE – UNDP -		
Rural Development, reinsertion des sinistrés.	EDF 8 <sup>th</sup> & 9 <sup>th</sup> – to be allocated -		
Food production & productivity increase	Food Security Specific Program – PSSA - FAO		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

### Specific information about selected interventions:

IFAD, through the PRDMR and PGRRR, has concentrated its interventions on rehabilitation of the Ministry of Agriculture and Livestock and its provincial offices in four provinces, on improvement of food crops production and efficiency of agricultural labor, and on conservation and improvement of soil fertility. The European Union, besides the actions carried out under PREBU in the whole country, has undertaken emergency program in three provinces to support export crops (E 3.3 million) and implementation of a food crops program PAPV (E 3.25) covering two collines in 10 provinces, and intends to follow through with its commitment to rehabilitate the export crop sub-sectors with E 20 million. FAO-supported program PSSA will improve marches and lowlands in five provinces. French assistance has concentrated on improving the production systems and increasing protein production mainly in two provinces. Belgian Cooperation has provided support for rehabilitation of seed sub-sector and for ISABU.







### Annex 3: Results Framework and Monitoring

#### 1. Results framework

The development objective of the proposed PRASAB is to restore the productive capacity in the rural areas through production and sustainable land management investments and capacity building in POs and LCs. The beneficiaries will also include war-distressed returnees and internally displaced persons. Because of integration of an environmental element, the project will have two lines of outcome: it will directly help to reduce poverty and improve food security by revitalizing and diversifying agricultural production, contributing to improving rural incomes and increasing productivity, and it will address land degradation using GEF funds to supplement IDA financing and strive for incremental benefits accruing from sustainable land management in specific areas within significant ecosystems such as watersheds and wetlands.

Its strategy includes the promotion of producer organizations, improving agricultural services to farmers, promoting sustainable agricultural and land use practices through community-driven NRM related subprojects. GEF resources will be targeted towards removing the barriers to sustainable land management practices and to developing agricultural methods that help in restoring degraded soil systems and maintaining agro-biodiversity and other ecosystem services.

<b>PDO</b>	<b>Outcome Indicators</b>	<b>Use of Results Information</b>
PDO is to restore the productive capacity in the rural areas through production and sustainable land management investments and capacity building in POs and LCs. The beneficiaries will also include war-distressed returnees and internally displaced persons.	<ol style="list-style-type: none"> <li>1. At least 75 percent of the benefiting POs and LCs continue to function for the benefit of their members and follow the norms of good environmental and sustainable land management</li> <li>2. At least 80 percent of returning refugees and displaced families having received project-financed kits have returned to normal agricultural life</li> </ol>	<p>1-2. PY1-PY2: verify the financial results and follow-on plans of the benefiting POs.</p> <p>PY3-PY5: concentrate on improvement of the strategy and replication of successful models in new communes and provinces.</p>
<b>Intermediate Results</b> (One per component)	<b>Results Indicators for Each Subcomponent</b>	<b>Use of Outcome Monitoring</b>
Component 1: Substantive invigoration of rural development in project areas has taken place in form of sustainable, productive investments in the agricultural sector, initiated and implemented by POs and LCs, and based on agro-ecological zoning principles, and by re-inserting returning refugees and IDP into normal agricultural life	<ul style="list-style-type: none"> <li>- The project has supported at least 4,000 subprojects</li> <li>- At least 30 percent of the subprojects initiated and managed by women</li> <li>- At least 50 percent of subprojects financed have allowed introducing sustainable land management measures of at least 0,10 ha of agricultural holdings impacted by subprojects.</li> <li>- The land area where SLM is practiced, is at least 7.000 ha by project mid-term and by project end at least 18.000 ha.</li> <li>- At least 20,000 returning refugees and IDP have received project support</li> </ul>	<p>PY1-PY2. Verify that by mid-term at least 75 percent of the subprojects are financially viable and have implemented the recommended SLM actions. .</p> <p>PY3-PY5: Low level of PO success and subproject management tools may indicate a need to eliminate some types of POs from eligible beneficiaries.</p>

<p>Component 2: Key services to POs and farmers by the MAE, MATET, LIAs and private sector service providers have substantially expanded.</p>	<ul style="list-style-type: none"> <li>- By project year 2, at least 80 percent of the annual training plan for POs, LCs, and LIA agreed with the Bank has been satisfactorily implemented</li> <li>- By project year 2, at least 80 percent of subprojects submitted to Selection Committees have been approved and implemented</li> <li>- By project year- 2 at least 80 percent of POs and LCs interested in starting SLM subprojects have access to LIA services</li> <li>- By project mid-term, at least 80 percent of the annual plans for SLM capacity building agreed upon with the World Bank for MAE and MATET are implemented satisfactorily, including specific support to the National Program for Erosion Control.</li> <li>- By project year- 1, the land monitoring plan, covering periodic evaluations of land conditions at representative sites in the five agro-ecological zones, is prepared and underway.</li> <li>- By Project end, a Land Use Plan(Schema Directeur d'Aménagement du Territoire) is put in place in ten Provinces.</li> <li>- By Project mid-term, at least 15 applied or adaptive research technologies have been tested and adapted and by project end, at least 35 have been tested and adapted</li> <li>- By project end, at least 15 new technologies disseminated to farmers in project areas by public and private-sector agencies.</li> </ul>	<p>PY1-PY2: Determine the message and service effectiveness and outreach among the members of the benefiting POs.</p> <p>PY3-PY5: Check annually the output of the assisted MAE and MATET departments and the use of LIAs and SPs, and suggest corrective actions if needed.</p>
<p>Component 3: Efficient Project Coordination and Management.</p>	<p>By project mid-term, at least 80 per cent of approved contracts have been implemented satisfactory and 90 per cent by project end.</p>	

## 2. Arrangements for results monitoring

There are no public or private sources of information and data that will directly help monitor project operations or measure the achievement of its results. Therefore, the project will need to establish its own monitoring and evaluation structure.

The monitoring and evaluation functions will be an integrated part of project management arrangements. The NPCMU will have a monitoring and evaluation unit led by a qualified M&E specialist and an information technician in its staff. For the fieldwork, an M&E assistant will be recruited for each of the three IPCMU. In addition, the staff of the NPCMU and IPCMUs will have specific tasks to provide information and data on their specialized areas. Recruitment of qualified staff for the unit will be crucial for building the foundation of an effective M&E system for the project. The unit will provide a direct link to the National Project Coordinator and the Technical Committee, thus facilitating efficient implementation of planned activities and early actions on the basis of the monitoring output and evaluation studies. The M&E system allows to assess the success of the subprojects and other interventions; to bring the lessons learned to bear on the design of new activities of the planning cycle, and to disseminate best practice in integrated ecosystem management.

The IPCMU in collaboration with LIAs, will provide periodic information and data on POs, but for collecting output data from the farmers, the project will need to establish a network of farms to be followed, besides arranging sample surveys every two years and at the end of the project.

Most of the monitoring data will be obtained from a computer-based management information system (MIS) to be installed at NPCMU and its inter-provincial offices. The preparation of the system, including installation of suitable software, will be contracted out on a competitive basis, and the system shall be ready to operate before project effectiveness.

A comprehensive baseline study has been prepared to establish adequate data on the start-up situation in order to set appropriate targets and to allow the comparison of key indicators at regular intervals. Such. The list of indicators shown above, to be extended according to the needs of the project management, as well as their intermediate and final targets, will be consolidated in a monitoring and evaluation (M&E) manual, which will be completed before negotiations. Ultimately, the magnitude of both the national and global benefits of the Project is determined by the interaction between ecological and socio-economic processes. The M&E system of the project will be directly linked to that of the baseline program (earlier programs or projects). This link will include the sharing of data, quality control standards, and design of data collection methodologies and studies.

To measure the achievement of project development objective, the project will organize, every two years and at the end of the project period, evaluation studies with the help of competent outside agencies. The monitoring and evaluation results will be discussed at the meetings of the Steering Committee, the Technical Committee, and the Provincial Development Committees. Local implementation agencies (LIAs), service providers (SPs) and producers and local communities will be included in the monitoring and review of project outputs and outcomes through workshops and separate studies.

The following table provides information on annual target values and arrangements for data collection and reporting.



-At least 80 percent of the annual training plans for OPs, LCs, and LIA agreed with the Bank have been satisfactorily implemented	Annual training plan	--	80%	80%	80%	80%	80%	80%	80%	Annual	IPCMMU reports, summarized by NPCMMU	NPCMMU
- At least 80 percent of subprojects submitted to Selection Committees have been approved and implemented	As the subprojects are presented into the program	--	80%	80%	80%	80%	80%	80%	80%	Annual	IPCMMU reports	LIAs
- At least 75 percent of POs (with legal recognition) and LCs in project zones interested in starting subprojects have access to LIA services in the 4 <sup>th</sup> year	POs and LCs showing interest	20%	30%	50%	75%	75%	75%	75%	75%	Annual	M&E surveys	IPCMMUs
Subcomponent 2 (b):		--	80%	80%	80%	80%	80%	80%	80%	Annual		MAE and MATET
- At least 80 percent of the annual plans for capacity building agreed upon with the World Bank for MAE and MATET are implemented satisfactorily	Annual capacity building plan										MAE and MATET reports	
- The environmental monitoring plan is prepared and implemented by the second year	N/A		100 %	100 %	100 %	100 %	100 %	100 %	100 %	Biannual		MATET
- The Directive Territorial Improvement Scheme (le Schema Directeur d'Aménagement du Territoire) is put in place in project provinces	N/A		2/10	5/10	10/10	10/10	10/10	10/10	10/10	Biannual	MATET reports; ICR	MATET
- At least 35 applied or adaptive research technologies have been tested and adapted,	N/A	10		25	35					Annual starting the 3 <sup>rd</sup> year	ISABU reports	ISABU
- At least 15 new technologies disseminated to farmers in project areas by public and private-sector agencies.			5	15	20						MAE, M&E surveys	MAE, M&E staff of PRASAB to verify by sampling
Component 3: -At least 800 percent of the contracts signed by NPCMMU with LIAs and	As contracts have been signed	80%	80%	80%	80%	80%	80%	80%	80%	Annual	SPN review of contracts	NPCMMU, World Bank SPN missions

<p>others have been implemented satisfactorily  - All quarterly and annual reports and annual audits have been submitted at the deadlines</p>	<p>Five reports</p>	<p>100 %</p>	<p>100 %</p>	<p>100 %</p>	<p>100 %</p>	<p>100 %</p>	<p>100 %</p>	<p>Quarters, Annual</p>	<p>Reports</p>	<p>NPCMU</p>
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## Appendix 1

### Sustainable Land Management Program - Project Design Summary

Hierarchy of Objectives	Key Performance Indicators	Monitoring and Evaluation	Critical Assumptions
<p><b>Sector related CAS Goal:</b></p> <p>A CAS is in preparation but the Transitional Support Strategy (TSS) forms the basis of the Bank's current strategy</p> <p>Revitalize of the rural economy to increase incomes, reduce poverty, provide livelihoods for returnees, reinforce national stability and strengthen the sustainable management of natural resources</p>	<p><b>Sector Indicators:</b></p> <ul style="list-style-type: none"> <li>• Per Capita GDP</li> <li>• Occurrence of disease, Infant and child mortality</li> <li>• Percentage of poor and vulnerable population</li> <li>• Necessary reforms of agriculture sector policy are done</li> <li>• Increase of viable producers</li> <li>• Higher average household incomes among beneficiary farmers or lower share of population under the poverty line among beneficiary farmers</li> </ul>	<p><b>Sector/Country Reports:</b></p> <ul style="list-style-type: none"> <li>• National statistics</li> <li>• National budget</li> <li>• Poverty studies and surveys</li> <li>• UNDP reports</li> <li>• Sector reports</li> </ul>	<p><b>(from Goal to Bank Missions)</b></p> <ul style="list-style-type: none"> <li>• Government pursues policies of political and macroeconomic stability and sustains the liberalization of the domestic economy</li> <li>• Peace and stability maintained</li> </ul>
Hierarchy of Objectives	Key Performance Indicators	Monitoring and Evaluation	Critical Assumptions
<p><b>Program Purpose:</b></p> <p>Increase incomes, employment, access to agricultural services and credit, basic infrastructure, Improve smallholder food security through increases in production and productivity Strengthen participatory approaches and increase capacity for improved natural resource and sustainable land management</p>	<p><b>End of Program Indicators:</b></p> <ul style="list-style-type: none"> <li>• Number of producers with access to inputs and services</li> <li>• Number of micro-projects implemented</li> <li>• Number of local groups and communities active in sustainable land management</li> <li>• Increase in household expenditures and savings</li> <li>• Increase in productivity</li> </ul>	<p><b>Means of verification:</b></p> <ul style="list-style-type: none"> <li>• Reports based on updates of the baseline rural household survey at the end of the project</li> <li>• Beneficiary assessments and feedback surveys</li> <li>• Sector reports</li> <li>• Mid-term and final project evaluations</li> </ul>	<p><b>(from Purpose to Goal)</b></p> <ul style="list-style-type: none"> <li>• Full collaboration of all relevant implementing agencies</li> <li>• Timely delivery of inputs and implementation</li> </ul>



<p><b>GEF Operational Program Objective:</b></p> <p>To mitigate the causes and negative impacts of land degradation through sustainable land management practices, thereby contributing to maintenance of critical ecosystem functions and structure  GEF assistance would focus on funding the incremental costs of accelerating locally driven actions on sustainable land management to maintain and restore agro-ecosystems, stabilize sediment storage and release in water bodies, and reduce carbon dioxide emission, improve carbon sequestration  GEF support would be consistent with the work program priorities of the UNCCD</p>	<ul style="list-style-type: none"> <li>• Preservation or restoration of the structure and functional integrity of ecosystems as measured by a set of applicable SLM indicators (including soil erosion, siltation, change in vegetative cover, monitoring of encroachment/production in fragile lands and key biodiversity in representative sites, see annex 12A)</li> <li>• Institutional and human resource capacity is strengthened to improve sustainable land management planning and implementation</li> <li>• Policy and regulatory framework is strengthened to facilitate wider adoption of sustainable land management practices</li> </ul>	<ul style="list-style-type: none"> <li>• Project MIS (Environmental monitoring framework to be in place including assessment of land conditions at representative sites by ecological zone)</li> <li>• Environment database and GIS data</li> <li>• Supervision reports</li> <li>• project evaluation (mid term and final)</li> </ul>	<ul style="list-style-type: none"> <li>• Strong country commitment to address land degradation</li> <li>• Adoption of integrated and cross-sectoral policies and approaches to sustainable land management.</li> <li>• Coordination of implementation and channels of information are between the three levels (national, provincial and community) is established</li> </ul>
<p><b>Project Development Objective:</b></p> <p>The development objective of the proposed PRASAB is to help farmers in the project areas realize benefits from production and sustainable land management investments through capacity building Producer Organizations (POs) and Local</p>	<p><b>Outcome/Impact Indicators:</b></p> <ul style="list-style-type: none"> <li>• Number of subprojects and smallholder families to benefit from the production and sustainable land management investments</li> <li>• Number of</li> </ul>	<p><b>Means of Verification:</b></p> <ul style="list-style-type: none"> <li>• Project MIS</li> <li>• Environmental surveys, maps</li> <li>• Field inspection and surveys</li> <li>• Field reports</li> <li>• Bank disbursement records</li> <li>• Audit reports</li> <li>• Quarterly project</li> </ul>	<p><b>(from Objective to Purpose)</b></p> <ul style="list-style-type: none"> <li>• National government remains committed to the decentralization of project decision making and strengthening of the POs</li> <li>• Local communes, POs and regional authorities are responsive to the</li> </ul>

<p>Communities (LC), already existing, and with the help of new skills, information and appropriate technologies. The beneficiaries will also include war-distressed returnees and internally displaced people.</p> <p>GEF financing will aim to realize incremental benefits, in specific areas in each of the five agro-ecological zones of the country, on the basis of community-directed sub-projects addressing land degradation, promoting sustainable agricultural systems and improving management of wetlands</p>	<p>displaced people benefiting from start-up kits and returning to agriculture</p> <ul style="list-style-type: none"> <li>• Percentage of the benefiting POs and LCs that are making profitable investments with the help of the project</li> <li>• Improvement in productivity through increases in yields of major food crops</li> <li>• Area where appropriately SLM technologies are adopted, including indigenous and local knowledge</li> <li>• Area where agro-ecological packages have been adopted</li> <li>• SLM indicators (soil erosion, siltation, change in vegetative cover, encroachments in fragile areas, biodiversity) show stability or improvements as monitored in representative sites</li> <li>• Greater awareness of SLM activities and issues among producers (survey responses)</li> </ul>	<p>progress reports</p> <ul style="list-style-type: none"> <li>• Supervision reports</li> <li>• Evaluation reports</li> </ul>	<p>objectives and participatory principles of the PRASAB</p> <ul style="list-style-type: none"> <li>• Development plans and sub-project proposals are reviewed and approved on a timely basis.</li> <li>• Funds are available on a timely basis</li> </ul>
<p><b>Output from each Component:</b></p> <p><b>Component 1 Support for productive and sustainable land management investments</b></p> <p>Demand-driven micro-projects in (i) seed multiplication,</p>	<p><b>Output Indicators:</b></p> <ul style="list-style-type: none"> <li>• Number of sub-projects</li> </ul>	<p><b>Means of verification:</b></p> <ul style="list-style-type: none"> <li>• Quarterly project progress reports</li> </ul>	<p><b>(from Outputs to Objectives)</b></p> <ul style="list-style-type: none"> <li>• Local communes, POs and regional authorities</li> </ul>

<p>private small scale irrigated horticulture and vegetables production, promotion of high-capacity, low-cost irrigation infrastructure, tree crops in small scale plantations (fruits, palm), and agro-processing (sugar, palm-oil, essential oils); (ii) rehabilitation of livestock sector by scaling up FAO pilot “Chaine de solidarite“ and artificial insemination activities; (iii) traditional cash crops production and processing (tea, coffee, and cotton), including shade grown varieties; (iv) watershed management and soil management practices that respond to the specific needs of each agro-ecological zone, including agro-sylvo-pastoral approaches such as the FAO initiated “Chaine de solidarite“, conservation tillage, conservation of native species, agro-forestry, community woodlots, and improved runoff management (v) non-farm income generating activities (handicrafts, agricultural tools repair)</p> <p>Technical assistance provided for the preparation and implementation of subprojects, to improve the quality of service delivery, input supply and training services, in particular as related to sustainable land management practices</p>	<p>incorporating sustainable land</p> <ul style="list-style-type: none"> <li>• Number of agro-ecological packages introduced</li> <li>• Number and quality of services provided</li> <li>• Number of producers with increased access to better services</li> <li>• Environmental monitoring is functional</li> <li>• SLM field based research implemented</li> <li>• Number of technical staff trained in SLM and providing services</li> </ul>	<ul style="list-style-type: none"> <li>• Supervision reports</li> <li>• Project MIS</li> <li>• Field inspection and survey reports</li> <li>• Environment monitoring</li> </ul>	<p>are responsive to the decentralized and participatory nature of the operation</p> <ul style="list-style-type: none"> <li>• Plans include a long-term planning horizon perspective</li> <li>• Development plans and sub-project proposals are conform to local priorities, are truly demand driven and are coordinated with ongoing related activities</li> <li>• Technical assistance and support services are timely, related directly to needs identified in micro-projects and include simple and practical applications</li> <li>• NPCMU and IPCMUs actively encourage the adoption of SLM approaches in PRASAB supported activities. (SLM specialist acts as a champion of SLM)</li> <li>• SLM is included as a defined element of larger sub-projects (over \$5000)</li> </ul>
<p><b>Component 2. Support for Capacity Building, targeted research and Institutional Strengthening</b></p> <p>Enhanced access to information and capacity of</p>	<ul style="list-style-type: none"> <li>• Capacity gaps identified and</li> </ul>	<ul style="list-style-type: none"> <li>• Project MIS</li> </ul>	<ul style="list-style-type: none"> <li>• Research includes technologies that</li> </ul>

<p>producer organizations</p> <p>Strengthened local community participation and renewal of local networks and cooperative relationships Capacity among communities developed and strengthened with GEF resources through CDCs to propose and implement sustainable land management activities and to disseminate good management practices.</p> <p>Improved capacity of LIAs to provide services to POs and LCs by addressing gaps in organizational, technical, financial management, through training, workshops and study tours.</p> <p>Support for data collection and monitoring at the decentralized level as well as to establish effective management systems for monitoring micro-projects</p> <p>GEF resources to support institutional strengthening through training seminars and workshops, in the area of sustainable land management</p> <p>Institutional support and advisory activities to strengthen national level land and natural resources management and the related legal and policy framework including a national land use and management plan (<i>Elaboration d'un Schema Directeur d'Amenagement du Terroir</i>).</p> <p>Establishment of national environmental quality standards/norms Focused short-term (two to</p>	<p>Training plans developed</p> <ul style="list-style-type: none"> <li>• Training plans at local, provincial and national levels implemented</li> <li>• Numbers of people trained and certified on active duty match training plans at all three levels: Local – POs and communities (CDCs) Regional - LIAs – DPAEs, NGOs, private sector National - Institutions – MINAGRI, MINATE, research centers, other key agencies</li> <li>• The Ministry departments dealing with land management policy, regulatory, program planning, and monitoring are capable of 1) producing annual and long-term plans and budgets, 2) to plan agricultural and natural resource management projects, and 3) to monitor rural development and land management indicators</li> <li>• Key staff equipped and trained to support sustainable land management and improved watershed and wetlands management by mid-term</li> <li>• SLM database and</li> </ul>	<ul style="list-style-type: none"> <li>• Field inspection and feedback surveys</li> <li>• Quarterly project progress reports</li> <li>• Environmental surveys and analysis</li> <li>• Reviews and audits</li> <li>• Bank disbursement records</li> <li>• Quarterly project progress reports</li> <li>• Supervision reports</li> <li>• Evaluation report</li> </ul> <p>PY1-PY2: Determine the message effectiveness and reach among the members of the benefiting POs and LCs</p> <p>PY3-PY5: Check annually the output of the assisted MAL departments and the use of SPs, and suggest corrective actions if needed.</p>	<p>scientifically test and customize native species and indigenous knowledge along with new methods that are responsive to local needs, which are then disseminated in practical terms to the farmers</p> <ul style="list-style-type: none"> <li>• National government remains committed to the decentralization of project decision making and strengthening of the POs</li> <li>• A capacity assessment of LIAs will be conducted by NPCMU prior to negotiation and a training plan will be developed to address gaps in organizational, technical, financial management, and business skills through training, workshops and study tours.</li> <li>• Close coordination between MINAGRI, MINATE and other related agencies regarding project activities with focus on sustainable land management</li> <li>• Ministries are committed to the decentralization of project decision making and to the need for establishing sustainable land management to control land degradation and protect the productive wetlands.</li> <li>• Reports received by the Ministries are reviewed and responded to in a timely manner</li> </ul>
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<p>three years) applied research aimed at finding appropriate solutions to constraints to agricultural productivity.</p> <p>Targeted applied research, supported by GEF, on environmentally sustainable land management approaches including integrated conservation farming techniques, improved water management methods, , integrated nutrient management and soil conservation as well as the monitoring of ecosystem health</p> <p>Dissemination of knowledge through training and field demonstration through the LIAs</p> <p>Annual workshop for progress monitoring, training and consultations with the stakeholders</p>	<p>monitoring framework and program developed and periodic evaluations of land conditions (degradation related) at representative sites are undertaken</p> <ul style="list-style-type: none"> <li>• Completion of a draft national land use management plan by fourth year</li> <li>• Three SLM related targeted research projects completed</li> <li>• Center for Environmental Information functional with accessible and updated information on environmental indicators (project MIS to link to center)</li> <li>• Office and research infrastructure adequate to project activities are procured and distributed</li> </ul>		
<p><b>Component 3. Support to Project Management and Monitoring</b></p> <p>Management of the project and the monitoring and evaluation of its activities by a National Project Coordination and Monitoring Unit (NPCMU) located in the Ministry of Agriculture</p> <p>Coordination and management of SLM activities with MINATE and provincial MPUs</p> <p>Measurement of progress in SLM activities and the</p>	<ul style="list-style-type: none"> <li>• Existence of qualified staff mobilized, with defined performance goals</li> <li>• Work programs defined and updated regularly</li> <li>• Office and transport infrastructure adequate to project activities are procured and distributed</li> </ul>	<ul style="list-style-type: none"> <li>• Project MIS including provincial MPU reports</li> <li>• Field inspection and surveys</li> <li>• Environmental surveys and analysis</li> <li>• Audits</li> <li>• Quarterly project progress reports</li> <li>• Annual performance reviews</li> <li>• Supervision reports</li> <li>• Evaluation report</li> </ul>	<ul style="list-style-type: none"> <li>• The NPCMU is able to attract: the numbers of qualified staff needed to coordinate activities in all regions; the numbers of NGOs and private sector associations with adequate diversity of skills to support the program’s activities in all regions</li> <li>• Enhanced focus on SLM related objectives is ensured</li> </ul>

<p>tracking of its implementation</p> <p>Additional resources to be provided for training, workshops, studies, and study tours</p>	<ul style="list-style-type: none"> <li>• Training plan implemented</li> </ul>		<ul style="list-style-type: none"> <li>• Coordination with provincial units is strong</li> </ul>
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## **Annex 4: Detailed Project Description**

### **1. Project approach and strategy**

PRASAB would contribute to the Government's strategic goal of restoring rural people's productive capacity and livelihoods through economically and ecologically sustainable investments. The Project would address the decline in rural development caused by the 1990s civil war by financing productivity- and income-raising subprojects initiated by producer organizations and local communities for male and female farmers and by promoting the institutional and technical capacities of producer organizations, government institutions, and civil society organizations.

GEF grant-financed activities would realize incremental benefits, in specific areas, from community-directed subprojects addressing land degradation, promoting sustainable agricultural systems, and minimizing the loss of wetlands through an integrated micro-watershed approach and through related research and pilot programs, capacity building, and institutional strengthening. The project would seek "win-win" solutions to enhance the ecological and economic value of land use and would help lay the groundwork for long-term sustainable land management by incrementally enhancing the institutional and technical capacities of producer organizations, local communities, NGOs, private operators, and government institutions.

PRASAB activities would support existing strategies and policies to revive the rural sector and would complement those financed by other donors and the Government.

Because the rural sector is so impoverished from the civil disturbances of the last decade, the funds for producer organizations' and local communities' productive investments would come from one-time grants of up to 95 percent of the investment budget, with a 5 percent upfront contribution in cash or kind.

The project has specific measures to (a) improve smallholder farmers' food security by increasing agricultural and livestock productivity in an environmentally sustainable manner, (b) increase rural incomes and thus reduce poverty levels, and (c) reduce land degradation and enhance natural resource management in specific areas. Another major component supports local capacity building for research at established institutions and addresses capacity building at the Ministry of Agriculture and Livestock and the Ministry of Land Management, Tourism, and Environment.

The project would support community-implemented plans and investments with incremental GEF financing for sustainable farming and agro-forestry with local species and micro-watershed management, including soil stabilization and water conservation. The project would also develop a sound incentive framework and regulatory mechanisms for sustainable land and natural resources use, including a national land management plan, information and monitoring services, public awareness of available options and their benefits, and capacity building for implementing activities.

The project would address land degradation in watershed areas in an integrated manner, maintaining the hydrological cycles important to trans-boundary resources. The focus in wetlands would be on improving the sustainability of production methods in areas already under agricultural production and protecting ecosystem services. The project would mitigate

harmful environment impacts from program activities and help to minimize agrochemical runoff.

## **2. Project components**

The project has three main components:

1. Support for production and sustainable land management investments.
2. Support for capacity building and institutional strengthening.
3. Support for project coordination and management.

### **Component 1. Support for production and sustainable land management investments.**

US\$30.06 million (US\$27.06 million plus GEF increment US\$3.0 million)

This component aims to restart productive agricultural investments in the agricultural sector and address land degradation by funding small subprojects initiated by producer organizations and local communities.

*Subcomponent 1(a). Productive and sustainable land management Investments (US\$17.06 million plus GEF US\$3.0 million)*

The subprojects include infrastructure investment and related extension activities, as well as other extension activities that may not be directly related to these investments but that are well targeted and contribute the project's objectives. The project would finance subprojects initiated by producer organizations and local communities through a participative process. The types of subprojects may include (i) providing selected planting material, bean floating tanks, and scales for coffee producers (in Ngozi, Kirundo, and Muyinga), cooling tanks and generators for milk producer groups (in Mwaro, Muramvya, Ngozi, and Kirundo), artisanal crushing units for sunflower seeds (in Kirundo) and soya seeds (in Gitega) and improved planting materials, selected palm tree plants and associated cover plants (pueraria) and small equipment for palm producer organizations around the Rumongere industrial plant (in Bururi and Makamba), equipment for producer organization nurseries (coffee, palm trees, food crops), modern beehives and beekeeping equipment such as extractors and helmets (in Kirundo, Ngozi, and Bubanza), and small-scale irrigated horticulture and low-cost irrigation equipment; (ii) rehabilitating the livestock sector by scaling up the FAO's "solidarity chains" pilot program and artificial insemination activities (in Muyinga and Ngozi); (iii) creating non-farm income-generating activities (handicrafts, repair facilities of agricultural tools, brick and tile-making, carpentry, tailoring); and (iv) developing vegetable and foodcrop production in improved swamps and along the canal in Kajeke (Bubanza). GEF resources would provide incremental financing for sustainable land management components of these investments according to the criteria in the Project Implementation Manual and from OP15 where needed and for (v) improving microwatershed management, soil management practices such as conservation tillage, conservation of native species, renewal of degraded hillsides and pastures through agroforestry, community woodlots, and ecologically sound terraces, and sustainable land and water management. Some of the activities supported are the construction of windbreaks, grassed waterways, riparian buffer zones, crop cover, and filter strips to reduce water and wind erosion.

The main beneficiaries of productive investments would be producer organizations and local communities. These organizations bring together agricultural or livestock producers to increase their incomes through joint action on production, processing, and marketing of



agricultural or livestock products. Financing would be grants, with a 5 percent upfront beneficiary contribution (in cash or kind).

Producer organizations and local communities benefiting from PRASAB are expected to have implemented about 4,000 subprojects affecting some 80,000 to 100,000 families by the end of the project. At least 75 percent of the first investment subprojects should be considered profitable by the participants and have their maintenance secured. At least 75 percent of the benefiting producer organizations should continue to function for their members.

The subproject details to be supported with project funds would not be determined in advance because of the demand-driven approach of PRASAB. Instead, producer organizations and local communities would prioritize critical areas for investment and would depend primarily on locally available technologies and solutions and traditional methods vetted and augmented by scientific knowledge. Producer groups have at least 10 members and include cooperatives, associations, groups of farmers or livestock breeders and non-farm producer organizations. Investment decisions would be based on producer organizations potential for sustainability. Additionally, to conform with the project concept, the approved investment requests and supported activities should (a) deal with a variety of rural activities, (b) use the identified potential of each natural region to the best advantage, and (c) take into account the assistance already provided by the European Commission, IFAD, French and Belgian development cooperation agencies, and other donors, complementing their support and avoiding overlap. The project would cover at least 10 of 16 provinces (Kirundo, Ngozi, Muyinga and Cankuzo provinces in the northeast; Makamba, Rutana, and Bururi<sup>17</sup> provinces in the south; and Bubanza, Muramvya, and Mwaro provinces in the west). Implementation is expected to gradually expand capacities and speed up as the provinces and communities meet the eligibility requirements. The selection criteria and a list on non-eligible investments, as well as the conditions and mechanisms for preparation, submission, appraisal, and implementation arrangements for subprojects, are detailed in the Project Implementation Manual.

In practice, the versatility of investments are expected to include such small water management schemes as irrigation schemes, ponds and dams, hydroagricultural retention pools, hillside water retention structures, and pastoral wells. They would also include rehabilitation and improvement of local stores and small agroprocessing infrastructure and investments to increase the production and marketing of existing and new agricultural and livestock products. The criteria for approving subprojects are detailed in the Project Implementation Manual.

This subcomponent would also support technical assistance for preparing and implementing subprojects to increase productivity of the existing farming systems, improve the quality of service delivery (including input supply and training services), and increase farmers' access to high-quality seeds and planting material. The NPCMU would contract out these services to competent international and local NGOs, community groups, consulting firms, cooperatives, and producers' apex organizations, here called local implementing agencies, and if they are not available, to provincial agriculture and livestock departments. During appraisal, the Government agreed that provincial agriculture and livestock departments would operate in the provinces of Bubanza, Makamba, Muramvya, and Mwaro. Local implementing agencies would also provide information on project activities and processes (obtaining funds, reporting) to the groups. At the local level, service providers would help producer

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<sup>17</sup> Bururi province will be shared by PRASAB and the planned IFAD TPCRSP.

organizations and local communities with limited capacity to implement their subprojects if necessary. (The subproject would allocated up to 10 percent of project costs for subproject planning and implementation assistance).

The delivery of extension should ensure that the provided technologies are locally applicable and include customized approaches for rehabilitating degraded lands, conserving biodiversity, and improving the sustainability of land use in marshlands currently under agricultural production. Activities to effectively promote the economic interests and participation of producer organizations and local communities in the project include (i) building awareness for eligible subprojects, including sustainable land management grants, and enabling local communities and producer organizations to identify, prepare, and implement them with technical service providers when necessary; (ii) ensuring representation or local communities and producer organizations in the project's steering committees and decision-making processes; and (iii) strengthening the local communities' capacities to use simple planning tools, manage natural resources, apply improved and sustainable farming methods, and use indigenous and local knowledge and native species.

The process of applying for and disbursing funds under this subcomponent is detailed in annex 6. To facilitate rapid implementation of the productive and sustainable land management investments, the selected local implementing agencies in the provinces would have to finalize the comprehensive inventory of potential producer organizations and local communities before appraisal with information on the domicile, legal form, administrative structure, current and past activities, and experience of the listed producer organizations and the number of members, mode of representation, and other factors. The producer organizations and local communities assisted by this subcomponent would be selected from those expressing interest in project activities and based on their likely sustainability, the relevance of their objectives, and their past activities in relation to PRASAB goals. Sustainability is difficult to assess in advance, but such factors as a producer organization's date of establishment, its past performance, endorsement of local administrators, cohesion of its membership, and a common bond (common "center of interest," such as joint capital or investments, cash or bank account, piece of land, or herd of cattle or other animals) can indicate sustainability. Factors for local community participation include similar criteria on environmental and sustainable land management improvements.

At the local level, producer organizations and local communities could employ service providers (firms, associations, individuals, public sector units) to implement subprojects, if they lack the necessary capacity. In rural areas there are many potentially suitable agricultural advisers and engineers, whom the public service sector cannot employ because of lack of funds or because they do not have competitive experience for the few posts available. These potential service providers need to be trained in PRASAB activities and approved practices. Subprojects demanding more expertise could recruit service providers from outside their communes or provinces.

GEF-supported grants would be available for incremental sustainable land management activities (eligible under OP15) that are clearly identified in subproject requests, supported by acceptable indicators for measuring their success. Incorporation of clearly identified sustainable land management activities in subproject proposals would be a desirable criteria in the selection of subprojects for producer organizations and a requirement for disbursements over US\$5,000. Because the project is blended, funds would flow through the

subproject approval process, but clear accounting of GEF-financed activities would be required. The proposed general criteria for selection of subprojects for GEF support include:

- High sensitivity of the environment (important wetlands, steep slopes, poor soil).
- Significant offsite impacts, especially transboundary.
- Severity of degradation.
- Incorporation of sustainable land management activities (as in the Project Implementation Manual and OP 15).
- Incremental activities only (over demonstrated baseline).
- Feasibility.
- Chance of success.
- Bank environmental screening process completed.
- Neighbors consulted.

GEF support would reinvigorate the effectiveness of local community participation in land management. After a decade of civil unrest, effective support is needed to re-establish local networks and cooperative relationships. The GEF would enhance access to information and the methods and capacity of producer organizations, communities, and service providers. A framework for community participation (see annex 12) was developed and is detailed in the Project Implementation Manual. The GEF component would encourage community-level involvement in improving local land management with appropriate local technologies and local traditions compatible with long-term, sustainable environment management. Activities may include pilot and demonstration plots, grants for the use of sustainable techniques, and awareness building.

*Pest Management.* Consistent with the project's Pest Management Plan, producer organizations would receive training courses in integrated pest management and safe handling of pesticides. Training activities would focus on (a) promoting integrated pest management, (b) training producer organizations in integrated pest management with public awareness programs and integrated pest management networks, and (c) managing pesticides safely (transport, storage, handling, distribution, destruction of packing materials, application, poisoning, protective gear, and public awareness).

By the end of the project it is expected that (i) 50 phytosanitary inspectors, employees from provincial agriculture and livestock departments, and service providers would have been trained as trainers and (ii) 1,000 farmers would have been trained in integrated pest management. The GEF would support the producer organizations' access to information and publications, and the remaining activities would be funded by the IDA.

*Environmental analysis training.* To ensure that future subprojects are environmentally and socially sustainable and to promote understanding of the broader environmental management issues, producer organizations would be trained in environmental assessment by qualified service providers trained as trainers under the capacity-building component for the Direction de l'Environnement et du Tourisme in the Ministry of Land Management, Tourism, and the Environment.

*Management of irrigation infrastructure.* To ensure the effective management of such irrigation infrastructure as small dams, small irrigation perimeters, and water retention pools, producer organizations would be trained by qualified service providers during the planning, conception, and implementation stages. These service providers would have been trained

under the capacity-building component for the Direction du Genie Rural et de la Protection du Patrimoine Foncier in the Ministry of Land Management, Tourism, and the Environment.

*Information exchange.* GEF funds would allow the project to support (i) exchange of information among local and regional producer organizations, (ii) visits by producer organizations to learn best practices, (iii) workshops for producer organizations to facilitate the transfer of knowledge, (iv) study tours to neighboring countries, and (v) the production of training manuals on such topics as water use and integrated pest management.

Opportunities exist for coordination with Burundi's Programme National de Lutte Anti-Erosive, managed through the Ministry of Environment, which follows a participatory, watershed-based approach. Its measures would be implemented by producer organizations and their communities, and may include planting 20,000 hectares of trees in the Bugesera region, consistent with Burundi's National Action Program for the Battle Against Land Degradation (2001).

The aims for agricultural extension would be to (i) increase productivity of existing farming systems; (ii) develop farming techniques that preserve soil fertility (no tillage) and manage water resources, and (iii) improve the quality of service delivery, including demand-driven extension and training services. The last 20 years have not shown enough technologies suitable for Burundi's conditions or effective methods for disseminating available technologies. The reforms instituted in the Directorate of Agricultural Extension of the Ministry of Agriculture and Livestock and the respective provincial agriculture and livestock departments in the early 1990s did not have time to provide substantial results because of the civil disturbances and lack of funds.

In the context of liberalization and privatization of production activities, the Directorate of Agricultural Extension and provincial agriculture and livestock departments have adopted a policymaking role, regulating at the central level and facilitating agricultural technology development and transfer. Unlike civil society organizations, provincial agriculture and livestock departments cover the entire country and can be important for disseminating future innovations. A study is planned to more clearly define the mission and roles of the Directorate of Agricultural Extension and provincial agriculture and livestock departments, especially for technology transfer ( collection of information and data, actual message deliveries, research-extension links).

*Subcomponent 1(b). Emergency support for returnees and internally displaced persons (US\$10.0 million).*

The civil war resulted in an estimated 1.2 million refugees and internally displaced persons. The Government created a special program, called the Program of Rehabilitating the War-Stricken Persons' Agriculture, to help refugees and internally displaced persons return to their normal life and former occupation.

PRASAB would contribute to the Government's emergency program by financing seed, inputs, and implements for farming and cattle rearing for smallholder returnees and internally displaced persons. Support would also be available through component 1(a), including from the GEF, for acceptable incremental costs.

National Coordination for War Displaced Persons (NCWDP) units in communes and provinces would first identify returning refugees and internally displaced persons. Then the units would try to incorporate as many of the refugees and internally displaced persons as possible into the producer organizations making productive investments or to organize them into their own producer organizations. Where this is not possible for war-related or social reasons, the project would provide “emergency kits” to families following arrangements to be developed with the NCWDP.

**Component 2. Support for capacity building and institutional strengthening**

US\$7.29 million (US\$5.29 million plus GEF US\$2.0 million).

*Subcomponent 2(a). Enhancing the capacity of local communities, producer organizations, and local implementing agencies (US\$0.63 million plus GEF US\$0.72 million)*

The project would enhance the access to information and capacity of producer organizations and communities. Support would be provided for strengthening local community participation by renewing local networks and cooperative relationships that had frayed during the conflict years. Other activities include (i) strengthening the organizational, technical, and management capacities of local communities and producer organizations; (ii) ensuring representation of local communities and producer organizations on the project’s steering committees and in decision-making processes; (iii) developing professional and inter-professional organizations for better management of key agricultural subsectors; and (iv) promoting understanding of the broader environmental management issues related to land degradation and swamp land utilization.

Capacity building for producer organizations and local communities would be based on demand, linked to productive investment subprojects and offered by contracted local implementing agencies. The component would support in-country training, workshops, and study tours for managers and committee members of producer organizations and local communities.

The benefiting producer organizations and local communities would generally be grassroots organizations, but the project may also assist vertical organizations that already exist or that are established by producer organizations or local communities. Such vertical organizations are typical in the cooperative movement, but there are provincial or national level associations for other grassroots organizations. The grassroots producer organizations supported would often begin informally (with an “administrative certificate,” however), but the long-term goal is to formalize them and make them permanent and sustainable. In practice, the types of producer organizations benefiting from the project’s capacity-building support are farmer groups, associations, and women’s and youth groups involved in producing food and nonfood crops, processing and marketing food and nonfood crops, servicing farm equipment, and providing financial services (the project would not provide funds for on-lending).

This subcomponent would also strengthen, when necessary, the capacity of local implementing agencies, to enable them to provide services to producer organizations and local communities. Local implementing agencies would also provide information on project activities and processes (obtaining funds, reporting) to the groups. A capacity assessment of local implementing agencies would be conducted by the NPCMU before negotiation, and a

training plan would be developed to address gaps in organizational, technical, financial, and business skills with training, workshops, and study tours.

The implementation strategy of this subcomponent is for the to contract out execution of provincial field operations to competent civil society organizations called local implementing agencies. Though an adequate number of local implementing agencies and service providers exist in Burundi, their capabilities and capacities are often limited and need improvement. Potential local implementing agencies include:

- Local and international NGOs that may originally have shown interest in the humanitarian field but are presently active in agricultural or rural development. Local NGOs usually lack financial and other resources, whereas international NGOs have transport facilities that allow them to intervene effectively in rural areas. A list of potential international NGOs is included in the Project Implementation Manual.
- Rural microfinance institutions that are interested in agricultural credit and that are dealing with producer groups and associations, but that have limited funds and professional capacity and relatively small outreach. In the rural areas the most active microfinance institutions are COOPECS<sup>18</sup>, COSPEC<sup>19</sup>, COFIDE, COPED, and “Burundi direct.”
- Private enterprises in the agricultural sector that are usually organized around the profit-oriented cash-crop activities. Some of them may be involved in developing new export produce, such as tropical fruits, flowers, vegetables, and edible oils. Enterprises of potential interest for the project include “Ma Culture,” “Nile Plantation,” “Fruitex,” “Florex,” and “Rugofarm.”
- Agricultural consulting firms.
- Producers’ apex associations and cooperatives, for instance UCODE.<sup>20</sup>

The NPCMU would select the local implementing agencies on a competitive basis. The eligible local implementing agencies should have (i) an office and programs in the respective province (or at least in the neighboring province) or be prepared to establish them, (ii) experience in rural development and productive or social investments, and (iii) competent technical personnel in their employ or the ability to recruit them.

Under this subcomponent, the project would provide grants for improving organizational, technical, financial, and business skills among potential local implementing agencies and service providers so that they can provide high-quality services to producer organizations, local communities, and smallholders in productive and sustainable land management investments. (The project would not provide funds for on-lending.) The project would finance—according to the specific needs of each local implementing agency or service provider—a small office, transport equipment, office material, in-country training, workshops, and study tours. For new units in the provinces, other needs, such as refurbishment of offices, could be considered.

The sustainable land management component would involve collaboration with local NGOs to train extension agents and encourage the use of integrated production systems that are also environmentally sustainable (involving fish ponds, integrated nutrient management, and the like) by farmers and producer organizations. GEF support would be available for incremental activities in reinforcing local capacities including seminars, training, and awareness raising.

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<sup>18</sup> Coopératives d’Epargne et de Crédit.

<sup>19</sup> Coopérative Solidarité avec les Paysans pour l’Epargne et le crédit.

<sup>20</sup> Union des Coopératives pour le Développement.

*Subcomponent 2(b). Support for institutional strengthening of key public services (US\$4.60 million plus GEF US\$1.34 million )*

*Ministry of Agriculture and Livestock (US\$1.0 million).* The Government approved a strategy of withdrawing from direct production in agriculture and from processing and marketing agricultural products. Consequently, the European Union has financed a program to rehabilitate the traditional cash-crop sectors (coffee, tea, and cotton). This new approach would allow the Ministry of Agriculture and Livestock to concentrate on such typical public sector activities as regulatory policy frameworks, quality control, and monitoring and evaluation. But past activities have not necessarily offered effective capabilities in these areas. The financial resources to develop these activities and keep them at the desired level are lacking.

The project would develop program planning capacities and effective management systems for monitoring agricultural investments. The project would finance a few vehicles and office equipment as well as training, workshops, study tours, and recruitment of technical assistants for agricultural planning, monitoring and evaluation, and information technology.

The project would not allow overall restructuring and strengthening of the Ministries of Agriculture and Livestock or Land Management, Tourism, and Environment, but assistance would be provided for select activities directly tied to the achievement of expected results of sector operations. So the project would support building of specific institutional capacity in both ministries at the central and decentralized levels, based on studies that would analyze the capacity of both institutional and human resources and make proposals to amend the situation. The beneficiaries in the Ministry of Agriculture and Livestock would be the General Directorate of Monitoring and Evaluation and the Unit of Planning, Coordination of Studies, Programming and Budgets in the Cabinet. (Beneficiaries at the Ministry of Land Management, Tourism, and Environment are described below)

In addition to contracts to implement the productive investment subcomponent, selected provincial agriculture and livestock departments would all receive directly allocated funds to strengthen their monitoring and evaluation unit. This support includes a vehicle suitable for field travel, a computer set, a photocopier, office furniture, and funds for operational expenses, maintenance, and staff training. The European Union has committed 300,000 euros to establish a production and market information system,<sup>21</sup> and the French Development Cooperation has promised additional funds to finance the system's first-year of operations. PRASAB would provide complementary financing, especially after the first year.

The project would allow the provincial agriculture and livestock departments to:

- Train local teams with responsibility in the PRASAB project area on modern land management methods.
- Train the forest technicians on agroforestry techniques.
- Train the rural engineers on wetlands management.
- Provide equipment and supplies.
- Train key farmers in each colline area on modern land management methods.
- Train forest inspectors on modern land management methods
- Train staff in environmental concepts of wetlands management.

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<sup>21</sup> Not only for traditional activities (coffee, tea, and cotton), but also for food crops and livestock.

The project also proposes to strengthen information management to support decision-making on sustainable land management by strengthening the Direction du Génie Rural et de la Protection du Patrimoine Foncier at the national level.

To strengthen the capacity for integrated land use planning and implementation, including land degradation analysis at the national level, the project would (i) develop the National Framework for Evaluation of Land Degradation (following the recommendations of the report by Bikwemu, Buursink, and Habonimana); (ii) update global information and environmental monitoring systems and implement participatory institutional mechanisms to ensure the collaboration of Burundian Institute for Agricultural Sciences (ISABU), Institute for Agronomic and Zootechnical Research (IRAZ), Provincial Agriculture and Livestock Departments (DPAE), Geographic Institute of Burundi (IGEBU), and National Institute for Environment and Nature Conservation (INECN), (iii) develop and finalize the National Land Use and Management Plan; and (iv) consider the creation of a National Land Management Institute.

Through training seminars and workshops, GEF resources would help the Ministry of Agriculture and Livestock and the Ministry of Land Management, Tourism, and the Environment to assimilate ideas of sustainable land management in their policies and programs and develop integrated approaches to land management. GEF resources would also support institutional and policy gap analysis and advisory activities to strengthen land and natural resources management and the related legal and policy framework, including a national land management plan. Areas for attention include planning and resource allocation and natural resources use monitoring and coordination.

This would involve close coordination between the Ministry of Land Management, Tourism, and Environment (including the National Institute for Environment and Conservation of Nature) and the Ministry of Agriculture and Livestock, because the responsibilities and capacities are likely to be spread over the two ministries. Areas for attention include:

- Resource use planning and environmental management, including delineation of government agencies' roles and a decentralized approach for managing natural resources.
- Natural resources use monitoring and coordination (data collection, monitoring of indicators of ecosystem values, land and water use, biodiversity as well as socioeconomic indicators in the project area).
- Capacity enhancement through training seminars and workshops.

*The Ministry of Land Management, Tourism, and Environment (GEF US\$1.0 million).* GEF support would enhance the capacity of the Direction de l'Environnement et du Tourisme of the Ministry of Land Management, Tourism, and Environment by (i) supporting the geographic information system, which lacks sufficient qualified personnel and equipment and is needed to support the incremental aspects of the project; (ii) training five staff members in environmental assessment; (iii) supporting the project environmental specialist with an international consultant; and (iv) providing training on the development of environmental norms and procedures (water and air quality standards, safe pesticide use). Potential training sites include Tunisia, Benin, and Kenya. Additional support for the Department of Rural Engineering would be provided as on-the-ground training for field engineers in the management of wetlands (*marais*), small dams, and irrigation works.



*Strengthening research agencies (US\$3.60 million plus GEF US\$0.34 million).* This activity would finance improvements in agricultural research. Given the limited research capacity in the country and the specific needs of producer organizations and local communities, the project would support focused, short-term (two to three years) applied research aimed at solving the constraints to agricultural productivity. The project interventions would complement assistance from the Belgian Technical Cooperation, which rehabilitated research infrastructure and equipment, and support continuing education, training, study tours, and workshops for researchers. GEF incremental funding would be available to enhance research quality and focus on environmentally sustainable land management.

External financing of research stopped in 1996, suspending or slowing down research programs and causing qualified researchers to depart. Research infrastructure was destroyed or damaged in the 1993 civil war. Development of new production technologies continues to be necessary and requires dynamic well focused agricultural research systems with strong competencies in selection of priority research themes and in planning and implementation of specific research programs.

The project would thus finance (i) improvements in agricultural research, including the Agricultural Research Institute of Burundi-ISABU and other research institutes (FACAGRO, IRAZ, CNTA, and private institutes) and (ii) development and implementation of efficient demand-driven agricultural research and extension subprojects for new technologies.

While the project would promote competitive research, the ISABU in particular needs project funds to recover the capability to innovate and produce new agricultural technologies. Project interventions would complement assistance from the Belgian Technical Cooperation and would aim to rehabilitate research infrastructure (sheds, offices, laboratories, housing), providing the equipment needed for research operations (tools, information technologies, transport equipment) and ensuring continuing education and training of researchers (studies, conferences, seminars, and technical assistance for selected topics). The project would invest in better access for farmers to high-quality genetic material (again complementing Belgian assistance).

Grants would be provided for applied or adaptive research on priority themes through participatory diagnostic work financed with project funding. These grants would be available to private and public research institutions. Important areas for research support include (a) offering access to better genetic material, (b) developing good technologies for improving soil conservation and fertility, (c) fighting against plant and animal parasites, and (d) increasing the value of agricultural produce with better conservation and processing.

Various research institutes have their specializations that would serve as the basis for allocating research tasks or projects. A committee of representatives from different research institutes and the steering committee and management of PRASAB would make decisions on the research programs to be financed. The committee would use the demand of new technologies as expressed by producers, their relative importance in improving food security and income generation, and financing already provided by other donors as criteria for selecting these programs. Multidisciplinary research would also be given special consideration.

GEF resources would be used to strengthen the quality of research and reinforce the focus on environmentally sustainable land management and the reduction of soil and land degradation. Integrating conservation farming and increasing productivity in existing farming systems, improved water management, species mix, integrated pest management, and integrated nutrient management are areas to be studied, tested, and applied in pilots, with results disseminated to communities and producer organizations.

GEF-supported targeted research would provide information, knowledge, and tools to improve the quality and effectiveness of its projects and programs. The specific objectives of targeted research planned under PRASAB are to facilitate the refinement and adoption of innovative sustainable land management practices and technologies, including early warning and monitoring systems

Targeted research would initially focus on partnerships with small farmers, pastoralists, and other natural resource users and stakeholders to demonstrate under field conditions cost-effective agronomic practices that improve soil fertility management as alternatives to shifting agriculture, tillage methods that have minimal impacts on soil structure and improve soil and water conservation, and systems that improve livestock production in areas with limited rangeland or pasture.

Targeted research would also develop analytical tools and frameworks to assess the benefits of early intervention to prevent or control degradation. GEF resources would support targeted research to support sustainable land management with emphasis on field testing and distribution of packages including (i) agricultural practices that improve the fertility and physical and chemical conditions of the soil as well as systems that intensify fodder production to counter overgrazing; (ii) woody species that are economically valuable and cause less soil degradation than agricultural crops (trees for fodder, fuel wood, construction timber, fruit, medicinal plants); and (iii) assessment of the economic impact of land degradation in the agro-ecological zones of PRASAB and the economic and ecological benefits of early intervention to prevent or control degradation. Project lessons would be shared with other countries in the region. Regional contacts and partnerships would be enhanced, for example, with the Association for Strengthening Agricultural Research in Eastern and Southern Africa, the International Center for Research in Agro-Forestry (especially its eco-regional project, the African Highlands Initiative), the Tropical Soil Biology and Fertility Institute (African Soils program), and other CGIAR and research organizations.

### **Component 3. Support for project coordination and management (US\$5.33 million)**

This component would finance project management, monitoring, and evaluation. The main costs relate to establishing and supporting the NPCMU in the Ministry of Agriculture and Livestock and the three IPCMUs responsible for coordination and continuous monitoring, audits and periodic evaluation studies, and reporting (including a project completion report). The project would support the salaries of a small team of experienced technical specialists, office rehabilitation, vehicles, training, workshops, and study tours for the NPCMU and the IPCMUs. It would also cover the units' operating costs.

In addition, GEF resources would support the incremental costs of establishing and managing sustainable land management activities and tracking their implementation, as well as the monitoring of environmental indicators related to project objectives and activities. NPCMU

monitoring would include ecological system data in project areas, fragility and degradation of marshes and watersheds, current agriproduction systems, community needs and interest, and applicability of sustainable land management practices. The NPCMU would also monitor the impacts of institutional and policy change including land ownership and user rights patterns and would make ongoing recommendations for policy and regulatory reforms. A key feature of this program is that it would be implemented through communities. Additional resources for training, workshops, and study tours would enable the NPCMU to establish participatory processes for implementation.

## Annex 5: Project Costs

Project Cost By Component and/or Activity	Local US \$million	Foreign US \$million	Total US \$million
A – Support for Production and Sustainable Land Management Investments (SLM) (US\$29.58)			
1- Productive Investments	9.10		9.10
2- SLM Investments	7.00		7.00
3- Support Services	3.48		3.48
4- Emergency Support for Returnees and IDP	10.00		10.00
B – Support for Capacity Building and Institutional Strengthening (US\$6.55)			
1- Enhancing the Capacity of Local Communities and producer organizations	0.37		0.37
2- Information Sharing and Strengthening Capacity of Local Communities and Pos (GEF)	0.46		0.46
3- Enhancing the Capacity of Local Implementing Agencies	0.17		0.17
4- Strengthening of Information Management at the Provincial Level (GEF)	0.26		0.26
5- Support to MAE	0.21	0.38	0.59
6- Strengthening of the Capacity for Integrated Land Use Planning and Implementation (GEF)	0.38		0.38
7- Support to Research Agencies	2.86	0.23	3.09
8- Support to Targeted and Applied Research on SLM Practices (GEF)	0.27	0.06	0.33
9- Support to MATET	0.03	0.25	0.28
10- Strengthening of Information Mgt and Research on Integrated Land Mgt (GEF)	0.50	0.12	0.62
C – Support to Project Coordination and Management (US\$4.67)			
1- Coordination	3.86	0.49	4.35
2- Monitoring	0.32		0.32
Total Baseline Cost	39.28	1.54	40.82
Physical Contingencies	0.04	0.12	0.16
Price Contingencies	1.65	0.04	1.69
<b>Total Project Costs<sup>1</sup></b>	<b>40.97</b>	<b>1.70</b>	<b>42.67</b>
Interest during construction			
Front-end Fee			
<b>Total Financing Required</b>			

<sup>1</sup>Identifiable taxes and duties are US\$m \_\_\_\_, and the total project cost, net of taxes, is US\$m \_\_\_\_. Therefore, the share of project cost net of taxes is \_\_\_\_%.

## **Annex 6: Implementation Arrangements**

### **Implementation Agencies:**

The MAE will have the overall responsibility for project implementation in close coordination with MATET, especially for the implementation of the GEF supported SLM's activities.

At the national level, a steering committee, composed of Ministers and/or their representatives for Agriculture, Environment, Community Development, Planning and Reconstruction and other key ministries and related key agencies, will define policy and strategy for the sector and modalities of their execution. The Ministries involved are the MAE; Development Planning and Reconstruction; Finance; Interior; MATET; Communal Development; and Reinstallation of Displaced and Expatriated People. The Director General of ISABU and the Coordinator of PRASAB are also members of the Committee. It is planned that representatives of the private sector and NGOs will be included in the Committee, as well (possibly as an advisory panel). A sub committee chaired by the Ministry of Environment will focus on the GEF Sustainable Land Management (SLM) activities and another chaired by the Ministry of MRRDR on Component 1 (b). The Committee will also be responsible for overall monitoring and evaluation of project implementation and will approve the annual work plans and budgets, keeping them in line with the project's objectives. It will organize at least one annual meeting with representatives of the donors to ensure adequate coordination of the rural sector activities.

A Technical Monitoring Committee, composed of high-level officials in key ministries, agencies and institutions (ISABU, IRAZ, INECN, University of Burundi, NGOs etc), will be established to monitor and guide the operations of the project and to analyze and approve the documents to be submitted to the NSC. A technical subcommittee will focus on the implementation and monitoring of the SLM's activities and another on the subcomponent 1 (b).

The PIM will describe the relationships between the various ministries and departments that can provide support to the project and the tasks and responsibilities of the different committees.

### **2. Project Coordination and Management Unit**

A NPCMU, located under the MAE, will be responsible for the technical and financial implementation of the project. It will be staffed by a small team of experienced technicians including a project coordinator, an institutions and community development specialist(s), a rural development specialist, a SLM specialist, a monitoring and evaluation specialist, a financial specialist, a procurement specialist, an accountant and support staff. The staff will be recruited on a competitive basis. The team will also be responsible for the coordination, implementation and monitoring of the SLM activities.

For field coordination and guidance, the project will have three decentralized units, called IPCMUs supervised by the NPCMU. Each IPCMU will cover at least three provinces. They will be located at Mukamba (for Bururi, Makamba and Rutana Provinces), Muyinga (Kirundo, Muyinka, Ngozi, Cankuzo), and Muranvya (Muranvya, Bubanza, Mwaru). The IPCMUs will have a staff of an inter-provincial coordinator, a monitoring and evaluation

officer and a secretary/accountant. Two selection committees will be established, one at the communal level, a Communal Approval Committee (CAC) for the approval and selection of subprojects costing less than 5.000 US \$, and a second one at the Provincial level, Provincial Approval Committee (PAC) for larger subprojects costing more than 5.000 US \$

The PIM will specify the tasks of the different organs and their members and staff, including the competence levels required.

## **Implementation of components and subcomponents**

### Component 1: Support for Productive and Sustainable Land Management Investments

Subcomponent 1 (a): Support for Productive and Sustainable Land Management Investments for producer organizations and L Cs.

Before project operations will start in a province, NPCMU will engage a LIA on a contract basis to promote and provide general guidance for implementing the project operations concerning producer organizations and local communities in the province. (Lists of potential foreign and national LIAs are in the PIM)

At the outset of the project in a province, the respective LIA will prepare an inventory of the existing producer organizations in the province, including the type of category to which they belong (cooperative, association, women's group); type of their activities; membership; structure and staffing/membership; and their strengths and weaknesses. Because the approach of supporting producer organizations will be demand-driven, no pre-selection of the producer organizations to be assisted will be done. The LIAs will have the task of informing the existing producer organizations and local communities about the project facilities and the process of obtaining funds under the project. They will then help organize participative diagnostic meetings for interested producer organizations and local communities. producer organizations and local communities will choose their priority investments and prepare subproject plans and financing requests—if necessary, with help of local service providers.

The actual implementation of productive investment subprojects will be the responsibility of the producer organizations and local communities that have identified and initiated them; but for subproject planning, procedural assistance, and technical advice they could recruit local SPs with project funds. These SPs will be specialized local agencies, consulting firms, or individuals that either have the necessary skills or are deemed sufficiently prospective to be provided with complementary training.

LIAs will help process and evaluate the applications, which will be approved by CACs, or in the case of more substantive requests or capacity-building applications by subcommittees of the PACs, according to a set of criteria to be agreed upon. The NPCMU will supervise and ensure that the LIAs, PACs, and CACs comply with the approved rules. The criteria to be used for approving subprojects will include the following: the pertinence of the subproject activities in respect to PRASAB objectives including SLM; the number of members benefiting; the average cost per benefiting member; the probable financial benefits per member; and likely sustainability, including the reliability of the maintenance plan made for the subproject investment or activity. The sustainability is difficult to project in advance, but information such as the date of the PO establishment, implementation of past activities, recommendation by local administration, and a common bond between the members (group

cohesion, commonly-owned capital, cash or bank account, herd, or piece of land) could serve as suitable proxies of the sustainability. Details of the process, including the practices of procurement and disbursement of funds, are provided in the PIM

#### Subcomponent 1 (b): Emergency support for returnees and internally displaced persons

PRASAB will contribute to the Government's emergency program by supporting returnees and IDPs in selected project areas by helping them be included in the local producer organizations, and where that is not possible due to social tensions, by financing agricultural start-up kits that would include seed, selected planting materials, and inputs and implements for farming and cattle rearing.

In implementing this subcomponent, the project will liaise with the NCWDP, and its provincial and commune-level organizations. The project will also seek guidance of the Steering Committee's subcommittee for the returnees and displaced people (see Section C.2).

### **Component 2 : Support for capacity building and institutional strengthening**

#### 2(a) Enhancing the Capacity of local communities and producer organizations and LIAs

NPCMU and the provincial administration units will carry out the implementation of this subcomponent with the help of LIAs. The potential LIAs will make improvement plans and financing requests on their own needs to NPCMU as capacity strengthening subprojects. NPCMU will approve them within budgetary limits and by using agreed-upon criteria. The LIAs could also formulate joint plans to strengthen several service providers in their respective provinces (for instance, in order to organize larger seminars) and present them to NPCMU for approval. Individual local service providers may present to the respective provincial LIAs their own capacity enhancing subprojects that will help them strengthen their capacity and skills. The LIAs will evaluate the requests and submit them to the PAC for approval. NPCMU and the World Bank supervision missions will monitor the compliance of the agreed-upon rules of the subcomponent.

For the training needs of producer organizations and local communities, the Provincial LIAs will prepare annual training plans. They will be reviewed and consolidated by NPCMU and passed on to the World Bank for the Bank's no-objection. Once approved, the Capacity Building Section of NPCMU will supervise the implementation of the plans.

Consistent with the project's Pest Management Plan (PMP), the producer organizations will receive support through training courses in integrated pest management (IPM) and safe handling of pesticides. Training activities will focus on: (a) Promotion of IPM through, among other things, the organization of farmers into producer organizations; developing IPM training capacity at the DPAEs; and training the trainer in IPM through a national IPM workshop ; (b) Training of producer organizations in IPM through (i) public awareness raising programs and establishment of IPM networks at the level of the producer organizations; (ii) access to information on IPM (posters, literature and other materials promoting IPM); and (iii) access to publications by ISABU on IPM research activities and results; and (c) Safe pesticide management as they relate to transport, storage, handling, distribution of pesticides and destruction of packing materials, safe application procedures, risks of pesticide poisoning, the importance of protective gear, and public awareness of the dangers of pesticides.

It is expected that by the end of the project, (i) 50 persons (phytosanitary inspectors, DPAE personnel and service providers) will have been trained as trainers; and (ii) 1,000 farmers will have been trained in IPM.

To ensure that future sub-projects are environmentally and socially sustainable, and to promote and understanding of the broader environmental management issues among the producer organizations, they will be trained in environmental assessment through qualified service providers who will be trained as trainers under the capacity building component for the Direction de l'Environnement et du Tourisme, Ministry of Environment. The producer organizations will receive relevant training through qualified service providers during the planning, conception, and implementation stages and management of such infrastructures. These service providers will have been trained under the capacity building component for MATET to ensure the effective management of irrigation infrastructure such as small dams, small irrigation perimeters or water retention pools.

### 2(b) Support for Institutional Strengthening of Key Public Services

The process of making project funds available for the purposes of this subcomponent will start by these Ministries making an annual action plan for the subcomponent within the budget allocation indicated in the project cost estimates. The action plan will include a list of purchases and other eligible costs for the year. As with the Research subcomponent below, NPCMU will process the annual plans and their budgets and present them to the NSC for approval. The NPCMU and the World Bank supervision missions will monitor the compliance of the agreed-upon implementation of the annual plans.

ISABU, the research department of the MAE will also prepare annually an action plan for the subcomponent within the budget allocation indicated in the cost estimates of PRASAB. This action plan will include a list of purchases and other eligible costs for the year. The NPCMU will process the annual plans and their budgets and present them to the NSC for approval. The procedures concerning this component including the practices of procurement and disbursement of funds, are detailed in the PIM.

### **Component 3. Support to project Coordination and Management.**

Implementation arrangements are those explained in the PAD section C.2. They are illustrated in the organization chart attached to the PIM and to the Administrative Financial and Accounting Manual.

### **3. Coordination with Other Development Efforts**

The project will work in collaboration with central governmental services (DGA, DGE, DGSE, DGVA, ISABU, CNTA) and the DPAEs. collaboration will take place through the various project committees, in which these organizations are members, and through extensive dissemination of all the information and data the project produces, thus helping them in their own planning and monitoring and evaluation activities in the rural sector.

Despite the self-standing nature of the project, it will be closely linked with the development efforts of the international agencies active in the rural sector in Burundi (the main agencies are IFAD, EU, French Cooperation, Belgian Cooperation, UNDP, and FAO, for details see Annex 2). Many of them are involved in specific activities that will benefit from the



complementary financing to producer organizations or local implementation agencies and service providers that PRASAB can support. In addition, the other projects and programs in the rural sector only cover a part of the provinces or investment needs (see Annex 2), and PRASAB will expand the coverage of some of their activities to larger areas. The French and Belgian Cooperation Services are expected to provide limited parallel financing for the first year investment costs to help establish a market information system in the MAE (PRASAB will finance the operating costs and investment costs beyond the first year). The project will also be closely coordinated with those of other Implementing and Executing Agencies of the GEF, both through the GEF and also through closer coordination of activities on the ground at the country and province level.

### **Principal project areas**

The project will have a national coverage. However, in practice the provinces where the project will operate will depend on a number of factors, such as the number of producer organizations available for or interested in project activities; agricultural potentials and opportunities; on-going activities with which PRASAB operations could link; and other development agencies supporting producer organizations or micro-project investments in the province. For instance, IFAD will cover four provinces with partially similar support as PRASAB, and it is planning to enter two or three other provinces. Because no province is fully covered with the same type of activities that PRASAB supports, none of them will be excluded from consideration, but at the time of appraisal the following provinces appeared to have the best prospects to benefit from the project funds to start with Makamba, Rutana, Kirundo, Muyinka, Ngozi, Cankuzo, Muranvya, Bubanza, Mwaru, and in addition one half of Bururi Province (see map in PIM). In the case that PRASAB will enter provinces where other development agencies are active, the project authorities will have discussions and semi-annual coordination meetings with such agencies to harmonize and complement each others' development efforts. The administrative chart is in the PIM and in the Project Administrative Financial Accounting Manual

## **Annex 7: Financial Management and Disbursement Arrangements**

### **1. IMPLEMENTATION ARRANGEMENTS**

#### **Project Management Structure.**

The main implementing agency for the project will be the MAE through the NPCMU. The NPCMU is a new structure. It will be responsible for the technical and financial implementation of the project. The project will have three Inter-provincial project coordination and management units.

The daily supervision of accounting activities will be carried out by the Administration and Financial Officer(AFO), who will be assisted by a Chief Accountant and an Accountant.

An internal audit function will be required to ensure strong supervision and quality assurance at various stages of the project.

#### **Planning, Budgeting and Budgetary Control.**

The project will ensure the existence of suitable work plans. Planning will be done within the guidelines issued in the PIM to be adopted prior to project negotiations. A well-defined budgeting and budgetary control system will be put in place. Annual budgets will be prepared based on specific guidelines contained in the project implementation manual and on annual work plans. The PAD and the PIM will include a disbursement schedule. They will be used as the basis for the preparation of annual budgets. The plan will be updated as part of project implementation.

The budget format will be based on project components and will be integrated into the project accounting system. The budget will be used as a management tool. Expenditures will be authorized in accordance with agreed budgets.

#### **Accounting System.**

**Financial Management Manual.** The accounting system of the project will be based on well documented Manual of Financial and Accounting Procedures. Proper books of accounts will be kept on double entry principle using the cash based system.

Written job descriptions with defined duties, responsibilities, lines of supervision and approval limits will be established. Definition of responsibilities should ensure segregation of duties for proper accountability.

A consultant has been appointed for the documentation of the Financial Management Procedures.

**Staff and Transactions Recording.** The project will be under the responsibility of the National Project Coordinator who reports to the MAE. The National Project Coordinator is experienced in the implementation of World Bank financed projects. He will be assisted by the Administrative and Finance Officer(AFO). The accounting unit will be under the control of the AFO. He will be assisted by the Chief Accountant and the Accountant. The AFO and

the Chief accountant have been recruited. The recruitment of the Accountant has started. The Accountant should have a good knowledge of Information Technology.

An accounting software has been purchased to manage the accounting function. The project chart of accounts have been established. Accounting staff have been trained to maintain the system. Training will be required for other accounting staff. Appropriate controls will be instituted to safeguard the confidentiality, integrity and availability of the data.

**Books of Accounts.** A well defined filing system has been put in place. The system allows authorized users easy access to accounting and supporting documents on a permanent basis,.

## **Reporting Arrangements**

**Integrated Financial Management System.** The project will put in place an Integrated Financial Management System. The system should integrate the Budgeting, Operating and Accounting Systems to facilitate monitoring and reporting. System generated formats for periodic reports will be developed and agreed with project management. An action plan will be reached with the borrower.

**Financial Monitoring Reports (FMRs).** Consolidated quarterly FMRs will be produced to include:

- Sources and Uses of Funds by project Categories and Components
- Output Monitoring Report
- Procurement Monitoring Reports

Project management should be able to produce FMRs by effectiveness.

**Financial Statements.** In compliance with International Accounting Standards(IAS) and World Bank requirements, the project will produce annual project financial statements. Financial Statements will include:

- A Statement of Cash Receipts and Payments.
- A Balance sheet that shows Assets and Liabilities of the entity.
- A Statement of Sources and Uses of Funds.
- Notes to the financial statements including accounting policies underlying the preparation of financial statements.
- A Management Assertion that Bank funds have been expended in accordance with the intended purposes as specified in the World Bank legal agreement.

## **Audit Arrangements**

**Internal Auditing.** As an important part of the ongoing monitoring of the system of internal controls, the internal audit function will provide an independent assessment of the adequacy of, and compliance with, the established controls and procedures. The Internal Audit function will be contracted out to a local firm of consultants. The selected firm will be acceptable by IDA in terms of independence, qualifications and experience. The selection will be based on terms of reference agreed with IDA. The firm will report directly to senior management in order to ensure the independence of the function. The frequency and extent of internal audit review and testing of the internal controls will be consistent with the nature, complexity, and

risk associated with the project's activities. Internal audit reports will address internal control deficiencies, or ineffective policies or procedures. Project management will be expected to correct the deficiencies in a timely manner.

**External Audit.** Qualified independent auditors will be appointed by Project Management. The selected auditors will be acceptable by IDA in terms of independence, qualifications and experience. The audit will be based on terms of reference agreed with IDA. The external audit work will include all World Bank funds, Government funds and other funds of the project.

Furthermore, the financial statements of the project including the GEF, will be audited every six months. The date of the first audit will be determined in consultation with IDA.

In addition to the audit report, the auditor will be required to prepare a Management Letter where internal control weaknesses and recommendations for improvements, are highlighted.

A single audit opinion will be issued on project income and expenditures, special accounts and statement of expenditure. The audit reports along with Management Letters will be sent to IDA and all other financing partners not later than four months after the end of each preceding period.

### **Supervision**

Financial Management Supervision will be done by the project Financial Management Specialist over the project life to ensure the implementation of strong financial management systems. Regular Statement Of Expenditure(SOE) reviews will be undertaken where necessary, in compliance with World Bank requirements. The Project Status Report(PSR) will include a financial management rating.

### **Disbursement Arrangements**

**Banking Arrangement.** The following Bank accounts are currently maintained under the Project Preparation Fund (PPF) for project funds:

- Special Account A: Denominated in US dollars. This is the main project account into which are deposited project implementation funds from IDA.
- Special Account B: Denominated in US dollars. This receives funds from the Global Environment Facility (GEF).
- Project Account: This is denominated in Local currency. Counterpart funds from the Government of Burundi, may be deposited in this account.

These accounts are maintained in a Commercial Bank accepted by IDA. The project funds will be disbursed through the current banking arrangements.

Disbursement of IDA Funds to Project Management. IDA funds will be disbursed to Project Management for activities based on Financial Monitoring Reports(FMRs) that include financial reporting, procurement and contract management with physical implementation progress. An initial deposit advance will be made into the Special Account A . The advance will be meant to cover project expenditures for 6 months as indicated in the initial six-month cash flow forecast.

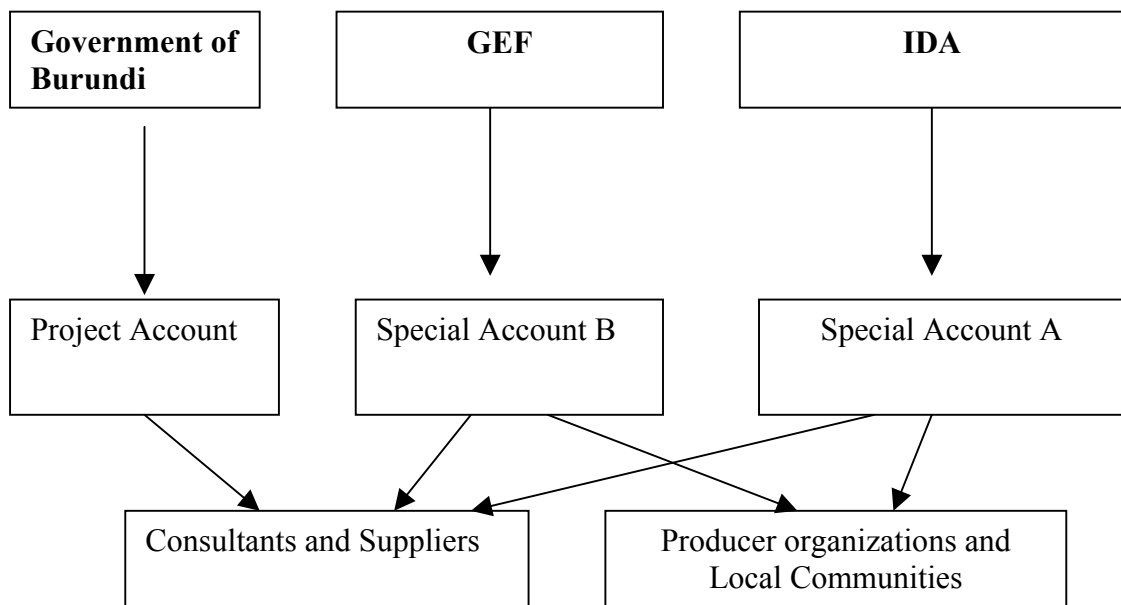
*Disbursement of GEF Funds to Project Management.* GEF funds will be disbursed to Project Management in accordance with GEF procedures.

*Disbursement of Funds from the Special Account A to producer organizations.* Funds will be disbursed from the Special Account A to producer organizations for activities to be implemented under approved sub-projects. Sub-projects approved will indicate the arrangements through which payments will be made. producer organizations will be required to open Bank Accounts in Commercial Banks acceptable by IDA. These accounts will receive funds from the Special Account A and the contributions from producer organizations. Where producer organizations do not have easy access to Banks, special arrangements will be made with the Commercial Bank in which the Special Account A is maintained, to facilitate the transfer of funds.

Flow of Funds.

The diagram below illustrates the Funds Flow arrangements:

### **Funds Flow Arrangements**



### **CONCLUSION**

Financial Management risks will be reduced through the proper implementation of financial management arrangements. Compliance with the action plan below will enable the project to comply with the World Bank's financial management requirements.

### ***Financial Management Action Plan***

<b>Issues</b>	<b>Recommended Action</b>	<b>Due Date</b>
Project Implementation Plan	A Project Implementation Plan should be prepared, discussed and agreed with the World Bank.	Before Negotiations
Reporting formats agreed	The Formats of Financial Monitoring Reports(FMRs) should be determined and agreed with IDA.	Before Negotiations
Documentation of Financial and Accounting Procedures	Financial and Accounting Procedures to be used, should be properly documented.	Before Negotiations
Establish an Integrated Accounting system	An Integrated Accounting System will be established	Credit Effectiveness
Audit of project financial statements	Terms of Reference for the audit of the financial statements of the project will be updated and agreed with IDA. The scope of the audit will be defined. The auditor will be appointed.	Credit Effectiveness

## **Annex 8: Procurement Arrangements**

### **BURUNDI: AGRICULTURE REHABILITATION AND SUPPORT PROJECT**

#### **General**

**Key Issues.** Burundi public procurement is governed by the decree law n°1/ 15 dated May 19, 1990 and the decree n° 100/ 120 of August 18, 1990. Since 1990, no CPAR has been carried out. Experience of these last years shows that procurement regulations and procedures in Burundi do not conflict significantly with Bank guidelines. In addition, the country's procurement practices allow IDA procedures to take precedence over any conflicting provisions in the national regulations. Thus far, the major problems encountered evolve around the following: (i) delays in the procurement process mostly owing to inadequate procurement planning; (ii) insufficient time given to bidders to prepare their offers despite the existence of suitable provisions in the national regulation; (iii) high propensity to use direct contracting for goods and civil work and single source selection for services despite the fact that national competitive bidding is the default method foreseen by the procurement regulation; and (iv) inadequate supervision of contracts execution as evidenced among others by frequent delays in resolving disputes and conflicts.

**Procurement reform process.** The Government is keen to address these weaknesses. A Steering Committee aimed to organize the reflection on the procurement reform and to coordinate its implementation was established by the ordinance No 540/649 dated June 16, 2003 of the Ministry of Finance. This committee organized consultations of stakeholders on a proposal of a procurement reform action plan which ended with a workshop on the procurement reform action plan organized by the Government on October 30, 2003. The recommendation of the workshop has been submitted to the Cabinet meeting for review and adoption in November 2003. The adoption by the Government of the satisfactory procurement reform action plan was one of the measures for the release of the third installment of the Economic and Rehabilitation Credit (Cr. 3710-BU), planned for January 2004. The implementation of the procurement reform action plan is supported by an IDF grant signed on December 4, 2003.

#### **Use of Bank Guidelines**

Procurement of goods and works required for the project and to be financed from the proceeds of the credit shall be governed by the *Guidelines for Procurement under IBRD Loans and IDA Credit*, published in January 1995 and revised in January and August 1996, September 1997, January 1999, and May 2004. National Competitive Bidding (NCB) will be carried out in accordance with Burundi procurement law and regulation acceptable to IDA. The NCB is consistent with IDA key procurement objectives and ensure that: (i) bids will be advertised in national newspapers with wide circulation; (ii) the bid document clearly explains the bid evaluation and award criteria; (iii) bidders are given adequate response time (minimum four weeks) to prepare and submit bids; (iv) bids are awarded to the lowest evaluated bidder and not arbitrarily; (v) eligible bidders, including foreign bidder, will not be precluded from participation; and (vi) no domestic preference margins are applicable to domestic manufacturers and suppliers.

Consultant services contracts financed by IDA will be procured in accordance with the Bank's *Guidelines for the Selection of Consultants by World Bank Borrower* dated January

1997, revised in September 1997, January 1999, May 2002, and May 2004. The World Bank's Standard Request for Proposal (SRFP) will be used and Forms of Contracts as needed (lump-sum, time-based and/or simplified contract for short term assignment and individual consultants) as well as the Sample Evaluation Report for the Selection of Consultants.

### **Advertising**

A draft General Procurement Notice (GPN) will be prepared and published, following Board Approval in the *United Nations Development Business online (UNDB online)* and in the *Development Gateway's dgMarket*, listing the project components, and goods and works contracts procured under ICB, and large contracts for consultants services (above US\$200,000) to obtain expression of interest and draw up a roster of reliable firms that will make the short list. SPNs for goods and work contracts subject to ICB and NCB, shall be published in the national newspaper. The Borrower has been advised that the advertising of the specific contract should coincide with the date that the bidding documents are available for purchase by interested bidders. Request for expression of interest for each contract for consulting firms shall be advertised in the national newspaper. Answers to these expressions would be used to establish lists of NGOs and service providers who would assist the producer organization and local communities. Sufficient time should be allowed (minimum of 14 days) before preparing the short list.

### **Procurement Capacity assessment**

An assessment of the NPCMU's capacity has been carried out during appraisal in accordance with the Procurement Policy and Services Group (OPCPR) of July 15, 2002. The assessment outlines the main issues and recommendations, and is in the project files. The project is judged as being at high risk mainly because of the lack of previously trained personnel in procurement. The main recommendation is to develop an action plan to mitigate the procurement risk associated with the project. The NPCMU is in place with a Project Coordinator, who is reported to have a wide experience in IDA-financed project implementation, a Financial Management Specialist, and an Accountant, while the recruitment of the Procurement Specialist is underway. To build the procurement capacity of NPCMU, the following measures will be taken: (i) the recruitment of the Procurement Specialist before credit negotiations; (ii) a Project Implementation Manual with detailed procedures and standard bidding documents to be used for NCB and community-driven investments will be adopted and disseminated before negotiations; (iii) a three-day procurement training session program focused on procurement planning and contract management issues will be delivered during the project launching workshop; (iv) setting-up of an acceptable procurement record keeping and filing system within six months of implementation; and (v) during the first year of project implementation, the annual work program of the NPCMU will comprise at least 3 days procurement training for all the person involved in the procurement process without relevant experience and training.

### **Procurement Plan**

A Global Procurement Plan (GPP) for the whole project and a Detailed Procurement Plan (DPP) for the initial period of at least 18 months of the project have been prepared. The DPP is to be agreed upon with IDA before credit negotiations. The DPP will include the contract package and for each package, the cost, the procurement method, and the timing of



each milestone in the procurement process. In November of each year the GDP and the DPP for the next 18 months will be updated and agreed with IDA.

For subprojects to be implemented by NGOs, civil society organizations, private sector entities, producer organizations, and local communities, their demand driven nature makes it difficult to finalize procurement plan for this component at this stage. However, the appraisal document of each approved subproject will include a procurement schedule for completing this subproject.

### **Manual of Procedures for the Project**

A draft Implementation Manual of Procedures for the Project has been prepared. It describes the administrative, financial, accounting procedures, and internal organization. It also includes: (i) procedures for calling for bids, selecting consultants, and awarding contracts; (ii) internal organization for supervision and quality control; (iii) eligibility criteria, and procurement procedures for the community-driven investment; and (iv) financial management, budgeting, accounting, and disbursement procedures. The draft PIM will be discussed during negotiations and a version acceptable to IDA will be a condition of effectiveness of the credit.

### **Procurement Implementation Arrangement**

The NPCMU located in MINAGRI will be autonomous for procurement matters and responsible for carrying out the procurement of goods, works, and services for all the project components. It will be staffed with competent, experienced technical and support personnel, and be assisted at the provincial level by 3 ICPCMUs to ensure proper procurement implementation for the project. Consultants will be used as necessary to carry out specific tasks. The IPCMUs at the provincial level will assist the producer organization and local communities identifying and prioritizing subprojects; providing them with standardized designs (developed by line ministries) and contracts; (iii) monitoring contracts entered into by the local communities at the local level, and assisting them in undertaking the tendering process for goods and materials procured; (iv) supervising the works (this may be done by NGOs and local service providers chosen primarily on a competitive basis); and (v) coordinating and obtaining clearances from the NPCMU. In case where NCB for the subprojects would be necessary, the IPCMUs with the assistance of relevant line ministries, will coordinate the bidding process on behalf of the producer organization and local community, and would prepare the material requirements and bills of quantities.

Procurement for community subprojects will be carried out by the communities themselves. Applications will be sent to the Communal Approval Committees and Provincial Approval Committees. The subprojects will be assessed as well as the capacity for the community to implement procurement activities derived from the subproject in accordance with the criteria established by the PIM. Communities which have no adequate competence to conduct on their own the procurement activities will seek the assistance of local service providers as condition of approval of their subproject.

### **Procurement methods**

***Civil works (IDA only US\$0.27 million).*** Contracts for works estimated to cost US\$200,000 equivalent or more per contract will be procured using International Competitive Bidding

(ICB) procedures. Works contracts between US\$50,000 and US\$200,000 equivalent per contract will be awarded by National Competitive Bidding (NCB) procedures acceptable to IDA. The bidding documents to be used for NCB including the evaluation criteria and the contract will be described in the PIM to be agreed with IDA during the negotiations. Small works estimated to cost less than US\$50,000 equivalent per contract may be procured under lump-sum, fixed price contract awarded on the basis of quotation obtained from at least three qualified contractors in response to a written invitation. The written invitation shall include a description of the works, basic specification, the required completion date, a simple form of agreement acceptable to IDA, and relevant drawings where applicable. The contract shall be awarded to the contractor who offers the lowest quotation provided that the bid is substantially responsive to the conditions specified in the written invitation. The related documents (instruction to bidders, model of contract, etc.) will be included in the PIM.

***Goods (Total US\$ 1.97 million, of which IDA US\$ 1.7 million and GEF US\$ .2 million)..***

The project will finance items such as vehicles, motorcycles, computers, and office equipment. To the extent practicable, goods and equipment will be combined in packages estimated to cost US\$150,000 equivalent or more and will be procured through International Competitive Bidding (ICB) procedures, using IDA Standard Bidding Documents. Goods estimated to cost less than US\$150,000 equivalent per contract will be procured using National Competitive Bidding (NCB) procedures acceptable to IDA. Goods including vehicles and computers estimated to cost less than US\$ 50,000 equivalent per contract may be procured directly from IAPSO in accordance with the provisions of paragraph 3.6 of the Bank Guidelines. Office equipment, motorcycles, purchases of off-the-shelf items may be procured through prudent shopping procedures in package estimated to cost less than US\$50,000 equivalent per contract in accordance with the provisions of paragraph 3.5 of the Bank Guidelines and June 8, 2000 Memorandum “Guidance Procurement Note on Handling Procurement under Shopping Method issued by the Bank.

***Community-based procurement (Total US\$ 26 million, of which IDA US\$ 24 million and GEF US\$ 2 million).***

Subprojects to be financed under components 1 and 2 would comprise a broad spectrum of activities to be undertaken with direct participation and financial contribution of the local communities. It is not possible to determine the exact mix of goods, small works, and services to be procured under these activities due to their demand-driven nature. Funding of these activities would be in the form of grants. Therefore, the types of activities to be financed under subprojects and their procurement details would depend on the needs identified by the community-based organizations and civil society organizations. The contract would be procured following simplified procurement procedures as described in the PIM for community-based projects, based on the Reference Guide for Fiduciary Management for Community-Driven Development Projects dated May 7, 2002. In regard to the Emergency for the rehabilitation of war displaced persons financing would also depend on applications received from communities, as described in the PIM.

***Consultancy services and training (Total US\$ 12.35 million, of which IDA US\$ 8 million and GEF US \$ 2.7 million).***

The consulting services and training would cover: (i) identification, preparation and implementation of the subprojects, (ii) training for capacity building, (iii) support of project implementation, (iv) financial management and procurement support, and (v) various studies aimed to reinforce the capacity of the implementing agencies to fulfill their mandate and responsibility .

Consultant services estimated to cost US\$100,000 or more will be procured through Quality- and Cost- Based Selection (QCBS) method in accordance with paragraph 3.2 of the Consultant Guidelines. Assignment estimated to cost \$200,000 equivalent or more will be advertised in the UNDB online, dgMarket, and in at least one national newspaper of wide distribution.

Consultant services for assignment of a standard and routine technical nature such as engineering design, financial and technical audits estimated to cost less than US\$100,000 equivalent per contract, may be awarded using the Least-Cost-Selection (LCS), in accordance with the provisions of paragraph 3.6 of the Consultant Guidelines. Audit services may also be procured, using the Consultant Qualifications Selection (CQS) method, in accordance with paragraph 3.7 of the Consultant Guidelines.

Training institutions for workshops and activities geared towards institutional and capacity building for contract less than US\$100,000 equivalent, will be awarded through the CQS method, in accordance with paragraph 3.7 of the Consultant Guidelines.

In the case of assignments estimated to cost less than US\$100,000 equivalent the shortlist may be made up entirely of national consultants (in accordance with the provisions of paragraph 2.6 of the Consultant Guidelines), provided that at least three qualified national firms are available in the country and foreign consultants who wish to participate are not excluded from consideration.

Single-source selection may exceptionally with IDA's prior agreement be used for (i) training, (ii) advisory services related to activities of the technical support agencies, (iii) consulting assignment provided by NGOs or other organization to assist provinces, communes and community subprojects, in accordance with the provisions of paragraph 3.9-3.13 of the Consultant Guidelines.

Assignment requiring individual consultants like training activities, workshop, small studies, may be contracted by comparing the qualifications of individual consultants, who have expressed an interest in the assignment or who have been identified. All consulting services of individual consultants will be procured in accordance with the provisions of paragraphs 5.1 to 5.3 of the Consultant Guidelines. Some individual consulting services may, with the agreement of IDA, be selected under single-source basis in accordance with the provisions of paragraph 5.4 of the Consultant Guidelines. No civil servant can be hired as consultant.

Training, workshops, study tours, conference attendance will be carried out on the basis of approved annual work programs that would identify the general framework of training or similar activities for the year, including the nature of training/study tours/workshops, number of participants, and cost estimates.

### **Prior Review Thresholds**

**Civil works** contract estimated to cost the equivalent of US\$200,000 or more will be subject to prior review. In addition the first three contracts below US\$200,000 will be subject to prior review. For small works below US\$50,000, the first three contracts will be subject to prior review.

**Goods** contract estimated to cost the equivalent of US\$150,000 or more will be subject to prior review. In addition the first three contracts below US\$150,000 will be subject to prior review.

**Community-based procurement** Contract for subproject estimated to cost the equivalent of US\$50,000 or more will be subject to IDA prior review. In addition, the first five contracts under community-based procurement below US\$50,000 will be subject to IDA prior review.

**Consultant services.** All terms of reference and all single source selection regardless of contract cost, will be subject to prior review. Contract estimated to cost the equivalent of US\$ 50,000 or more for individuals and the equivalent of US\$100,000 or more for firms will be subject to prior review procedures.

All other contracts will be subject to post review by IDA during implementation support mission and by auditors during the technical audits.

**Table A: Procurement Costs by Procurement Arrangements**  
(US\$ thousands equivalent)

<b>Expenditure Category</b>	<b>ICB</b>	<b>NCB</b>	<b>Method 1/ Other 2/</b>	<b>N.B.F.</b>	<b>Total Cost</b>
	<b>(IDA)(GEF)</b>	<b>(IDA)(GEF)</b>	<b>(IDA)(GEF)</b>	<b>(IDA)(GEF)</b>	<b>(IDA)(GEF)</b>
<b>1. Works</b>	0.00 (0.0)(0.0)	0.0 (0.0)(0.0)	267.2 (221.8)(0.0)	0.0 (0.0)	267.2 (221.8)(0.0)
<b>2. Goods</b>	1,249.5 (1,249.5)(0.0)	463.1 (372.4)(170.2)	258.1 (54.9)(0.0)	0.00 (0.0)(0.0)	1,970.6 (1,676.8)(176.2)
<b>3. Consultancy Services</b>	0.0 (0.0)(0.0)	0.0 (0.0)(0.0)	4,197.2 (2,937.8)(526.04)	0.0 (0.0)(0.0)	4,197.2 (2,937.8)(526.0)
<b>4. Training</b>	0.0 (0.0)(0.0)	0.0 (0.0)(0.0)	8,152.1 (4,949.1)(2,193.2)	0.0 (0.0)(0.00)	8,152.1 (4,949.1)(2,193.2)
<b>5. Grants (community subproject)</b>	0.0 (0.0)(0.0)	0.0 (0.0)(0.0)	26,110.1 (23,918.5)(2,100)	527.9 (0.0)(0.0)	26,638.0 (23,918.5)(2,100)
<b>6. Operating Costs</b>	0.0 (0.0)(0.0)	0.0 (0.0)(0.0)	762.1 (609.6)(0.0)	.0.0 (0.0)(0.0)	762.1 (609.6)(0)
<b>7. PPF</b>	1249.5 (1249.5)(0.0)	463.0 (372.4)(176.5)	40,346.980 (33,381.7)(4819.2)	527.9 (0.0)(0.0)	42,677.3 (35,003.6)(4995.7)
<b>Total</b>					

1/ Figures in parenthesis are the amounts to be financed by IDA Credit and GEF Grant. All costs include contingencies.

2/ Includes grants to communities, contribution of beneficiaries, subprojects, civil work and goods to be procured through shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to managing the project unit.

**Table A1: Consultant Selection Arrangements (optional)**  
(US\$ million equivalent)

<b>Consultancy Services</b>			<b>Selection</b>	<b>Method</b>				

<b>Expenditure Category</b>	<b>QCBS</b>	<b>QBS</b>	<b>SFB</b>	<b>LCS</b>	<b>CQ</b>	<b>Other</b>	<b>N.B.F.</b>	<b>Total Cost</b>
A. Firms	2.5 (2.5)	0.0 0.0	0.0 0.0	.0.3 (0.3)	4.8 (3.5)	0.0 0.0	0.0 0.0	7.6 (6.3)
B. Individuals	0.00	0.0	0.0	0.0	0.0	5.0 (4.2)	0.0	5.0 (4.2)
Total	2.5 (2.5)	0.0	0.0	0.3 (0.3)	4.8 (3.5)	5.0 (4.2)	0.0	12.6 (10.5)

1\ Including contingencies

Note: QCBS = Quality- and Cost-Based Selection  
QBS = Quality-based Selection  
SFB = Selection under a Fixed Budget  
LCS = Least-Cost Selection  
CQ = Selection Based on Consultants' Qualifications  
Other = Selection of individual consultants (per Section V of Consultants Guidelines), Commercial Practices, etc., Single-source Selection  
N.B.F. = Not Bank-financed  
Figures in parenthesis are the amounts to be financed by the Bank Credit and GEF Grant.

**Table B: Thresholds for Procurement Methods and Prior Review  
(Applicable to both the IDA Credit and GEF Grant)**

<b>Expenditure Category</b>	<b>Contract value (Threshold) (US\$ thousands)</b>	<b>Procurement Method</b>	<b>Contracts Subject to Prior Review</b>
1. Works	> or equal o 200	ICB	All contracts
	<200	NCB	First 3 contracts
	<50	Lump-sum, fixed price	Post review
2. Goods	> or equal to 150	ICB	All contracts
	<150	NCB	First 3 contracts
	<50	Shopping/IAPSO	Post review
	<50	SSS	All contracts
3. Services Firms	> or equal to 100	QCBS	All contracts
	<100	QCBS/CQ/LCS	Post review (except TORs)
Individuals	> or equal to 50	3 CVs/SSS	All contracts
	<50	SSS	All contracts
	<50	3 CVs	All contracts
4. Training, Study Tours, Workshops	Regardless of value	CQ/IC	Post review (except TORs) All contracts
5. Subproject	> or equal to 50	Community-based procurement as described in the PIM	All contracts
	<50		First five contracts All others post review

**Total value of contracts subject to prior review:** US\$20 million for the IDA Credit and US\$1 million for the GEF Grant)

**Overall Procurement Risk Assessment :** HIGH

**Frequency of procurement supervision missions proposed:** once every 6 months (includes special procurement supervision mission for post-review/audits)

### **Implementation support mission and technical audit**

During the first year of project activities, a Bank implementation support mission will be carried out once every four month during the two first years of project activities and thereafter once every six months provided the project performance permits. During these missions a selective post review of contracts awarded below the threshold will be apply to at least one in five contracts.

## Annex 9: Economic and Financial Analysis

### Financial Analysis

NPV = N/A; FRR= Varying (see Table 1)

Besides financing productive investments at the local level, the project is an investment in building capacity and sustainable institutions—private and public--at the grassroots level and different administrative levels. Consequently, the project has been designed to significantly increase funds available for economic endeavors of the rural population, especially poor men and women, as well as to achieve the maximum outcome at the lowest possible cost. Overall, the financial objective of the project is that quantitative and qualitative benefits should outweigh the investment costs.

For the other than directly-productive subcomponents the financial effects cannot be quantitatively determined with satisfactory accuracy. Thus, computing an overall financial rate of return (FRR) for the project has not been attempted. Financial benefits arising from the component that finance productive investments or support them directly allow FRR or NPV to be calculated for the main activities expected to be financed under the respective subcomponents (if a net profit is received already during the first year, NPV replaces the otherwise presented FRR). The farm models are based on conservative estimates of attainable changes in family households or farmer group activities, taking into account the subsistence nature and risk minimizing strategy, typical of the targeted groups of population. Such changes include progressive productivity increases and changes in prevailing cropping patterns. Family labor availability and required for the new activities were also considered in the farm budget models. The analysis is carried on a per-unit basis for farm enterprises (usually one hectare) or group operations for others. (Details of the calculations are in the PIM.)

**Table 1. Financial calculations for the main productive investments under the project (amounts in BIF)**

Model	Investment (BIF M)	Net Present Value ( BIF M)	FRR (%)
Pineapple processing	4.3	1.5	30.0
Apiculture	22.4	3.7	27.8
Cattle heard (10 heads)	10.0	16.6	37.5
Goat heard (11 heads)	0.1	0.3	27.3
Brick making	2.9	22.8	N/A
Pottery production	11.8	10.0	43.5
Irrigated vegetables (0.4 ha)	2.5	3.2	45.3
Production of farming tools	6.3	8.5	42.6
Seed potato production (1 ha)	13.2	4.2	29.9
Irrigated rice production (10 ha)	14.4	8.4	13.9
Yellow bean production (1 ha)		0.03	13.3
Groundnut production (1 ha)		0.2	19.2
Soya production (1 ha)		0.4	30.3
Tea collection shed	11.9	9.1	36.0
Coffee collection center		15.7	38.2
Poultry production (30 heads)	??	1.3	54.4

For comparison purposes, the average support that each benefiting PO will get from the funds intended to directly support agricultural income generation (support to productive investments, support to producer organizations, and agricultural extension program) has been computed to be for an average PO equivalent of US\$4,000 to US\$5,000. The support to a typical benefiting family (through a producer organization) will thus be equivalent of about US\$200.

### **Economic Analysis**

NPV= Burundi Franc 8,9 billion, at 12% discount rate; ERR = 33 percent

Because the financial benefits will not be quantified for the entire program, no overall economic rate of return (ERR) for the project will be computed. However, an ERR has been computed for the subcomponents that finance productive investments and support them directly. Economic and technical data, based on farm and enterprise models—also to be used as baseline for impact assessment—were collected in August-September 2003 (available in Project Files).

The ERR for productive investments has been computed by using a 20-year benefit period. The hypotheses used were the following:

- The net value is the total of additional production attained with the help of the project, after having deducted the costs of production.
- The total of the investment costs of the productive components (50 percent of project costs) have been estimated including physical and price contingencies. In addition, economic investment cost include the project administration cost (without which there will be no productive investments by the producer groups), and 50 percent of the capacity building, research and extension, and support agency investments, the rest having been estimated to provide long-term benefits not related to the productive investments made by producers groups.
- The number of beneficiaries will increase to 80,000 - 100,000 during the project period.

The adjustments made for the economic analysis mainly reflect the removal of taxes and subsidies and other economic distortions. While the project will increase on and off-farm employment in the rural areas, unemployment and under-employment will not be eliminated. Therefore, a conversion factor of 0.50 was used in the calculations to reflect the opportunity cost of unskilled labor. The policy reforms aiming at opening of the economy that started in the 1990s, together with the open market determination of the exchange rate, reflect fairly well its real value and lead to the conclusion that domestic prices tend to correspond to border economic values. Prices and exchange rates are in constant (September 2003) terms over the 20-year period of the analysis. The discount rate used was 12 percent.

Based on these hypotheses, the Net Present Value (NPV) of the project has been estimated at BF 12,558 billion. The benefit stream will turn positive from the 4th year onward, and the ERR for the productive investments will be 33 percent. (Details of the economic analysis are in PIM.)



The new emergency-assistance subcomponent (for returning refugees and IDPs) has not been included in the economic analysis. The Government calculations of the assistance needs and respective benefits are tentative, and on the cost side they include four times more funds per family than the value of the emergency package (seed, selected inputs and implements) that the project will finance. There are no calculations available for the benefits of a reduced emergency package and thus there is no basis for making assumptions that would allow including the emergency-assistance subcomponent in the economic analysis. However, although the production of the returning refugees and IDPs would be lower than that of the “settled” producers, the returning refugees and IDPs do not have “with-the-project” benefits that would need to be deducted to obtain net benefits. Thus, it can be assumed that the inclusion of the returning refugees and IDPs would not lower the EER otherwise computed.

A sensitivity analysis on the different variables is presented in the following table.

Sensitivity analysis by varying key variables is presented in the following table.

<b>Test</b>	<b>Change of Variable</b>	<b>ERR (%)</b>
Base case		33%
Test 2	10 percent reduction of costs	40%
Test 3	10 percent increase in production	39%
Test 4	10 percent reduction in production	27%

Numerous qualitative economic benefits (benefits accruing to the nation and its economy) can be identified as a consequence of the project, including: (a) increased monetization in the country, reflected in a reduction of barter; (b) increased efficiency in the productive rural sector, resulting from the amelioration of skills of farmers and the quality of staff in the producer organizations; (c) increased production and assets of low-income people, due to access to funds to finance their small local projects; (d) greater participation in the economy of marginal groups (poor men and women and isolated populations); and (e) enhanced knowledge of financial issues—including the importance of savings--among low-income families.

## Annex 10: Safeguard Policy Issues

### *Safeguard Policy Issues*

**OP 4.01 Environmental Assessment:** Under the auspices of the MAE, an environmental analysis (EA) was carried out by consultants in January 2004. The EA identified and assessed potential environmental and social impacts related to future sub-projects. As the exact types and locations of future sub-projects are not known at this time, the EA identified potential impacts that had been observed in similar projects. Thus, sub-project impacts could include water pollution and pesticide poisoning as a result of unsafe applications of pesticides to cash crops; an increase in water-related diseases due to an increase in small-scale irrigation infrastructures, including small dams; salinization due to the excessive use of fertilizers; changes in the river beds due to the removal of sand and gravel for construction purposes; the release of wastewaters from palm oil production into the rivers of Imbo Plain and subsequently into Lake Tanganyika; drying up of agricultural swamps if managed ineffectively; and overgrazing and destruction of irrigation infrastructures due to cattle movements.

The EA proposed the use of an environmental screening process for sub-projects to enable producer organizations, with the assistance of Local Implementation Agencies (LIAs), to identify and assess the potential impacts of their sub-projects and to prepare the appropriate mitigation measures, including carrying out of environmental analyses, if necessary. Towards this end, the project will provide support for capacity building, including in the areas of pest management, the management of irrigation-infrastructures, and environmental assessment of sub-projects.

As regards the institutional arrangements for environmental management, the EA recommended that the technical and human capacities at MATET be strengthened. More specifically, the EA recommended that the institutional capacity of the Direction de l'Environnement et du Tourisme be strengthened through the provision of environmental assessment training for three of the five engineers who are currently staffing this office. Such training would enhance their ability to play an effective role in the review and clearance of EA reports and environmental screening results of future sub-projects, particularly those that involve the rehabilitation of irrigation infrastructure, the treatment of wastewater from palm oil production in the Imbo Plain, and the use of pesticides, particularly for cash crops. The training would cover topics such as sustainable environmental management, environmental assessment procedures, environmental legislation, or the management of environmental data bases. Furthermore, the Code de l'Environnement, Art. 52, 53, 54, requires that all works related to water management structures are subject to environmental assessment and cannot be implemented without the approval of the Ministry of Environment.

To further strengthen the EA capacity of the Direction de l'Environnement during project implementation, the EA report recommended that an Environmental Specialist be hired by the project. This Environmental Specialist would be responsible for environmental issues under the project, the preparation of terms of reference, the follow-up to environmental studies, training of the producer organizations and other partners under the project.

These recommendations were discussed with representatives of the MATET, and both, the EA recommendations and their suggestions have been incorporated into the project. Thus, the project proposes to support the development of textes d'application of environmental assessment procedures. Articles 21-27 of the Environment Code are referring to the requirement for environmental impact studies and environmental audits, however, clear guidance on how to apply these requirements is lacking. Thus, the textes d'application should define national directives, prepare sectoral guidance, provide a list of activities or projects which require environmental assessment prior to implementation, how to categorize these projects, and how public consultations would be carried out in the environmental assessment process.

As discussed during the appraisal mission, the project would also provide support for (i) the development of national environmental norms and procedures as well as related training for current staff to train them in the interpretation and analysis of such norms; potential training locations would be Tunisia, Benin, Kenya; and (ii) the purchase of equipment, computers, printers for the Environmental Information Center (Direction de l'Environnement et du Tourisme) which is currently lacking the necessary resources to fulfill its mandate; as well as relevant training for staff to train them in the interpretation of environmental data and the use of the necessary equipment.

The project would also provide support to the Direction du Genie Rural et de la Protection du Patrimoine Foncier(DGRPPF) of the MATET to ensure that the small-scale irrigation infrastructures, including small dams, are managed effectively under the project. Thus, the project would fund (i) the recruitment of two specialists who will be responsible for training producer organizations in the management of small dams and small-scale irrigation infrastructures; and (ii) short-term training in the management of irrigation infrastructures (three weeks) for about 30 persons (technical personnel from the DPAAE and DGR&PPF, consultants, private enterprises, firms carrying out studies, LIAs, service providers) who in turn would train the producer organizations in this field.

Consultations during preparation of the environmental analysis report were carried out with producer organizations, representatives of associations, technical services and ministries, national experts. The EA report noted that producer organizations are currently weak and will need significant organizational and professional support. In June 2003, the project had carried out a workshop designed to inform the public about its objectives, its preparation status, to obtain the views and opinions of the participants and to formulate recommendations designed to address rural development constraints and to improve project preparation.

To enhance coordination between the MATET and MAE during project implementation, it has been proposed to hire an Environmental Specialist, as was also proposed in the EA. The key to effective coordination within the project as well as between both ministries, will be the appointment of a qualified Environmental Specialist to the NPCMU. This person would be responsible for (a) reviewing the environmental screening results of the sub-projects submitted for funding and determining whether or not additional environmental work will be required; (b) coordinating the collection and analysis of environmental monitoring data carried out at the DPAAE; (c) review the environmental monitoring results that will be transferred to the Environmental Information Center, Direction de l'Environnement et du Tourisme; (d) advise the project on environmental management issues as required; and (e) liaise closely with the Director of the Direction de l'Environnement et du Tourisme who will be the focal point for the project within the MATET. The focal point, in turn, will report to

the Directeur of the Direction Generale de l'Amenagement du Territoire, de l'Environnement et du Tourisme, who, in turn, is the Vice-President of the NSC.

**OP 4.09 Pest Management:** The PMP describes the current practices and policies of pest management, including the handling of pesticides and steps taken towards the development of biological pest control. The PMP also highlights the dangers of unsafe pesticide application, particularly in view of the fact that the majority of the population are unable to read. Pesticides are used extensively on export crops such as cotton, coffee, irrigated rice, tobacco, and sugar cane and therefore pose the greatest danger to the population and the environment. Pesticides are used sparingly for food crops, primarily because the farmers cannot afford their purchase. Nevertheless, pesticides are used incorrectly on crops such as tomatoes, first in powder form during the growing season to kill pests, and after the harvest in liquid form to extend their shelf lives. Some farmers use pesticides to protect their maize and bean crops from pests.

The PMP, which was prepared in consultation with representatives of associations and technical ministries as part of the EA, recommends, among other things, (i) training of producer organizations in integrated pest management and safe handling of pesticides; (ii) support for research in integrated pest management, including training of professionals at the DPAE and provision of equipment for research; (iii) and dissemination of literature and information on integrated pest management through the ISABU. The project would implement the recommendations of the PMP with a focus on producer organizations and local communities.

**OP 4.37 Safety of Dams:** In the course of preparing the EA, the consultants visited areas of the country that operate small-scale irrigation infrastructures, including small dams. The consultants held meetings with representatives of the local agencies and associations, and noted that, so far, the government has given its support primarily to (i) medium- and large-scale perimeters for rice production in Imbo Plain (Mpanda-East, Mugerero and Rukaramu), covering a total area of 4,785 ha, which are managed by the Societe Regionale de Developpement de l'Imbo (SRDI); (ii) irrigation perimeters for sugar cane in the plain of the Malagarazi of Moso, a total of 1,500 ha which are managed by the Societe Sucriere du Moso (SOSUMO); and (iii) small perimeters in the swamps and flood plains (small scale) which are managed across the country to increase the production of food crops such as rice, maize, beans, potatoes, covering a total area of 4,649 ha. All these areas contain small dams and small-scale irrigation infrastructures.

The generic dam safety analysis proposed a number mitigation measures that would have to be implemented by professionals. It also outlines the steps to be taken for studies to be carried out prior to locating the irrigation infrastructures. The EA noted that effective water management was critical for improved production among producer organizations, including in the centers that produce seeds.

During discussions with the Direction de l'Amenagement des Territoires, de l'Environnement et du Tourisme and the DGRPPF it became clear that the preferred institutional arrangement for the management of small dams and other water management structures under the project would be one where the Cellule Genie Rural Provincial of the Services d'Amenagement Hydro-agricole, Gitega, works closely with the DPAEs. It was considered important to provide short term training for staff of the afore-mentioned Genie rural and the DPAEs. For

proposed capacity building arrangements see relevant section under OP 4.01 Environmental Assessment.

**OP 4.12 Involuntary Resettlement:** Since there is a likelihood for land acquisition for sub-projects, the project has prepared a Resettlement Policy Framework (RPF). It was prepared as part of the EA report, and people have been informed about this RPF in the context of meetings and workshops. This RPF outlines principles and procedures that will be applied in the event that land acquisition will be necessary. It will be used in conjunction with the environmental screening process referred to earlier, thus giving producer organizations and others the opportunity to decide whether or not they should proceed with the sub-project in the face of land acquisition. The resulting compensation would have to be paid out of the sub-project.

**OP 7.50 Projects on International Waters:** The notification of riparians is being carried out consistent with the requirements of this legal safeguards policy.

## **Annex 11: Incremental Cost Analysis**

This annex includes a brief review of the environmental situation in Burundi, with focus on land degradation; project development goals and global environmental objectives, the baseline scenario without GEF financing versus the alternative scenario of an IDA-GEF blended project and presents the incremental cost analysis.

### **The Environmental Situation in Burundi**

An analysis of the effects of the crisis on the environment was conducted and that led to the development of the National Program for the Restoration and Management of the Environment by the Ministry of Land Management, Environment and Tourism (MINATE) in collaboration with UNDP and FAO. The renewed strategy assesses the state of environment and natural resources, the threats they face and the socio-economic pressures underlying those threats. The strategy makes explicit that inclusion of environmental services as a factor in decisions regarding land use and emphasizes sustainable approaches to production.

Extremely high demand for land, as a result of population pressures, land scarcity and declining soil fertility in agriculturally productive areas has resulted in increasing land fragmentation, cultivation on steep slopes and in marginal lands and conversion to agriculture of ecosystems such as marshes, swamps, forests, and watersheds. Agricultural lands are overexploited and farming methods are basic and unsustainable. Soil erosion and siltation of rivers in the Nile and Congo basin watersheds and of Lake Tanganyika has increased due to deforestation and watershed degradation, threatening biodiversity and other ecosystem services. Adverse policy incentives, lack of sound property rights and long term investments in the land, and weak regulatory and enforcement authority are root causes while resource use planning is hampered by poor monitoring and lack of environmental and natural resource related data. The lack of food security and increased vulnerability to climatic pressures have exacerbated the degradation of the natural resources.

### **PRASAB – Broad Development Goals**

The blended IDA-GEF project will help restore productive capacity and livelihoods in a country that is just emerging from severe conflict by revitalizing and diversifying its agricultural production on a sustainable basis through improved land use and enhanced environmental management. The proposed Agricultural Rehabilitation and Support Project (PRASAB) supports the strategies outlined in the Government of Burundi's Intermediate Growth and Poverty Reduction Strategy and the World Bank's Transitional Support Strategy (TSS).

GEF funds will supplement IDA financing and strive for incremental benefits accruing from establishing the basis for sustainable land management while fostering other global environmental benefits such as helping to maintain marsh and agricultural biodiversity as well as carbon sinks. The program will promote community directed micro-projects addressing land degradation, advancing sustainable agricultural systems and minimizing the encroachment and degradation of swamps, marshes and other wetlands through an integrated micro-watershed approach as well through related research and pilots, capacity building, and institutional strengthening. It will seek 'win-win' options in enhancing the ecological and economic value of land use. It will enhance the institutional and technical capacities of producer organizations, communities and government institutions related to reviving the rural sector.

The GEF OP15 allows for the funding of a wide range of land management activities so long as they are incremental to a defined baseline and will bring incremental benefits to the broader environment. In this demand-driven investment program involving several thousands of potential sub-projects the determination of incrementality and therefore suitability for support by GEF will be made during selection prior to approval. The M & E program will verify that the distinction is being maintained. OP15 will form the basis of these decisions as indicated in more detail in the PIM.

### **Global Environmental Objectives**

The root causes of pressures on Burundi's natural resources are multiple, complex and have a severe and rapid impact on the environment. While the Government of Burundi recognizes the need for an intervention to address land degradation in watersheds, promote sustainable land use, and improve the management of its swamps, marshes and other wetlands that are increasingly encroached for agriculture, it is severely constrained in financial, technical and human capacity.

The country lies at the headwaters of the Nile and Congo river basins and includes a significant part of the unique ecosystem of Lake Tanganyika. The global significance of the natural resources as well as the Government's lack of sufficient resources to combat these threats presents a strong case for GEF involvement. GEF involvement will enable the project to support sustainable land management activities that will scale up the successes of the FAO supported pilot program and coordinate with a complementary IFAD program. Introduction of improved land use and agricultural practices, and soil and water management measures are expected to help sustain livelihoods, reduce pressure on swamps, marshlands and other wetlands, conserve on-farm and wetland biodiversity, prevent loss of and/or improve habitats, help maintain hydrological cycles affecting global water resources such as Lake Tanganyika, and contribute positively to carbon storage in wetland sinks. Global benefits accruing from project activities will also help Burundi in meeting some of its global environmental obligations as represented by its participation in international environmental conventions:

- Convention on Biological Diversity ratified on April 15, 1997
- United Nations Convention to Combat Desertification ratified on January 06, 1997
- Contracting party to the Ramsar Convention on Wetlands in October 10, 2002
- United Nations Framework Convention on Climate Change ratified on January 06, 1997

Burundi developed its first National Environment Strategy in 1992-93 at which point the socio-political crisis intervened. It was subsequently finalized in 1997 when Burundi ratified the UN conventions on biological diversity, climate change and desertification. The national Environment Law was adopted in June 2000. Since the crisis, there has been an effort to establish a program that would begin the strategy implementation.. This effort is constrained by the lack of resources and capacity. Burundi has moved on the UNCCD priorities and has drafted a national action plan to combat land degradation. The proposed project activities are to be fully supportive of the priorities as being outlined by the NAP, especially the development of the National Land use and Management plan, related capacity building and support to environmental monitoring. The NAP seeks to integrate and harmonize the various initiatives addressing land degradation as a part of different rural development activities

under a coherent program. It also seeks to coordinate between the various stakeholders and evolve the program against land degradation in a consultative way.

Burundi is a member of the Nile River Basin Initiative and the government recognizes the significance of its wetlands' hydrological functions. It became a member of the Ramsar Convention on wetlands in 2002. While the environment strategy notes the use of wetlands (*marais*) in production, both agriculture in dry periods and for artisanal raw materials extraction, it cautions for a sustainable approach. It also includes in its objectives the need to protect certain wetland areas in their natural state thus preserving their environmental functions (ecological and hydrological).

It will strengthen the Government's partnership with other donors, mobilize further donor financing and provide incremental resources that the country could not otherwise obtain to address environmental externalities (specifically the role and impacts of activities in Burundi on the transboundary lake resources. Not only does land use in this region affect the hydrology of the lake systems but there is also a potential that effluents are responsible for the decay in the lakes. The issue of whether the increasing phosphorus, which increases the growth of algae, in Lake Victoria could have been a result of increased burning of in neighboring countries including Burundi is still being studied) and promote environmentally sound development in the rural sector.

The Burundian government recognizes the importance of biodiversity conservation and management and has developed a National Biodiversity Strategy and Action Plan with the support of GEF/UNDP. This strategy lays out eight courses of action: conservation of biodiversity; sustainable use of biological resources; equitable sharing of the responsibility and benefits of biodiversity management; biotechnology, public education and awareness building; research; impact studies and reduction of harmful effects; and cooperation and information exchange.

### **Baseline Scenario – An IDA only PRASAB**

Following the recent peace settlement, the baseline activities are only now beginning to pick up significantly. Prominent among these is the proposed IDA loan of \$35.0 million for the PRASAB.

The immediate priority of the government is the revival of the agriculture sector in order to ensure basic food security and the rehabilitation of the several thousands of displaced persons returning since the cessation of major conflict. Under these circumstances, the government, which is hampered severely by financial and human capacity constraints, is focusing on the near term priorities with regard to borrowing.

In the baseline – IDA only PRASAB, the focus is on quick-starting increased agricultural production, with the objective being to help farmers in the project areas realize benefits from production investments through capacity building in Producer organizations (producer organizations) and with the help of new skills, information and appropriate technologies. The beneficiaries will also include war-distressed returnees and internally displaced persons.

The main elements of this program are investments in the agriculture sector targeted to increasing production, capacity building mainly oriented at production and marketing and institutional strengthening of the ministry of agriculture and livestock to withdraw from direct



production, processing, and marketing of agricultural produce, and focus its mission on formulation of policy, planning, monitoring and evaluation, and collecting and distributing agricultural information. Support is to be provided to producer organizations for investments, through subprojects, in equipment and infrastructure related to producing cash and food-crops, agro-processing, livestock, irrigation etc., as well as the technical assistance required for effective planning and implementation of these subprojects. A sub-component involved coordination with and assistance to returnees to integrate into the agricultural sector and resume production. Also included is capacity strengthening of these producer organizations and of local implementing agencies that would support the design and development of the subprojects as well as institutional support to the Ministry of agriculture for changes to agri-marketing policies and institutions and for its decentralization process. Research is mainly focused on improving access for farmers to high-quality seeds and planting material. Support to the project management and coordination unit, located in the Ministry of Agriculture is also included.

The focus on environment sustainability of activities in the agricultural sector will be enhanced with GEF support. In the short term, the baseline situation will likely focus on production issues while GEF support will aid in addressing issues related to land degradation, primarily soil erosion, sedimentation, watershed degradation and encroachment of remaining wetlands. Given the policy gaps and implementation constraints this effectively implies that the country will have few mechanisms for dealing with the continuing threats faced by these natural resources.

#### **Alternative Scenario: The GEF Co-funded Alternative**

Under the GEF alternative scenario – the IDA financed PRASAB with co-financing by GEF – the global environmental objective is to promote a community driven integrated approach towards improved management of natural resources (including watersheds, wetlands, forests and agricultural land) in order to combat the critical land degradation problem. Overall goals will focus on the maintenance of critical ecosystem functions including hydrological cycles, nutrient cycling, and carbon sequestration. This will be accomplished while fostering multiple global benefits through maintenance of trans-boundary water systems (Nile and Congo basins), agro and wetland biodiversity (including the preservation and sustainable management of critical habitat for a broad range of bird species) and carbon sinks.

Soil erosion is a chronic problem throughout the country. Deforestation and soil erosion can lead to increased sedimentation and greater flood risk downstream, while sediments also accumulate in wetlands and reservoirs. Dust blowing from degraded lands increases nutrients levels in lake waters, encouraging algal growth. Water hyacinth and other invasive aquatic weeds are spreading through many waterways in Burundi. Agriculture is increasingly invading the wetlands and remaining forests, while national legislation and the land tenure laws actually encourage the draining of marshes. For local stakeholders, tenure is often unclear and access to resources inadequate. Producers struggling to grow enough to feed their families on deteriorating soils have little ability to invest in long term measures to maintain their land. Relatively few local stakeholders have access to adequate means of communication, therefore lack of awareness and understanding of the environmental consequences of agriculture related decisions is a major barrier to strengthening eco-friendly agriculture.

Continuation of only baseline activities would limit Burundi's ability to continue its objective of increasing productivity over the long term without addressing the issues of land

degradation, the cost of which will also increase over time. The trend of declining soil fertility and the lack of financial resources combines to intensify the pressures of agriculture on steep slopes and in marshes and swamps, the last remaining areas of arable land. Immediate steps need to be taken to ensure that a basis is created on which to build sustained land management and planning programs. Thus in this blended operation, IDA and GEF play complementary roles – the IDA loan will support a quick start approach aimed at immediate needs of increasing production and rehabilitating the sector and returnees while the GEF grant will be used to strive to enhance the longer term (and transboundary) benefits of environmentally sound agricultural practices, land use, and natural resource management.

In addition to activities supported under the baseline scenario, the GEF alternate will include support to the three components:

a) *Grants for sub-projects:* The project will finance subprojects initiated by producer organizations and local communities through a participative process. The types of subprojects may include, for example (i) provision of selected planting material, bean floating tanks, and scales for coffee producers (Ngozi, Kirundo, Muyinga); (ii) cooling tanks and generators for milk producer groups (Mwaro, Muramvya, Ngozi, Kirundo); (iii) artisanal crushing units for sunflower (Kirundo) and soya (Gitega) seeds and improved planting materials; (iv) selected palm tree plants and associated cover plants (pueraria) and small equipment for palm's producer organizations around Rumongere industrial plant (Bururi, Makamba); (v) equipment for PO nurseries (coffee, palm trees, food crops, etc.); (vi) small-scale irrigated horticulture and low-cost irrigation equipment; (vii) rehabilitation of the livestock sector by scaling up the FAO's pilot "solidarity chains" program and artificial insemination activities (Muyinga, Ngozi); (viii) modern beehives and beekeeping equipment such as extractors and helmets (Kirundo, Ngozi, Bubanza); (ix) non-farm income generating activities (handicrafts, repair facilities of agricultural tools, brick and tile-making, carpentry, tailoring); and (x) development of vegetable and foodcrop production in improved swamps and along the canal in Kajeke (Bubanza). GEF resources would provide incremental financing for above investments for (xi) improved micro-watershed management; soil management practices such as conservation tillage and prevention of soil erosion and runoffs; renewal of degraded hillsides, woodlands and pastures with reliance on native species and through agroforestry, community woodlots, and ecologically sound terraces; and sustainable water management including application of conservation tillage systems, crop cover, windbreaks, grassed waterways, riparian buffer zones, filter strips to reduce water and wind erosion. Some of the activities supported are the construction of windbreaks, grassed waterways, riparian buffer zones, crop cover, and filter strips to reduce water and wind erosion.

The details of subprojects to be supported through project funds will not be determined in advance because of the demand-driven approach of PRASAB. Instead the approach involves considerable participation of producers and communities in prioritizing critical areas for investment. Producer groups and local communities are the main beneficiaries and are of a wide variety, have at least 10 members, and include cooperatives, associations, groups of farmers and/or livestock breeders and non-farm producer organizations. GEF supported grants will be available for incremental sustainable land management activities that are clearly identified in subproject requests, supported by proposed indicators that are acceptable to measure their success. Incorporation of clearly identified SLM activities in subproject proposals will be a desirable criteria in the selection of PO subprojects and a requirement for those over \$5,000. The financing will be provided as grants, with an upfront beneficiary contribution (cash or kind) of at least 5 percent of the subproject costs.

It is expected that the producer organizations and local communities benefiting from PRASAB will have implemented, by the end of the project, about 4,000 subprojects affecting some 80,000 to 100,000 families.

*Capacity building, targeted research and institutional strengthening.*

The project will enhance the access to information and capacity of producer organizations (POs) and local communities (local communities). Support will be provided for strengthening local community participation, through renewal of local networks and cooperative relationships that had frayed in the conflict years. Other activities include: (i) strengthening the organizational, technical and management capacities of local communities and POs; (ii) ensuring LC and PO representation in the project's steering committees and decision-making processes; (iii) developing professional and inter-professional organizations for better management of key agricultural sub-sectors, and (iv) promoting an understanding of the broader environmental management issues related to land degradation and swamp land utilization and benefits.

Capacity building of the producer organizations and local communities will be based on demand, linked to their productive investment subprojects and offered by contracted LIAs. The component will support in-country training, workshops and study tours for managers and committee members of producer organizations and local communities.

The benefiting producer organizations and local communities generally will be grassroots-level organizations, but the project may also assist the capacity building of vertical organizations already existing or ones to be established by producer organizations or local communities. GEF support will be provided to strengthen the capacities of farmers and communities to manage natural resources sustainably, access knowledge on improved methods, use indigenous and local knowledge and native species and implement agricultural systems that enhance agro-biodiversity etc.

This subcomponent will also strengthen, when necessary, the capacity of Local Implementing Agencies (LIAs), to enable them to provide services to producer organizations and local communities. LIAs will also provide information regarding project activities and processes (obtaining funds, reporting) to the groups. A capacity assessment of LIAs will be conducted by NPCMU prior to negotiation and a training plan will be developed to address gaps in organizational, technical, financial, and business skills through training, workshops, and study tours.

GEF will support the strengthening of capacity of implementing agencies and service providers including DPAEs (provincial agriculture and livestock departments), local and international NGOs and rural micro-finance institutions, cooperatives, producers' apex organizations and private enterprises in the rural sector through training in techniques of sustainable agriculture and improved ecosystem management. The SLM program will develop and deliver education and awareness programs that emphasize the way in which environmental issues reflect on, and are affected by, agricultural production; as well as ways in which long term productivity can be maintained and enhanced through the use of environment-friendly techniques.

The project with GEF funds will support specific building of institutional capacity in Ministries of Agriculture (MAE) and Environment (MATET) both ministries at the central and decentralized levels, on the basis of the recommendations of studies that will analyze the capacity of both institutional and human resources and make proposals to amend the situation.

Institutional development will help key public agencies assimilate the ideas of sustainable land management in its policies and activities through improvements in natural resource use planning, monitoring and coordination, and improvement of environmental management processes. The project will support the development of a **national land use and management plan**, beginning with studies in two provinces, Bubanza and Kirundo, where there are a number of significant marais as well as important land management issues to be addressed.

The SLM component will involve training of extension agents and encourage the use of integrated production systems that are also environmentally sustainable (involving for instance fish ponds, integrated nutrient management etc) among, farmers and producer organizations. The project proposes to strengthen the DPAE to: Systematically train teams with responsibility in the PRASAB project area, at the local level, on modern land management methods.

- Train the forest technicians in agro-forestry techniques.
- Train the rural engineers in wetland management.
- Train key farmers in each colline area on modern land management methods.
- Train the forest inspectors in modern land management methods

The project also proposes to strengthen information management to support decision-making on sustainable land management, by strengthening the Direction du Génie Rural et de la Protection du Patrimoine Foncier (DGR/MATET) at the national level.

- Train staff in environmental concepts of wetlands management.

In order to strengthen the capacity for integrated land use planning and implementation, including land degradation analysis at the national level the project proposes:.

- Strengthening of the Direction de l'Environnement (DE/MATET)
- Develop the National Framework for Evaluation of Land Degradation, including update of GIS systems, participatory institutional mechanisms to ensure collaboration of ISABU, IRAZ, DPAE, IGEBU, INECN, and consider the creation of a National Land Management Institute.

The project proposes to enhance the capacity at the Direction de l'Environnement et du Tourisme of MATET through (i) support of a geographic information system (SIG) that currently lacks sufficient qualified personnel and equipment and is needed to support the incremental aspects of the project; (ii) environmental assessment training for five staff members; (iii) support for the Project Environmental Specialist from an international consultant and (iv) the provision of training with regard to the development of environmental norms and procedures for Burundi.

Given the limited research capacity in the country and the specific needs of the producer organizations and local communities, the project will support focused short-term (two to three years) applied research aimed at finding appropriate solutions to constraints to agricultural productivity. The project interventions will complement the assistance provided

by the Belgian Technical Cooperation, which helped rehabilitate research infrastructure and equipment (ISABU), support continued education, training and study tours and workshops for researchers. GEF incremental funding will be used to strengthen the quality of research and reinforce the focus on environmentally sustainable land management and the reduction of soil and land degradation. Integrating conservation farming and increasing productivity in existing farming systems, improved water management, species mix, integrated pest management and integrated nutrient management are some areas that will be studied, tested and applied in pilots, with results disseminated to communities and producer organizations.

Targeted research will initially focus on partnerships with small farmers, pastoralists, and other natural resource users and stakeholders to demonstrate under field conditions: cost-effective agronomic practices to improve soil fertility management as alternatives to shifting agriculture; tillage methods that have minimal impacts on soil structure and improve soil and water conservation; and systems to improve livestock production in areas with limited rangeland/pasture.

Targeted research will also support the development of analytical tools and frameworks to assess the benefits of early intervention to prevent or control degradation, as well as the status of land use types in the project areas. In this connection the following specific applied research subjects are proposed for a reinvigorated ISABU.

GEF resources will support targeted research in support of sustainable land management with an emphasis on field testing and distribution of packages including:

- Agricultural practices that improve the fertility and physical and chemical conditions of the soil as well as of systems that intensify fodder production to vounter the problem of overgrazing,
- Woody species that are economically valuable and cause less soil degradation than agricultural crops (trees for fodder, fuel wood, construction timber, fruit, medicinal plants, etc) and,
- Assessment of the economic impact of land degradation in the agro-ecological zones of PRASAB and the benefits of early intervention to prevent or control degradation.

c) *Project administration and monitoring* component would help support the NPCMU in coordinating and managing SLM activities with MINATE and provincial PCMUs. The NPCMU will act as a champion through its measurement of progress in SLM activities and the tracking of their implementation.

## Incremental Cost Analysis Matrix

The incremental costs are calculated as the difference between the GEF alternative scenario and the PRASAB baseline scenario. The results are presented in the matrix below.

The costs of the proposed actions are over and above those incurred or planned by Burundi to increase its agricultural production. The incremental cost, by which the alternative scenario exceeds the costs of the baseline situation, is estimated at US\$ 5 million.

**Table 1: Incremental cost matrix for GEF funding**

Component	Cost Category	Cost US\$M	Domestic Benefits	Global Benefits		
1. Support for productive and land management sub-projects	Baseline	<u>27.35</u>	Grants to producer organization for investments in agriculture production of food and cash crops; increased incomes and food security Rehabilitation of returnees with provision of agricultural livelihoods	Increased stability and reduction in poverty is likely to indirectly have minor environmental benefits through marginal investments in land, albeit over a longer time frame		
	of which					
	Prod. inv.	8.65				
	SLM inv.	4.90				
	Support services	2.46				
	Emergency support	10.00				
	Govt. Beneficiaries	0.52				
		0.82				
	GEF alternative	<u>30.35</u>			Provides communities with immediate options to address land degradation that threatens agricultural productivity; community initiated projects and participatory approaches strengthens decentralized management of natural resources and local benefits	Efforts to address land degradation help maintain global values of trans-boundary water resources, conserve natural habitats and on farm and wetland biodiversity and preserve forest and wetland carbon sinks Substantial improvement in the ability of relevant agencies to meet global environment commitments
	of which					
Prod. inv.	8.65					
SLM inv.	7.00					
Support services	3.36					
Emergency support	10.00					
Govt. Beneficiaries	0.52					
	0.82					
Increment		<b>3.00</b>				

2. Capacity building, targeted research, and institutional strengthening	Baseline of which	<u>5.29</u>	Capacity enhancement of agricultural sector at three levels – producer organizations, implementing agencies, including DPAEs and provincial project unit staff, NGOs, and private sector operators; improved service delivery; research on improved techniques and inputs; institutional support for planning and monitoring agricultural policy	Minor environmental benefits may accrue over time with decentralization and efficiency gains as a result of withdrawal of government from direct production and marketing
	Capacity building at	4.47		
	commune	0.36		
	provincial	0.16		
	MAE and MATET	0.94		
Research	3.01			
	Govt.	0.82		

	<p>GEF alternative of which Capacity building at commune provincial MAE and MATET Research</p> <p>Govt.</p>	<p><u>7.29</u></p> <p>6.47</p> <p>0.82</p> <p>0.44</p> <p>1.89</p> <p>3.32</p> <p>0.82</p>	<p>In addition to above benefits, longer term perspective and strategic planning elements introduced to land management through support for national land management plan and capacity enhancement for environment monitoring at MINATET. Agricultural production on a more sustainable basis implying lower long-run costs to producers and lower vulnerability to communities; Community-based approach put development agenda in local hands</p>	<p>Substantial benefits as a result of increased capacity of communities to design and implement micro-projects; availability of agri-eco technological packages and services; research and monitoring of ecosystem health; and mainstreaming of sustainable land management issues into agricultural and cross-sectoral policies and programs project lessons will also be available for wider application, especially in regional areas with similar ecological features; transboundary partnerships for research, information sharing and resource management will be strengthened.</p>
	Increment	<b>2.00</b>		
3. Project Coordination and Monitoring	Baseline of which Govt.	<p><u>5.31</u></p> <p>0.81</p>	<p>Efficient and capable staff in place to manage and coordinate project activities largely focused on agriculture production issues</p> <p>Little coordination with Environment institutions</p>	<p>Minor global environmental benefits arising from application of environmental safeguards</p>



	GEF alternative of which Govt.	<u>5.31</u>  0.81	Efficient and capable staff in place, including environmental specialists, to manage and coordinate issues at multiple levels. NPCMU to act as champion of SLM activities and focal point for information sharing.	Integrated management on local, provincial and national levels leading to basis for regional and trans-boundary cooperation on management of natural resources, potentially with Rwanda and Nile basin countries
	Increment	0.00		
Totals	Baseline	37.95		
	GEF alternative	<u>42.95</u>		
	Increment	<b>5.00</b>		

In addition, there are several other related projects that are ongoing and in preparation. Significant among these are: (i) Social Funds II, that can coordinate the community development in PRASAB provinces (organization of CDCs); (ii) Emergency Rehabilitation Credit (ERC) – provision of counterpart funding, from its agriculture, rural development and environmental management components; (iii) MDRP – coordination of repatriation of returnees; (iv) IFAD: the ongoing Rural recovery and Development program (USD 34.2 million) and the planned Post-conflict reconstruction program (USD 30 million) – this program is complementary to PRASAB and will operate in 6 non-PRASAB provinces and shares 1 province (Bururi) with PRASAB operations (v) Nile transboundary environmental action project (planned) – potential for transboundary management of wetlands with Rwanda (in the south of Rwanda and in the Kirundo province in Burundi; linkages with ongoing project on integrated ecosystem management in Rwanda), with Congo of Rusizi delta reserve, currently established only on paper, (300 ha) bordering Lake Tanganyika on its north shore that extends into Congo (IUCN is currently trying to delimit this area).

## **Annex 12A: Assessment of Land Degradation and Sustainable Land Management Options**

### **GEF Operational Program on Sustainable Land Management**

The interventions promoted by PRASAB are designed to have a major impact on Burundi's agriculture and rural population, in terms of increased production, improved livelihoods, and sustainable land resource management. The incremental PRASAB activities funded by the GEF Operational Program on Sustainable Land Management (OP15 - SLM) in particular focus on the land resource base and on combating land degradation.

In 2002, land degradation was designated a focal area of the GEF and sustainable land management became a primary focus of GEF assistance to achieve global environment benefits within the context of sustainable development. OP15 - SLM operationalizes land degradation as a GEF focal area and provides guidelines for the development of activities eligible for GEF incremental financing to address the root causes and negative impacts of land degradation.

The assessment of land degradation and sustainable land management options covered in this annex directly supports the vision and objectives of OP15 - SLM. The annex provides a framework for assessment of land degradation that is especially designed for PRASAB and other programs of a similar nature. The framework helps to ensure that PRASAB project activities and the relatively modest GEF-funded incremental actions will be most effective vis-à-vis the serious land degradation problems that face Burundi.

**The main direct cause of land degradation in Burundi is inappropriate land use, mainly unsustainable agricultural practices and overgrazing, and, to a lesser extent at this point, deforestation.** Poverty, overpopulation, conditions of instability, and lack of alternative income options are among the key root causes of degradation. The negative impacts of degradation are no different than anywhere else: physical damage to soils or even complete loss of soils, and depletion of soil fertility or other chemical forms of soil degradation.

The GEF will establish scientifically recognized methodologies to measure the incremental impacts of sustainable land management activities on the preservation or rehabilitation of stability, functions, and services of land and on livelihoods. The monitoring framework will include indicators to measure both the global environment and sustainable development impacts of GEF-supported activities.

Below is an outline of the PRASAB methodology for measuring the impacts of the sustainable land management activities initiated by the PRASAB project. Should a general GEF methodology for measuring incremental impacts of sustainable land management activities become available, then the monitoring and evaluation system designed for PRASAB interventions will be adjusted accordingly.

The PRASAB framework comprises two parallel assessment approaches, one at the national level and one at the local level (commune or watershed level). Each assessment approach involves

- (1) assessment of base line conditions of land degradation,
- (2) identification of optimum solutions to combat land degradation, and

(3) evaluation of the impacts of PRASAB/GEF interventions on land degradation.

**Table 1 Burundi - Baseline situation of land resources and land degradation by agro-ecological zone**

Agro-ecological zone		Western Plains	Western Escarpment	Congo - Nile Divide	Central Plateau	Depressional Areas (east)
Natural region		Imbo	Mumurwa	Mugamba	Buyensi, Kirimiro, Bututsi	Bugesera, Bweru, Buyogoma, Moso, Buragane
Provinces where PRASAB will be active		Bubanza, Bururi, Makamba	Bubanza, Bururi	Muramvya, Mwaro, Bururi	Ngozi, Muramvya, Mwaro	Kirundo, Muyinga, Cankuzo, Rutana, Makamba
<b>Main land degradation issue</b>		<b>Salinization</b>	<b>Loss of farmland due to erosion</b>	<b>Loss of pastureland due to erosion.</b> <b>Loss of soil fertility</b>	<b>Loss of soil fertility</b>	<b>Lack of soil moisture</b>
Land parameters	Indicators					
Evidence of land degradation	<i>Degradation of land cover</i>	Degradation of the Rusizi Reserve.		Degradation of Forest Reserves		Degradation of protected areas
	<i>Physical/land degradation</i>	Degradation of the riparian lands of Lake Tanganyika and of streams	Major loss of farmland due to gully erosion as a result of agricultural practices not adapted to steep slopes	Major loss of pastureland due to erosion as a result of overgrazing	Moderate loss of farmland due to erosion as a result of agric. practices. Drying up of wetlands.	Decrease of available soil moisture for agriculture due to increasing duration of dry season
	Chemical land degradation	Salinization of irrigated lands		Deteriorating soil acidity	Loss of OM and plant nutrients in soil due to over-exploitation	
	<i>Sediment load of streams</i>	High	High	Low	?	?
Land resource base						
Dimension	Land area (ha)	194 000	270 000	410 000	1 237 000	670 000
	% of total land area	7	10	15	44	24
	Cultivated area (%)	20	25 +	25	50 +	25
	Population density	125	175	150	250	100
	Agriculture	Dominant	Dominant	Dominant	Dominant	Dominant
	Livestock	Dominant				
	Slopes	Weak	Steep – very steep	Moderate – steep	Moderate – steep	Weak – moderate
	Altitude	770-1000	1000-1750	1750-2600	1500-2300	1300-1800
	Rainfall (mm)	800	1000-1200	1400-1600	1250	1200
	Main kind of soils	Vertisols et fluvisols	Ferralsols et ferrisols	Ferralsols	Ferralsols	Vertisols et fluvisols
	Critical natural habitats	Rusizi Reserve	Kigwena Reserve	Kibira Forest Mpotso Nat. Forest Bururi Reserve		Ruvubu Reserve, Lake Rwhinda, Gisagara landscape

## National level baseline assessment

Burundi can be divided into five distinct agro-ecological zones (see map), known as Imbo, Mumirwa, Mugamba (Congo-Nile divide), Plateau Central, and Depressions orientales. Available information allows for national level baseline assessment of land resource conditions by agro-ecological zone. Key indicators, in terms of land area, current (agricultural) land use, critical natural habitats, and others are summarized in Table 1 below. The table also shows the key land degradation concerns in each of the five agro-ecological zones. PRASAB is concerned with each of the five agro-ecological zones as its intervention area (provinces selected) are distributed over the country; the project will therefore address the key concerns in each of the five agro-ecological zones. The table is based on a detailed review of the characteristics of Burundi's agro-ecological zones, with reports available at the project.

Map 1. Agro-ecological zones of Burundi

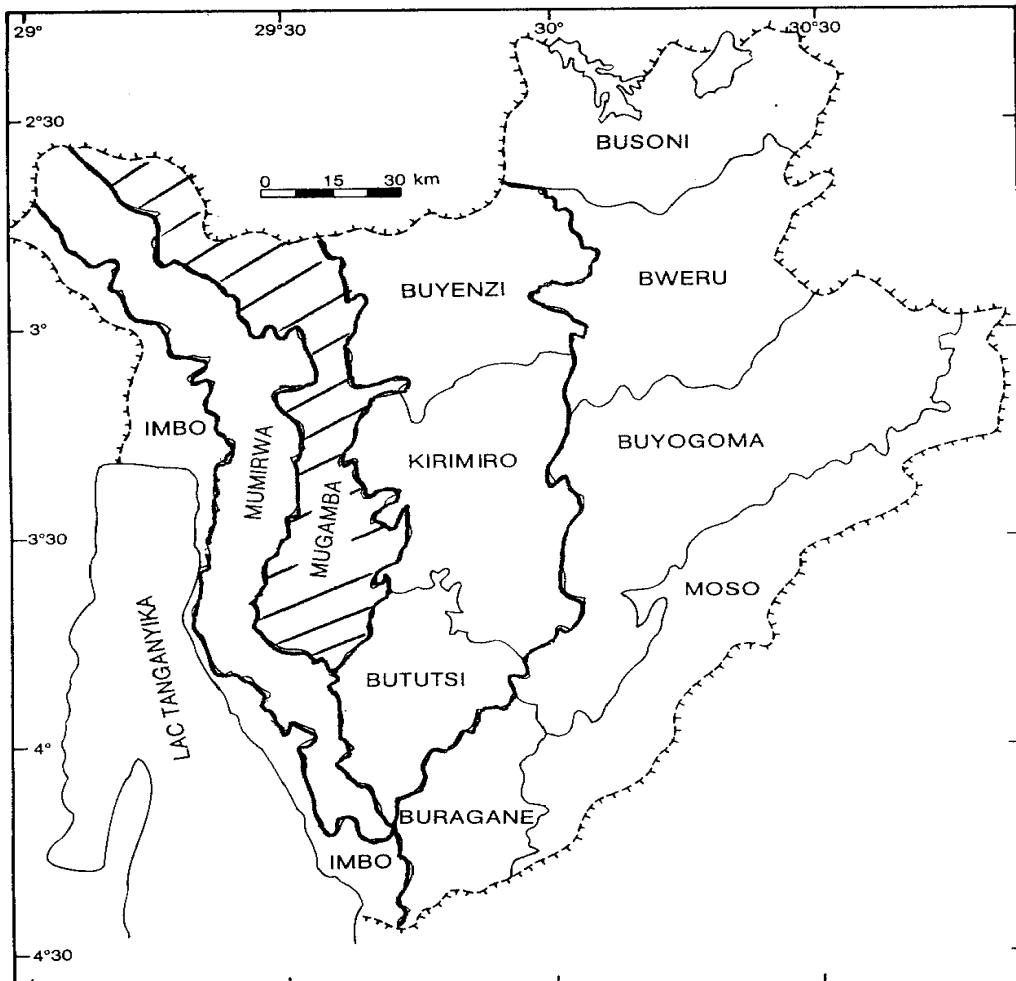


Table 2 summarizes an analysis of priority land management interventions that need to be undertaken to address the key land degradation issues in each of the five agro-ecological zones, to stop degradation and to initiate more sustainable forms of land management.

Preliminary estimated targets for project-funded SLM activities include:

#### Degradation of land cover

- Prevent further degradation of the Rusizi reserve in the Western Plains zone
- Prevent further degradation of 20% of the Forest reserves present in the Congo - Nile Divide and Depressional Areas (east) zones

#### Physical land degradation

- Prevent further degradation of 50% of the riparian lands of Lake Tanganyika
- Control erosion (mountain crest) and improve cultural practices (lower areas) on 10% of farmland in the Western Escarpment zone
- Improve pasture management and erosion control based on reforestation on 10% of pasturelands in the Congo - Nile Divide zone
- Expand agro-sylvo-pastoral production systems in 10% of cultivated land of the Central Plateau.
- Improve vegetation cover (windbreaks) and introduce water harvesting techniques to conserve soil moisture across the Depressional Areas (east) zone

#### Chemical land degradation

- Improve water management to prevent further salinization on 10% of irrigated lands in the Western Plains zone
- Improve soils with calcium amendments in 20% of acid soils of the Congo - Nile Divide

**Table 2: Burundi - Primary focus for Sustainable Land Management by agro-ecological zone**

<b>Agro-ecological zone</b>	<b>Western Plains</b>	<b>Western Escarpment</b>	<b>Congo - Nile Divide</b>	<b>Central Plateau</b>	<b>Depressional Areas (east)</b>
Natural region	Imbo	Mumirwa	Mugamba	Buyensi, Kirimiro, Bututsi	Bugesera, Bweru, Buyogoma, Moso, Buragane
Provinces where PRASAB will be active	Bubanza, Bururi, Makamba	Bubanza, Bururi	Muramvya, Mwaro, Bururi	Ngozi, Muramvya, Mwaro	Kirundo, Muyinga, Cankuzo, Rutana, Makamba
Main land degradation issue	Salinization	Loss of farmland due to erosion	Loss of pastureland due to erosion. Loss of soil fertility	Loss of soil fertility	Lack of soil moisture
<b>Primary focus for Sustainable Land Management</b>	<b>Improve water management for irrigated land.  Create and protect a buffer zone around Lake Tanganyika</b>	<b>Control erosion (mountain crest) and improve cultural practices (lower areas)</b>	<b>Improve pasture management and erosion control based on reforestation (mountain crest) Improve soils with calcium amendments</b>	<b>Expand agro-sylvo-pastoral production systems. Rehabilitate lowland cultivated areas</b>	<b>Improve vegetation cover (windbreaks). Introduce water harvesting techniques</b>

The national level assessment thus provides strategic guidance to PRASAB interventions to ensure that land degradation is reduced or minimized, that the productive capacity of the resource base is maintained, and that the conservation of critical ecosystems of regional and global significance is enhanced. Specific, detailed technical recommendations for improved land management (on-the-ground investments) have been identified by agro ecological zone and are listed in the Project Implementation Manual. This includes advise on the best approach for selecting specific intervention areas. Interventions designed to enhance national level land resource management decisions are integrated in the Capacity Building component of PRASAB.

The national level assessment is not a level suitable for evaluating the impacts of relatively small, local level PRASAB/GEF interventions on land degradation. This will be done at the local level.

## Local level baseline assessment

The PRASAB local level baseline assessment has a number of important features, these are:

- (1) Identification of the key land degradation concerns in a particular PRASAB intervention area,
- (2) Key element in the selection of demand driven project interventions,
- (3) Identification of optimum solutions to combat land degradation, and
- (4) Basis for evaluation of the impacts of PRASAB/GEF interventions on land degradation at the end of direct project involvement.

A methodology for evaluation of the results (impacts) of the SLM interventions to be undertaken in the PRASAB area, in particular those supported by GEF, is under development. The methodology will be included in the Project Implementation Manual. The impact evaluation is required to determine success and failure of project interventions, and to determine which measures and approaches can be replicated elsewhere. A selected set of basic indicators will be used to provide concise, reliable information about the condition of land, including the combined resources of soil, water, vegetation, and terrain that provide the basis for land use. The main land degradation indicators relate to

- Degradation of land cover
- Physical land degradation
- Chemical land degradation
- Sediment load of streams

The basic indicators will be applicable to all interventions. In addition, for each agro-ecological zone, zone-specific indicators will be selected. The evaluation will be based on careful mapping of specific land attributes and/or values of the representative sites at the baseline situation and in subsequent years. A program for periodic evaluation of changes is part of this methodological approach. The method will not be applied to all PRASAB interventions, in view of the time and cost involved, but will concentrate on a few representative sites selected in each of the agro-ecological zones. The results of the evaluation can be extrapolated to other PRASAB interventions. The underlying concept of the evaluation is to determine how many hectares were improved, in different ways, by different means, and in different zones, as a result of PRASAB/GEF. In this way, the results of the land baseline assessment can also be easily integrated with the findings of the socio-economic surveys.

Implementation of the local level baseline assessment (periodic evaluations of Land Degradation at representative sites in PRASAB), including the strengthening of laboratory facilities of INECN for soil and water analysis and the mapping capabilities of the Department of Soils / University, has been incorporated in the Capacity building component of the project.



## **Annex 12B: Social Issues and Framework for Community Participation<sup>22</sup>**

By the 1980s Burundi's combination of a growing population, a limited natural resource base, lack of government investment in the small-holder sector, and an economy largely limited to employment in the agricultural sector was causing land degradation and expansion into marginal areas. The government's lack of research, extension services, and provision of agricultural inputs left agricultural households without the means to intensify production; mining natural resources was the inevitable result. Ten years of civil war has exacerbated both sides of this problem and impoverished the rural population. Revitalizing the agricultural sector in order to rebuild household livelihood systems is necessary to reduce poverty and promote rural development.

PRASAB's overall objective is to help restore the rural population's productive capacity through economically and ecologically sustainable investments. Sustainable land management as the basis for rural well-being is imperative in Burundi, given its limited natural resource base and largely agricultural economy. GEF will add sustainability to the baseline project's work toward improving agricultural production and productivity. SLM also will contribute to global resources such as Lake Tanganyika and forests reserves. GEF will work with communities and producer organizations to build capacity in SLM as an integral part of the baseline project's short-term development benefits.

### **Recommendations**

#### Community participation:

- PRASAB should ensure staff's use of the participatory approach so that communities and producer organizations can choose the options for sustainable production and land management that fit in their household livelihood systems (HLS).
- PRASAB will need to invest significant resources in the participatory approach throughout the duration of the project because it is, as one NGO reported, "a never-ending negotiation with everybody."
- PRASAB should capitalize on other organizations' experience with the participatory approach in SLM, sustainable production, and working with producer organizations. The NGOs CARE, CRS, WV, and Twitezimbere all have this experience.
- It is critical that PRASAB clearly define the roles and responsibilities of its key partners (DPAE, Environment, Rural Development, Planning and Reconstruction, NGOs) at the beginning of the project, in order to ensure that the partners understand and respect them.

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<sup>22</sup> 1) Ministry of Planning, Development, and Reconstruction and UNDP, 2002, "National report on human development in Burundi, HIV/AIDS and human development in Burundi," Bujumbura, Burundi.

2) Ministry of Agriculture and Livestock and PRASAB, 2003, "Manual for the monitoring and evaluation of PRASAB, Module I: general conceptual guide," final version, Bujumbura, Burundi.

3) Ministry of Planning, Development, and Reconstruction and UNDP, D. Ntiranyibagira, 2003, Forum on the General State of the Burundian Economy, "An outline of the problem of food security in Burundi," Bujumbura, Burundi.

- PRASAB should work to build on existing committees rather than requiring a new one as a project liaison. PRASAB also must ensure that the local administration and its staff respects the community's independence in electing its committee.
- DPAE and other LIAs will need training in the participatory approach and monitoring to ensure that they use it, due to Burundi's tradition of top-down development.
- Land-tenure issues in general and marginal groups' rights (women, child household [HH] heads), in particular is a subject that PRASAB should investigate at the beginning of the project because 1) in rural areas there can be considerable differences between de jure and de facto land-tenure rights; and 2) land-tenure rights certainly will affect the project. The World Bank project in Rwanda may have useful information on this topic.
- PRASAB will need to investigate how to work with rural communities' diverse social groups without causing social tensions, as different groups (women, returnees) have different social status, which may result in differential access to natural resources and social networks.
- War victims (sinistrees) should participate in community-level SLM activities and form producer organizations following the same procedures as other participants.
- PRASAB cannot depend on DPAE to take an effective role in the project initially, due to its lack of resources (vehicles, motivation) for work.
- The project should use teachers and other social-science professionals as social development agents (animateurs), not agronomists
- PRASAB will need incentives for SLM because people are focused on meeting their short-term survival needs.
- It is strongly recommended that the project begin on a small scale the first year; for example, working in three communes per province and three or four communities per commune.
- Poverty and food insecurity should not be used as criteria for project site selection because little if any empirical data are available on their distribution, particularly at the commune and community level.
- PRASAB should recognize that rural project staff and offices may become the target of theft or violence because they have resources. A security system should be set up for staff and offices in rural areas.

#### Awareness- and capacity-building:

- PRASAB should rebuild ISABU's library so that the previous research on farming systems and technology transfer done in Burundi is available to the project. A document-review should be done so that PRASAB builds on previous research.
- Capacity-building should be demand-driven at the community and PO levels.
- The key to building awareness is to facilitate the process of people's identifying their constraints on sustainable production and land management, and their learning the options available to address these constraints.
- Building awareness of SLM will have to be done primarily through discussion sessions, because only 53% of men and 32% of women are literate (MPDR and UNDP, 2002).
- The rural focus groups conducted for this consultancy reported that practical demonstrations and TA in the fields is their preferred means to build capacity to use new technology.

- Farmer-to-farmer visits are recommended to build participants' awareness of and capacity to use sustainable production and land management techniques. These visits can be organized in terms of gender (women-to-women) and PO activities (e.g. rice producers-to-rice producers).
- The radio is a useful means of diffusing information even if it is not interactive. Rural women reported having learned about the connection between trees and rainfall from the radio.

#### Producer organizations:

- PRASAB will need to invest significant resources in building PO capacity, as Burundians prefer to work at the household level rather than in associations, and the great majority of producer organizations lack experience and management capacity.
- PRASAB will need to invest time in identifying potential win-win subprojects with project participants, who are focused on their short-term survival needs.
- Due to poverty and the tendency to misuse resources, PRASAB should have sound monitoring and control systems that make the producer organizations and communities accountable for the project funds and goods that they receive.
- It is essential that PRASAB conduct market studies as part of its work with producer organizations. Lack of market demand is a major factor that limits HH production and more difficult to address than increasing production.

#### Gender:

- Gender roles in rural Burundi are likely to give men priority in working with PRASAB and women's participation probably will have to be encouraged, particularly in group decision-making. The project should recognize that women's secondary social status will affect their participation.
- PRASAB should support having dynamic women who will speak up and participate in decision-making in general and on project committees in particular, as their traditional passive role still tends to limit their active participation.
- PRASAB may need to assist women's producer organizations retain control of the money they earn, as men traditionally have control over women's revenue. One option is to help women's producer organizations open PO accounts with institutions such as UCODE or COOPEC.

#### Monitoring and evaluation:

- producer organizations and communities should participate in the M&E process by providing their qualitative evaluation of project design, progress, and impact.
- PRASAB should conduct a midterm evaluation of project impact using the same methodology as used for its baseline and final evaluations. The M&E manual does not include a midterm evaluation; it proposes "legere" (limited) annual impact evaluations, but measurable changes in impact cannot be expected each year.
- The sampling strategy for impact evaluation surveys should be based on a national survey done in Burundi (e.g. the Demographic and Health Survey or a poverty study) so that PRASAB can more easily link its results with existing data.

- A household material possessions inventory and children's nutritional status are recommended as two objective measures of household well-being. They reflect expenditures and food security, respectively.
- "Major household expenditures" is recommended as an impact indicator that reflects income, instead of the indicator "change in household income" in the M&E manual. Self-reported data on household income is inaccurate and the detailed, seasonal data necessary for accurate income figures is expensive to collect.
- It is strongly recommended that PRASAB field-test the evaluation indicators proposed in the M&E manual. This is an essential step in the evaluation process, as experience shows that indicators virtually always need revision based on field-testing.

### **Key Social Factors and Gender**

- Households' focus on survival: Burundi's agricultural households are focused on using their limited resources for survival. This may limit their ability to invest in activities that return benefits in the long term (reforestation, oil-palms), and in new and therefore potentially risky activities.
- Land tenure conflict: The return of all types of war victims (IDPs, refugees, ex-combatants) will exacerbate Burundi's perennial land-tenure conflicts. Ethnicity is a hidden factor in land conflicts as it affected who fled and who lost their land, but the problem will be presented as a "land problem," which it also is.
- Marginal groups' rights to land (women, child household heads,) is a subject that PRASAB should clarify at the beginning of the project as in rural areas there can be considerable differences between de jure and de facto land rights.
- Corruption: The misuse of resources at all levels is reported to be commonplace and an obstacle to work. The rural population has low social status in Burundi's hierarchical society and therefore is easily exploited. Civil servants may see PRASAB's subprojects as an opportunity for profit at the rural population's expense.
- DPAE: DPAE consistently is reported to have technical competence but not the means (vehicles, fuel, motivation) to use it. The organizations that work with DPAE recognize that their lack of resources may lead them to misuse project resources and fail to meet their obligations.
- Social diversity and exclusion: Diverse social groups compete for scarce resources in rural Burundi, and poverty exacerbates the competition. The project should determine if its work with minority groups (such as returned refugees, former IDPs, widows, orphans) will create social tensions.
- Gender:
  - Gender influences access to political power and economic resources in Burundi and men still have disproportionate control of both, particularly in the rural population
  - Thirty-two percent of women and 53% of men were literate in 2000 (MPDR and UNDP, 2002). Lack of literacy and numeracy affect people's ability to manage producer organizations.
  - Burundian women generally use rather than control economic resources; they basically have usufruct rights to their husbands' land, which belongs to their children.
  - Rural men control the production of and revenue from commercial crops (coffee, cotton), although women's labor is used to produce them.

- Rural women's major economic activity is agriculture, which includes producing, processing, and selling food crops, and working as agricultural daily wage laborers.
- Single women (widows, desertees) with children are among the "vulnerables," the poorest stratum in rural communities.
- Men traditionally control household revenue from all sources, including women's earnings.
- Men also control community politics and decision-making; women generally do not have an active role in either.
- Working in associations increases women's access to key resources such as credit and land.

### **The Participatory Community Development Plan**

It is conventional wisdom that successful projects are based on beneficiaries' full participation in the project, from planning to evaluation. This approach will require a significant, continuous investment of time and energy from PRASAB's staff. MINAGRI adopted the participatory approach to extension in 1992 and virtually all the organizations and NGOs that work in SLM and agriculture in Burundi have used it for more than a decade. However, MINAGRI and its DPAEs still have a directive approach to community development and activities. The return of refugees and IDPs is likely to create problems such as conflict over land and food insecurity that will prompt a directive approach to solutions from all types of civil servants. Producers are a low stratum in Burundi's hierarchical society so DPAE and other LIAs will need training in the participatory approach and monitoring to ensure that they use it.

### **Small-Scale Start**

It is strongly recommended that the project begin on a small scale the first year, for example working in four provinces, three communes per province, and three or four communities per commune. This would make a total of 36-48 communities to work with the first year. If PRASAB funded two or three producer organizations per community it would have about 70-150 producer organizations to work with the first year. This is a sufficient number of producer organizations to test the project's methodology, support the producer organizations' capacity-building and development process, and document "lessons learned" for expanding project implementation the second year. Starting small will enable PRASAB to identify and resolve its implementation problems at a manageable scale. This is essentially a field-test of the project's methodology and ultimately will save PRASAB time and money by avoiding mistakes on a large scale.

### **Steps in community development**

The steps in the community development process are summarized in Table 1 at the end of this annex. The important considerations for PRASAB in the participatory approach are:

- PRASAB should make clear the local administration's and DPAE's roles and responsibilities in the project. These civil servants reportedly may feel threatened by community-up development and may seek to control community decisions and funds, in keeping with Burundi's tradition of top-down development.

- PRASAB should work to build on existing community committees rather than requiring a new one to work with the project. Encouraging diversity on the committee will be necessary.
- PRASAB must ensure that the local administration and LIAs respect the communities' independence in forming their project committees; otherwise, the administrators and LIAs are likely to influence the process or choose the committees. The administration and the DPAE have a very directive approach to this process.
- SLM will need support because agricultural households are focused on meeting their short-term survival needs and because land is managed mainly at the household level in Burundi. Incentives such as cash-for-work or an "infrastructure for nature swap" can be used to support people's investment in SLM's longer-term benefits.
- Awareness- and capacity-building should continue as long as producer organizations or communities are engaged with the project, or for at least a year. Farmer-to-farmer visits may be an effective way to implement this component. These visits can be organized in terms of gender (women-to-women) and producer organizations' activities.
- Building awareness of SLM will have to be done primarily through discussion sessions, due to high illiteracy rates in the rural population. Radio broadcasts are another option.

## **The Subprojects**

### Selection criteria for subprojects

One criterion for choosing PRASAB's subprojects should be considered, in addition to those in the PAD: Equal allocation among geographic areas, in order to avoid political bias and tensions.

Criteria such as poverty and food insecurity are inappropriate because there is little current information available on their distribution, particularly at the commune and community level. In 1999 the poverty rates in the natural regions where the project may work did not vary much: 75% of the population was poor in Bugesera; 72% in Bweru; 66% in Bututsi, Mugamba, and Mumirwa; and 65% in Buyenzi (MPDR and UNDP, 2002).

### Producer organizations

These factors should be taken into account in PRASAB's work with producer organizations and subprojects:

- The drive to meet basic needs affects people's responses about potential subprojects. Rural men and women reported that to generate more revenue they would produce more of what they already are producing. Neither suggested producing new crops or could identify viable nonagricultural income-generating activities, nor could they identify "win-win" subprojects. PRASAB will need to invest time working with participants to identify the latter.
- Rural women's responses about potential subprojects were: producing beans, potatoes, sweet potatoes, peanuts, sorghum, corn, and soybeans; raising goats, cattle, chickens, and rabbits; basket-making; tailoring; petty trade in foodstuffs and consumer basics such as cloth and soap; a mill for corn and cassava.
- Rural men's responses about potential subprojects were: raising cattle and goats; producing potatoes, onions, passion fruit, oil palm, sunflower; tile- and brick-making; fishponds, carpentry, beekeeping.

- In Ngozi and Muyinga, DPAE's responses about potential subprojects were: producing oil palm, sunflower, peanuts; raising purebred cattle (men); raising goats (women); "only agriculture" for women; carpentry; masonry; fishing; tailoring; tile-making; marketing foodstuffs.
- producer organizations' independent decision-making: The people who consider themselves experts on rural households' options to diversify and increase revenue—commune officials, DPAE, NGOs—may have useful experience with rural development, but they should not be allowed to make decisions about viable subprojects for producer organizations.
- Working in associations: there is no tradition of communal work in Burundi; the driving force to form producer organizations has been people's recognition that they provide access to resources such as project funding and support. producer organizations thus are formed to respond to external requirements, require intensive and continuous support to function, and generally fall apart when the support ends.
- Poverty exacerbates competition for resources and both are likely to influence people to form producer organizations to access PRASAB resources, Per capita income in Burundi is about \$100 per year and the potential availability of large sums of money may well lead to corruption at various levels (producer organizations, civil servants, project agents).
- The producer organizations affiliated with the parastatals are not autonomous and do not necessarily have experience implementing subprojects. They are likely to need capacity-building, like other producer organizations.
- Merchants in the north (Ngozi, Kirundo, Muyinga) reported that Burundi's marketing network is sluggish. Like farmers, they suffer from the general lack of purchasing power that is due to the country's poor economy and they could not identify potentially profitable commodities other than the staples they currently sell.
- Market studies: Market studies will be critical for the success of the subprojects. Previous experience in Burundi has shown that the post-production marketing chain is problematical and a major constraint on returning revenue, more than production. Exportation to regional and international markets faces constraints that must be researched; information from USAID's Small Farming Systems Research Project should be available from CDIE in USAID/Washington, International Programs at the University of Arkansas (U.S.A.), or the ISABU library.
- Grants versus credit: Development projects may facilitate access to credit for the rural population, but they rarely if ever provide grants. PRASAB's subproject grants may be seen as counterproductive to other projects' credit components. The grants also may create tensions at various levels (institutional, administrative, producers) between those who benefit from them and those who do not.

## **Monitoring and Evaluation**

- Participants should be included in the M&E process. The communities can collaborate with the project agents to produce PRASAB's trimestrial technical monitoring report. The LIA's qualitative monitoring report provides the opportunity for producer organizations and communities to evaluate their progress in terms of problems and solutions.
- The evaluation surveys should include people's opinions about PRASAB's impact on their natural resources, agricultural production, and incomes. Participants should have the opportunity to evaluate the project's strengths and weaknesses, and to recommend improvements in its design and implementation.

- A household material possessions inventory and children's nutritional status are proposed as two objective measures of household well-being. The material possessions inventory is based on observation of households' principal goods (tin roof, bicycle). The results are used to define wealth categories, make an index and rank households, and assess changes over time. Children's nutritional status is determined by anthropometric measurements (weight and height), which are relatively easy data to collect and analyze.
- Candidate indicators for assessing project performance are in Table 2 below. Most indicators should be disaggregated by sex in order to collect information on both HH heads (husband and wife).

Table 1. Steps in the Community Development Plan

Task	People responsible	Time required
1. Make lists of the potential LIAs in the project provinces	PRASAB headquarters	One month
2. Identify the LIAs that will work with PRASAB in each province; contact the LIAs and contract them to work with PRASAB	PRASAB headquarters	Two months
3. In each province: meet with the governor and the provincial administrative authorities, all the province's commune administrators, and relevant government services (DPAE, Environment, Rural Development, Planning and Reconstruction, NGOs), and LIA(s) to introduce PRASAB	PRASAB headquarters representative, IPCMU heads	One-half day per province
4. Set up two IPCMU offices: hire staff and install office equipment	PRASAB	Two weeks
5. In each province: organize the project team for each commune and its communities. The team will consist of an agronomist (technical agent) and an "animateur" (social agent), with support from DPAE technicians when necessary	IPCMU staff	One day per province
6. In each IPCMU: hold two half-days of training for the IPCMU staff and the project agents; one half-day of orientation about PRASAB (objectives, methods, IDA, GEF), and another of training in the participatory approach	IPCMU staff, PRASAB representative, and a consultant for training in the participatory approach	Two days per IPCMU
7. In each province: meet the communities and introduce PRASAB	Both project agents, and a IPCMU staff person	One to 2 communities per day
8. Project agents: make a return visit to the community; if they want to with PRASAB request that they form a project committee	Project agents	One to 2 communities per day
9. The community forms a project committee	Community and project agents	One to 2 months
10. Conduct participatory exercises with the community (village map, transect, historical profile, agricultural calendar, Venn diagram, wealth-ranking exercise, women's/men's economic activities)	Community and project agents	Two days per community
11. Conduct a Natural Resources Inventory in the community;	Community and	One to two



Task	People responsible	Time required
one agent with the women, and the other with the men. The objective is to learn about men and women and their resources, and how they use them	project agents	days per community
12. Conduct an Agricultural Survey of the community's agricultural and livestock production systems in each community; one agent with the women, and the other with the men. The objective is to learn about HLS and people's perspectives on their problems with and opportunities for rebuilding livelihoods	Project agents, community	One day per community
13. Communities review/verify the reports and get the final version	Project agents, community	1-2 communities per day
14. Identify the war victims in the community.	Project agents, community	Two weeks
15. producer organizations form, decide on their activities, obtain commune-level statutes, and have six months of capacity-building before they design their subprojects.	producer organizations, project agents	Seven months
16. The community decides on an SLM project.	Community, project agents	
17. The community decides how to organize its awareness- and capacity-building sessions focused on PO management, sustainable agricultural production, and SLM. Women may want separate sessions with a woman teacher.	Community, project agents	Two to four weeks
18. Farmer-to-farmer visits with farmers who have implemented sustainable production and land management with other projects; women-to-women and other types of producer visits are organized to reinforce awareness and capacity	Project agents, community	Ongoing
19. PRASAB researches the potential for radio broadcasts about land degradation and SLM	PRASAB	Two weeks
20. Ongoing: capacity-building for committee members for management and inclusive community decision-making and planning	Committee members, project agents	Ongoing
21. Ongoing: community sessions to raise awareness about sustainable production and land management, and evaluation of techniques that have been adapted/adopted	Community, project agents	Ongoing.
22. Ongoing: capacity-building for producer organizations for management of their activities and finances	producer organizations, project agents	Ongoing
23. Each month: the community provides information for PRASAB's system to monitor progress in community-level and PO subprojects	Community, producer organizations, project agents	Monthly
24. Each trimester: the community provides information for PRASAB's monitoring system on technical progress, the subprojects' activities, constraints on progress and how to address them, and the next trimester's activity plan	Committee, community, project agents	Half a day per community

Table 2. Candidate Indicators for Evaluating Sub-projects Impact

GEF Objectives	Candidate Indicators
1. Reduce land degradation by increasing public awareness of the available options for SLM.	<ul style="list-style-type: none"> <li>▪ Percent change in the number of men and women who can name 4 ways to control erosion.</li> <li>▪ Percent change in the number men and women who can name 4 ways to improve soil fertility.</li> <li>▪ Percent change in the number of men and women who can name 4 reasons to plant trees</li> <li>▪ Percent change in the number of men and women who can name 3 environmental reasons to manage the marais</li> </ul>
2. Reduce land degradation by building capacity to use sustainable technologies for SLM.	<ul style="list-style-type: none"> <li>▪ Percent change in the number of households that stable their livestock.</li> <li>▪ Percent change in the number of households that have modern compost pits.</li> </ul>
3. Support micro-watershed management including soil stabilization.	<ul style="list-style-type: none"> <li>▪ Change in the percent of households that have thriving tree seedlings around their houses.</li> <li>▪ Change in the percent of households that have thriving tree seedlings around the perimeters of their fields.</li> <li>▪ Change in the percent of households that have thriving fruit trees (or grevillea, or leucaena, or...)</li> </ul>
4. Seek 'win-win' options to enhance the ecological and economic value of land use.	<p><u>Indicators of change in household income</u> (i.e. increasing the economic value of land use):</p> <ul style="list-style-type: none"> <li>▪ Change in percent of HHs in different wealth categories, based on the household material possessions index.</li> <li>▪ Change in nutritional status in children under 5 years.</li> <li>▪ Percent change in the number of households that used chemical fertilizer in the last year.</li> <li>▪ Percent change in the number of kilograms of chemical fertilizer used by households in the last year.</li> <li>▪ Percent change in the number of households that purchased modern veterinary products in the last year.</li> <li>▪ Percent change in the total value of modern veterinary products purchased by the household last year.</li> <li>▪ Percent change in the number of HHs that produced commercial crops (coffee, tea) last year.</li> <li>▪ Percent change in amount of HH production of industrial crops last year.</li> <li>▪ Percent change in the number of HHs that had at least one child in school for the entire past year.</li> <li>▪ Percent change in total HH expenditure on its five major purchases in the last year.</li> <li>▪ Percent change in the number of producer organizations that made a profit of at least 50,000 FBu per member last year.</li> </ul>

### Annex 13: Project Preparation and Supervision

	Planned	Actual
PCN review	04/03/2003	4/14/2003
Initial PID to PIC	06/05/2003	8/07/2003
Initial ISDS to PIC	06/05/2003	6/05/2003
Appraisal	01/26/2004	01/28/2004
Negotiations	05/24/2004	
Board/RVP approval	07/15/2004	
Planned date of effectiveness	10/19/2004	
Planned date of mid-term review		
Planned closing date		

Key institutions responsible for preparation of the project:

Bank staff and consultants who worked on the project included:

Name	Title	Unit
Ousmane Seck	Task Team Leader	AFTS3
Arati Belle	Environmental Economist	AFTS3
Edeltraut Gilgan-Hunt	Environmental Specialist	AFTS2
Emmanuel Tchoukou	Financial Management Specialist	AFTFM
John Buursink	Senior Environment Specialist	AFTS3
Prosper Nindorerra	Procurement Specialist	AFTPC
Sylvie Traore	Program Assistant	AFTS3

Bank funds expended to date on project preparation:

1. Bank resources:
2. Trust funds:
3. Total:

Estimated Approval and Supervision costs:

1. Remaining costs to approval:
2. Estimated annual supervision cost:

## **Annex 14: Documents in the Project File**

- 1. Framework for Community Participation**
- 2. Food Crop Production in Burundi (Recent & Forecast)**
- 3. Environmental Baseline report**
- 4. Comprehensive Development Framework**

### Annex 15: Statement of Loans and Credits

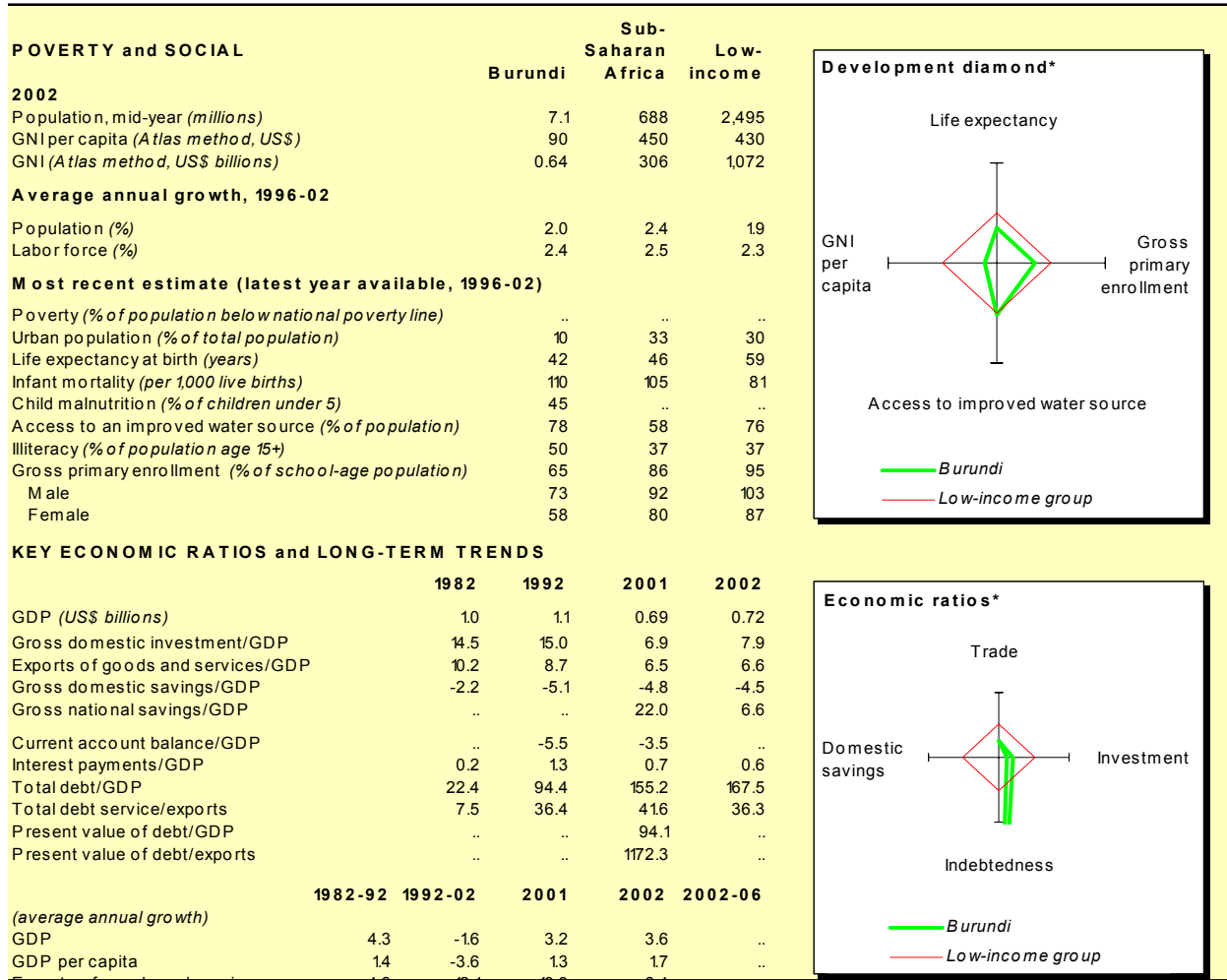
Project ID	FY	Purpose	Original Amount in US\$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P074602	2003	BURUNDI- ERC	0.00	54.00	0.00	0.00	0.00	14.92	-1.00	0.00
P071371	2002	BURUNDI - HIV/AIDS and Orphans	0.00	36.00	0.00	0.00	0.00	37.36	2.41	0.00
P065789	2001	Regional Trade Fac. Project - Burundi	0.00	7.50	0.00	0.00	0.00	3.90	0.17	0.00
P064961	2001	PUBLIC WORKS AND EMPLOYMENT CREATION	0.00	40.00	0.00	0.00	0.00	29.24	-13.69	0.00
P064510	2000	Social Action Project II (BURSAP)	0.00	12.00	0.00	0.00	0.00	16.64	1.96	0.00
P000216	1995	HEALTH/POPULATION II	0.00	21.30	0.00	0.00	0.00	10.01	2.23	2.26
		Total:	0.00	170.80	0.00	0.00	0.00	112.07	-7.92	2.26

### STATEMENT OF IFC's Held and Disbursed Portfolio In Millions of US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2001	AEF Florex	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	AEF V&F Export	0.57	0.00	0.00	0.00	0.57	0.00	0.00	0.00
	Total portfolio:	0.94	0.00	0.00	0.00	0.57	0.00	0.00	0.00

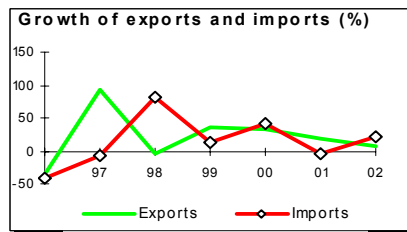
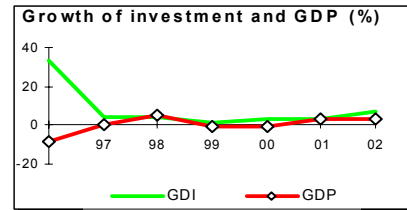
FY Approval	Company	Approvals Pending Commitment			
		Loan	Equity	Quasi	Partic.
	Total pending commitment:	0.00	0.00	0.00	0.00

## Annex 16: Country at a Glance



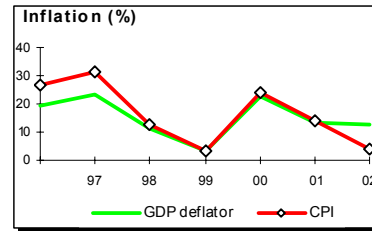
### STRUCTURE of the ECONOMY

	1982	1992	2001	2002
<i>(% of GDP)</i>				
Agriculture	56.9	52.5	50.0	49.3
Industry	15.4	20.8	18.7	19.4
Manufacturing	8.9	15.0	..	..
Services	27.7	26.7	31.3	31.3
Private consumption	91.6	95.0	91.3	91.7
General government consumption	10.7	10.1	13.5	12.8
Imports of goods and services	26.9	28.8	18.2	18.9
	1982-92	1992-02	2001	2002
<i>(average annual growth)</i>				
Agriculture	3.3	-0.3	3.8	3.9
Industry	4.3	-1.5	16.1	25.3
Manufacturing	5.4	-9.0	..	..
Services	4.9	-0.9	3.5	3.5
Private consumption	3.3	-4.0	-12.0	12.5
General government consumption	4.9	-1.7	14.7	0.9
Gross domestic investment	3.3	1.1	2.8	6.9
Imports of goods and services	0.1	5.5	-5.7	22.5



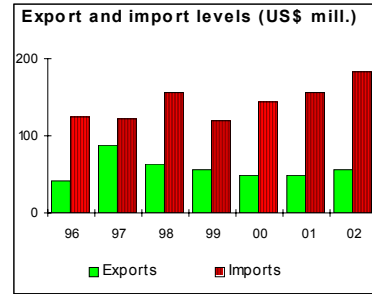
## PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
<b>Domestic prices</b>				
<i>(% change)</i>				
Consumer prices	5.9	18	14.0	3.8
Implicit GDP deflator	5.7	5.7	13.4	12.9
<b>Government finance</b>				
<i>(% of GDP, includes current grants)</i>				
Current revenue	15.2	19.7	21.4	19.4
Current budget balance	0.4	4.9	3.8	2.2
Overall surplus/deficit	4.4	-8.5	-3.0	-1.1



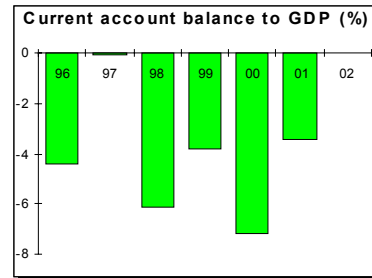
## TRADE

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Total exports (fob)	89	77	48	57
Coffee	78	49	52	54
Tea	3	9	14	15
Manufactures	3	11	1	1
Total imports (cif)	214	214	157	183
Food	25	11	12	12
Fuel and energy	30	26	21	22
Capital goods	51	78	66	68
Export price index (1995=100)	90	54	59	60
Import price index (1995=100)	94	95	92	93
Terms of trade (1995=100)	96	57	64	65



## BALANCE of PAYMENTS

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Exports of goods and services	103	95	51	61
Imports of goods and services	273	312	142	150
Resource balance	-169	-218	-90	-89
Net income	-8	-14	-12	-10
Net current transfers	..	..	196	87
Current account balance	..	-60	-24	..
Financing items (net)	..	73	31	..
Changes in net reserves	31	-13	-7	-10
<b>Memo:</b>				
Reserves including gold (US\$ millions)	..	..	..	..
Conversion rate (DEC, local/US\$)	90.0	208.3	830.4	930.7



## EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	227	1022	1070	1204
IBRD	0	0	0	0
IDA	66	473	582	648
Total debt service	8	40	23	24
IBRD	0	0	0	0
IDA	0	5	14	16
Composition of net resource flows				
Official grants	33	151	126	..
Official creditors	51	88	0	28
Private creditors	1	-2	2	-2
Foreign direct investment	1	1	0	..
Portfolio equity	0	0	0	..
World Bank program				
Commitments	21	50	48	90
Disbursements	18	49	12	36
Principal repayments	0	2	10	11

