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AFRICAN DEVELOPMENT BANK GROUP

**PROJECT : DEVELOPMENT AND ASPHALTING OF THE  
GITEGA-NYANGUNGU-NGOZI ROAD**

**PHASE II : GITEGA-NYANGUNGU SEGMENT**

**COUNTRY : BURUNDI**

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## PROJECT APPRAISAL REPORT

*Date : April 2011*

<b>Appraisal Team</b>	Team Leader:	P. MORE NDONG, Transport Engineer, OICT.2, Ext. 2284	
	Team Members:	A.I. MOHAMED, Principal Transport Economist, OITC.2, Ext. 2774 P.MUNYARUYENZI, Infrastructure Specialist, RWFO B. NYABURERWA, Consultant	
	Regional Director:	M. G. NEGATU, OREA,	Ext. 2064
	Sector Director:	M. G. MBESHERUBUSA, OICT, Ext. 2034	
	Sector Division Manager:	M. A. OUMAROU, OICT.2,	Ext. 3075

<b>Peer Reviewers</b>	A. KARANGA, Transport Economist,	OICT.1, Ext. 2607
	M. XUEREB-DE-PRUNELLE, Macro- Economist,	OSGE.1, Ext. 3053
	N. MURARA, Socio-Economist,	OSHD.1, Ext. 3207
	J.N. ILBOUDO, Transport Engineer,	OICT.1, Ext. 3156

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**CURRENCY EQUIVALENTS***[APRIL 2011]*

UA 1	=	BIF 1939.36
UA 1	=	EUR 1.1160
UA 1	=	USD 1.58550

**FISCAL YEAR**

1 July - 30 June

**WEIGHTS AND MEASURES**

1 kilogramme (kg)	=	2.2 pounds
1 metre (m)	=	3.28 feet
1 kilometre (km)	=	0.621 mile
1 square kilometre (km <sup>2</sup> )	=	0.3861 sq. mile
1 hectare (ha)	=	2.471 acres

**ACRONYMS AND ABBREVIATIONS**

AADT	Annual Average Daily Traffic
ABEDA	Arab Bank for Economic Development in Africa
ADF	African Development Fund
BIF	Burundian Franc
CSEP	Project Implementation Monitoring Unit
EAC	East African Community
EDF	European Development Fund
EIRR	Economic Internal Rate of Return
FRN	National Road Fund
HDM	Highway Development and Management
	International Development Association
MF	Ministry of Finance
	Ministry of Transport, Public Works and Infrastructure
	New Partnership for Africa's Development
NPV	Net Present Value
ODR	Highways Authority (Burundi)
PA	Project Area
PAP	Priority Action Programme
PDSR	Road Sector Development Project (Burundi)
PRSF	Poverty Reduction Strategy Framework
STAP	Short-term Action Plan on Infrastructure (NEPAD)
Veh/d	Vehicles per day

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**1. Customer Data**

<u>COUNTRY</u>	:	Burundi
<u>PROJECT TITLE</u>	:	Project for the Development and Asphaltting of the Gitega-Nyangungu-Ngozi Road, Phase 2: Gitega-Nyangungu Segment
<u>PROJECT AREA</u>	:	Gitega, Ngozi, Kanyaza and Karuzi Provinces
<u>DONEE:</u>	:	Republic of Burundi
<u>EXECUTING AGENCIES</u>	:	Ministry of Transport, Public Works and Infrastructure (MTTPE) / Highways Authority / Road Projects Implementation Monitoring Unit (CSEP); P.O. Box 1860 BUJUMBURA, (Burundi), Fax (257) 25 36 95; Telephone: (257) 22 29 40 / 22 09 59; E-mail: odr@usan-u.net .

**2. Financing plan**

Source	Net amount (in UA million)	Instrument
Grant from the ADF (country allocation) and the “ <i>Fragile States Facility</i> ” (FSF Pillar I)	10.00 32.00	(Project) grant
Government	0.26	Investment budget (National counterpart)
Total	42.26	

**3. ADF/FSF Grant Key Financing Information**

Grant currency	Unit of Account (UA)
Interest type	Not applicable
Interest rate margin	Not applicable
Service commission	Not applicable
Commitment fee	Not applicable
Other charges	Not applicable
Tenor	Not applicable
Grace period	Not applicable
FRR, NPV (baseline scenario)	Not applicable ( the project road is managed by the State, its utilization will not generate any direct operational revenue)
FRR, NPV of the project (baseline scenario)	15.73% and BIF 18,256 million

**4. Timeframe – Main Milestones (expected)**

Activities	(month, year)
Concept Note approval	March 2011
Project approval	June 2011
Signature of the Grant Protocol / Grant effectiveness (latest)	September 2011
Completion of project activities	April 2015
Last disbursement of grant	December 2015

## EXECUTIVE SUMMARY

### Project Overview

1. A landlocked country, Burundi experienced a long period of political instability that led to the deterioration of infrastructure and cumulative maintenance deficit. The Bank's assistance strategy aims at supporting the country in laying the necessary foundations for attaining Burundi Vision 2025 goals namely, achieving double-digit growth and 50% poverty reduction. Accordingly, in May 2011, the Bank approved Burundi's eligibility for the second cycle of support under the Fragile States Facility (FSF). This project comes under the road network improvement programme, on which the productive sectors rely. It is in line with the Country Strategy Paper (CSP) for 2008-2011 and will help to complete the development of the Gitega-Nyangungu-Ngozi road. The road development was divided into two phases because of inadequate resources. This operation is a follow-up to Phase I of the project approved by the Bank in September 2010.

2. Phase II covers: (A) the development and asphaltting of the Gitega-Nyangungu segment (50 km); (B) related works including: (i) the rehabilitation of 22 km of rural roads, including the paving of 4 km; (ii) the development of socio-economic and commercial infrastructure, and a parking lot for heavy vehicles in Gitega; (iii) the construction of pedestrian bridges; and (iv) project implementation management and monitoring support. Project activities will be implemented from August 2011 to March 2015. The total project cost, net of taxes and customs duties, is estimated at UA 42.26 million. The direct project area (PA) extends from the Centre to the North of the country. It has an estimated population of 775,000 inhabitants and a population density of close to 444 inhabitants/km<sup>2</sup>, which is one of the highest in the country and far exceeds the national average (310 inhabitants/km<sup>2</sup>). Gitega and Ngozi (the administrative headquarters of provinces through which the project road runs) are the country's second and third largest towns, respectively. The project area has huge agro-pastoral and tourism potential that has not been fully tapped due to its landlocked nature.

### Needs Assessment

3. Following an analysis of the country's current economic and social situation, the Bank's involvement is founded on the need to: (i) support the Government in implementing its strategy to open up access to the country and especially to regions with proven economic potential; and (ii) help to reduce poverty, the incidence of which is particularly high in Burundi (67%). The project was designed based on an update of detailed studies conducted in 2009 which revealed the need to invest in the road to adapt it to current demand.

### Bank's Value Added

4. Infrastructure development is a major objective of the Government's poverty reduction strategy. This strategy is the reference document for development partner operations. The Bank has acquired experience in the transport sector in the country, thanks to the first three operations currently in the implementation phase, as well as similar operations executed in other fragile States. Similarly, the Bank financed the Infrastructure Action Plan for Burundi that was launched in September 2009 with the participation of high-ranking Government and development partner representatives. The project under consideration will help to implement the said Plan. Lastly, the project supplements the Bank's previous operation and seeks to complete the development of the Gitega-Ngozi road to enable the road to fully achieve the set objectives.

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## **Knowledge Management**

5. This project will consolidate the Bank's experience in road project implementation in Burundi. The establishment of key impact indicators prior to project commencement and impact analysis on project completion will engender useful information on project outcomes and impact, thus contributing to knowledge building. Such information will be managed by the Highways Authority and disseminated through monthly and quarterly reports.

## BURUNDI: GITEGA-NYANGUNGU ROAD PROJECT, PHASE 2: GITEGA-NYANGUNGU SEGMENT

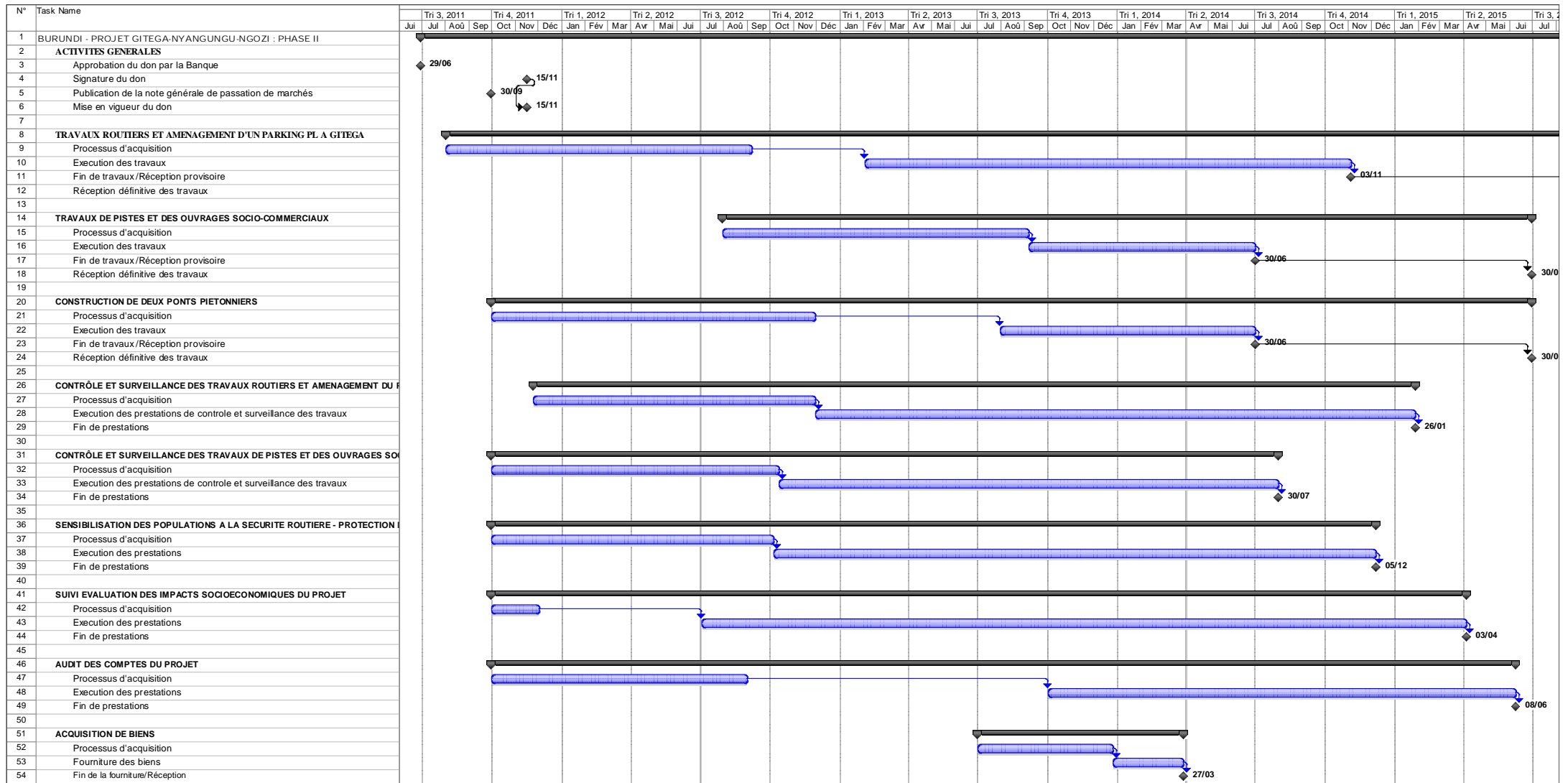
## RESULTS-BASED LOGICAL FRAMEWORK

Country and Project Name: Gitega-Nyangungu Road Project, Phase 2:						
Project goal: Facilitate the movement of goods and persons along the Gitega-Nyangungu-Ngozi Road and improve community access to basic services.						
RESULTS CHAIN	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/ MITIGATIVE MEASURES	
	Indicator (including SCIs)	Baseline situation	Target			
IMPACT	Access to landlocked areas and sub-regional trade facilitated	Priority road network developed	In 2010, 64% (1230 km) of the national road network was asphalted;	In 2014, 74% (1,443 km) of the national road network will be asphalted.	Source: Ministry of Transport, Public Works and Infrastructure (MTTPE); Ministry in charge of Trade. Methods: national economic and transport statistics)	<b>Risks:</b> (i) delay in the country's stabilisation process; and (ii) no mobilisation of financing and lack of political will for implementation of the necessary sector reforms. <b>Mitigative measures:</b> (i) the reconciliation and security policy on nationwide and the Bank-supported governance improvement process, both initiated some years ago, are capable of consolidating peace and stability in the country, and bolstering sustainable development; and (ii) the noted return of donors since 2004 and the regular monitoring process through the Partners' Coordination Group set up by the Government to coordinate aid.
	Improved access for project area communities	(i) Vehicle operating cost (VOC);  (ii) Average transit time between Gitega and Ngozi.  Number of persons situated less than 2 km walk from an all-seasons road	(i) In 2010, VOC = FBU 1107/km;  (ii) In 2010, the average transit time on this road was about 4 hours  The number of people situated less than 2 km walk from an all-seasons road in the project area is 116,250 in 2010, of which 52% are women.	(ii) In 2014, the VOC will be reduced by 25%, or about FIB 886/km.  (iii) In 2014, the average transit time will be 1.5 hours.  In 2014, the number of people situated less than 2 km walk from an all-seasons road in the project area will be 465,000.	Source: MTTPE Methods: national statistics, socio-economic surveys	<b>Risks:</b> No road maintenance, due to lack of resources and a consistent road maintenance system;  <b>Mitigative measures:</b> Increase of National Road Fund resources especially through mobilization of additional sources such as road toll and the institution of multi-year road maintenance programming.

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<b>KEY ACTIVITIES</b>	<b>OUTPUTS</b>	<p>1. (i) Development and asphaltting works on the Gitega-Nyangungu road segment; (ii) monitoring and supervision of road works on the said segment; (iii) community awareness-raising on environmental protection, STDs, including HIV/AIDS, and road safety along the entire Gitega-Nyangungu-Ngozi road.</p> <p>2. Development of socio-economic and commercial infrastructure, rehabilitation of rural roads, construction of pedestrian bridges and of the heavy vehicle parking lot in Gitega, support to women's groups, as well as monitoring and supervision of the above activities.</p> <p>3. (i) Conduct of annual project audits and project impact monitoring/evaluation; (ii) Project management support.</p>	<p>RESOURCES</p> <p>N/A</p>	<p>1. (i) 50 km of road asphalted between Gitega and Nyangungu; and (ii) awareness-raising conducted for about 150,000 persons.</p> <p>2. (i) 22 km of related rural roads developed, including 4 paved kilometres; (ii) Rehabilitation of markets, health centres and schools; (iii) rice hulling machines are operational and farm implements are provided to women's associations; pedestrian bridges are constructed; heavy vehicle parking lot is constructed in Gitega;</p> <p>3. 500 temporary jobs created, including 330 local labourers recruited for works on the main road and 550 jobs created by the paving component;</p> <p>4. (i) 3 project account audit reports produced; and (ii) 3 project impact monitoring/evaluation reports produced.</p>	<p>Source: MTTPE</p> <p>Methods: Reports of the central and decentralised services</p>	<p><b>Risks.</b> (i) cost overrun due to the volatility of input prices in the construction sector; and (ii) capacity of the executing agency.</p> <p><b>Mitigative measures:</b> (i) inclusion of financial contingencies in project costs; and (ii) technical assistance to build the operational capacity of the Highways Authority in the current project funded by the Bank and other technical partners such as the World Bank and the European Union.</p>
	<b>COMPONENTS</b>	<b>RESOURCES</b>	<p>1. Works on the main road</p> <p>2. Related works</p> <p>3. Support to project management and monitoring</p> <p>4. Opening of the project right-of-way</p>	<p>Component 1: UA 37.54 M</p> <p>Component 2: UA 4.22 M</p> <p>Component 3: UA 0.47 M</p> <p>Component 4: UA 0.03 M</p>		

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Project Implementation Schedule



**REPORT AND RECOMMENDATION OF BANK GROUP MANAGEMENT TO THE  
BOARD OF DIRECTORS CONCERNING A GRANT TO THE REPUBLIC OF BURUNDI FOR THE  
GITEGA-NYANGUNGU-NGOZI ROAD PROJECT, PHASE 2**

Management hereby submits this report and recommendation concerning a proposal to award grants for a total amount of UA 42 million to the Republic of Burundi to contribute to the financing of the Gitega-Nyangungu-Ngozi Road Project, Phase II: Gitega-Nyangungu Segment.

**I. STRATEGIC THRUST AND RATIONALE**

***1.1 Project Linkages with Burundi Strategy and Objectives***

1.1.1 According to the UNDP Human Development Report 2010, Burundi is one of the poorest countries in the world with per capita GNP of USD 150 and is ranked 166<sup>th</sup> (out of 169 countries) on the Human Development Index. The population is mainly rural (90%) and the poverty rate 67%. One of the major concerns of the Burundian Government is the rapid institution of conditions conducive to sustainable economic growth and, consequently, poverty reduction. To address this concern, the country recently adopted a long-term strategic planning instrument entitled Burundi Vision 2025, which will serve as the foundation for all future strategies. According to this vision, the main challenges to be addressed are: national unity, population growth and food security, unemployment and household income, poor economic diversification and slow growth, inappropriate production support infrastructure, low literacy rate and an uncompetitive labour force.

1.1.2 The crucial role of the infrastructure sector, especially transport infrastructure, towards the attainment of these fundamental objectives is reflected in this vision. This role has also been re-stated and outlined in the Poverty Reduction Strategy Framework (PRSF) which focuses on four (4) strategic areas, namely: (i) improvement of governance and security; (ii) promotion of sustainable and balanced economic growth, especially through the development of production support infrastructure; (iii) development of human capital; and (iv) HIV/AIDS control. It should be noted that PRSF update for 2011-2015 is currently being finalized with Bank support. PRSF II falls within the ambit of Burundi Vision 2025 and will serve as its medium-term operational strategy. PRSF-II will also cover implementation of the Millennium Development Goals (MDGs). Infrastructure development was already Strategic Pillar 2 of PRSF-I and will remain at the core of the PRSF-II strategy.

1.1.3 In a bid to implement its strategies and better gauge the effects of poverty reduction actions, the Government adopted a Priority Action Plan (PAP), from which emanates the road network improvement programme that supports the productive sectors. In this respect and for the 2011-2015 period, the Government's main objectives are to: (i) safeguard the national network of asphalted and non-asphalted roads; (ii) asphalt national roads that provide internal and external access; (iii) increase internal and external resources to finance development of the asphalted and non-asphalted road network; and (iv) build institutional capacity in the maintenance sector. The development and asphalted of the Gitega-Nyangungu-Ngozi national road, which forms part of the classified network, is one of the attempts to achieve these programme objectives. This road is among those targeted by the Government to open up internal access to the country. It connects Burundi's second and third largest cities, and constitutes a crucial link for developing trade

between the North and South of the country. Having a total length of 80 km, the project road has several levels of service by section. Given the financing package available, the Bank and the Government have agreed to phase the works. Accordingly, the Bank approved the financing of Phase I (Nyangungu-Ngozi segment; 30 km) in September 2010. This second phase concerns the Gitega-Nyangungu segment which is 50 km long and will make it possible to develop and asphalt the entire road from Gitega to Ngozi.

1.1.4 The project is consistent with the objectives set out in Burundi's poverty reduction strategies and the Bank's intervention strategy (the Country Strategy Paper, 2008-2011, Pillar 2: "Increase employment options through infrastructure development and targeted operations in the agricultural sector"), as well as the Infrastructure Action Plan for Burundi prepared and financed by the Bank. The main objective of the Plan is to reduce transport cost for the whole economy and improve access to local and international markets. It proposes an integrated framework on the basis of which to assess the country's infrastructure needs, the investment and maintenance costs related to such needs, as well as the human and institutional capacity required to design such a programme and guarantee its successful implementation. It proposes a detailed assessment of investment opportunities in Burundi's infrastructure sector to the Government, the donor community and the private sector. It defines an action plan for developing these assets and, by so doing, offsets the lack of master plans for the expansion of the electricity, transport and communications sectors. In the road sector, the Plan provides for the rehabilitation and asphaltting of the national road network (1950 km) before 2020.

## ***1.2 Rationale for Bank's Involvement***

1.2.1 The largest contribution to Burundi's GDP (about 43%) comes from the agricultural sector. Production in this sector is essentially carried out in rural areas. Studies have shown that successful harmonious development of this sector will be possible only if there is transport infrastructure that facilitates the movement of goods and persons throughout the year. Maintaining a system for regular supply of various inputs to farming areas, access to basic social services for rural communities and the timely evacuation of produce to commercial centres depend, for the most part, on the quality of available transport services. About 90% of domestic passenger and goods transport is done by road which, for that reason, has become the most prevalent mode of transport in the country. However, the deterioration of Burundi's transport infrastructure due to lack of maintenance during the period of political instability, constitutes a major handicap to the opening-up of external and internal access to the country that has one of the highest population densities in the world (310 inhabitants/km<sup>2</sup>).

1.2.2 After analysis of the country's current economic and social situation (post-conflict situation), the Bank's involvement is prompted by the need to support Government's strategy. To that end, since the resumption of its cooperation with Burundi, the Bank has been actively involved in the transport sector, mainly through the financing of three road infrastructure projects and a railway construction study. As concerns the Gitega-Ngozi Road Development Project, Phase I procurements are currently being finalized and works should commence in July 2011. It is appropriate that the Bank is contributing to the development of the last 50 kilometres of this road, since the set objectives cannot be fully attained if assistance were limited to Phase I.

### 1.3 Donor Coordination

The different development partners have maintained dialogue with the Government of Burundi within the Partners Coordination Group (GCP), which is a framework for dialogue and sharing of views on development assistance coordination. It is sub-divided into Thematic Groups responsible for sector technical issues. Hence, the Government, donors and civil society meet within the Economic Infrastructure Sector Group (GSIE), to hold consultative and coherent discussions on project planning and programming, as well as monitor/evaluate the economic infrastructure sector, including the transport sector. Within the specific context of this project, consultations were held between the Bank and Burundi's key road sub-sector donors (World Bank, European Union and Belgian Technical Cooperation). The experience of Belgian Technical Cooperation and the European Union, both of which currently finance road paving programmes in Burundi, enabled the project team to enhance its design of the paving component for feeder roads connected to the main road.

**Table 1**  
**Donor Coordination**

Sector		Size					
		As % of GDP	As % of Exports	As % of Labour			
Years		2001-2006	2005-2009	2005-2009			
<b>Burundi's Transport Sector</b>		<b>4.1</b>	NA	NA			
<b>Stakeholders – Annual Public Spending in Burundi's Transport Sector</b> (averages in BIF million)							
		<b>Donors</b>					
Years		Total	Govt.	IDA	ADF	EDF	China, Arab Funds and Others
2005	in BIF million	5094	546		2468		2080
	as %	100%	11%				
2006	in BIF million	130999	10816		7696	112487	
	as %	100%	8%				
2007	in BIF million	147679	14635	49200	26919	52344	4581
	as %	100%	10%				
2008	in BIF million	40405	5270	18450			16685
	as %	100%	13%				
2009	in BIF million	219583	25262	55350	91106	38821	9050
	as %	100%	11%				
2010	in BIF million	136 900	9394		43 842	8043	75621
	as %	100%	7%				
<b>Aid coordination level in BURUNDI</b>							
Existence of thematic working groups						Yes	
Existence of a global sector program						Yes	
ADB's role in assistance coordination						Member	

## II. PROJECT DESCRIPTION

### 2.1 Project Components

2.1.1 Project components are summed up in Table 2.1 below:

**Table 2.1**  
**Summary of Project Components**

No.	Components	Estimated Costs (in UA million, net of tax and customs duty)	Component Description
A	Road work	37.54	A.1. Development and asphaltting of the "Gitega-Nyangungu segment": <i>ADF financing</i> A.2. (i) works monitoring and supervision; (ii) community awareness-raising in the project area on road safety, environmental protection and the control of sexually transmitted infections (STIs), including HIV/AIDS: <i>ADF financing</i>
B	Development of infrastructure connected to the road	4.22	B.1. (i) rehabilitation of 22 km of feeder rural roads; (ii) development of socio-economic and commercial infrastructure; (iii) construction of pedestrian bridges; (iv) construction of a heavy vehicle parking lot in Gitega; and (v) support to women's groups by providing rice hulling machines and farm implements: <i>ADF financing</i> B.2. Monitoring and supervision of related works: <i>ADF financing</i>
C	Support to project management and monitoring	0.47	C.1. Project accounts audit: <i>ADF financing</i> C.2. Project impact monitoring/evaluation: <i>ADF financing</i> C.3. Project implementation monitoring: <i>Government financing</i>
D	Opening of the project right-of-way	0.03	Procurement of land, compensation for crops and other real estate: <i>Government financing</i>

## Paving of Feeder Roads

2.1.2 To ensure that road project communities reap the significant economic benefits and to guarantee the sustainability of the infrastructure, it has been planned that segments of the feeder roads connected to the main project road (about 4 km) will be paved. The roads identified are located in three of the four districts within the project area and connect the main road to various socio-economic infrastructure. Given the high rainfall, the hilly topography, the labour-intensive nature of the activity and its low maintenance costs, the paving option should yield benefits in terms of infrastructure sustainability and substantial gains in maintenance cost, compared to the option of surfacing the road with laterite. Furthermore, it will help to generate direct income for project area communities through the creation of direct and indirect jobs during implementation and input production. The proportion of roads to be paved is justified by the option adopted by the project team to initially limit the Bank's operation to organizing the sector. This will entail training project area associations to shape and lay pavestones, and subsequently recruiting them to carry out paving works. Furthermore, improving the employability of these communities and the materials supply system creates favourable conditions for a future large-scale operation to be financed and those already scheduled by the Bank (on-going project to create jobs in Ngozi) and other donors in the region.

## 2.2 Technical Solutions Retained and Alternatives Explored

2.2.1 The most suitable technical solution for this project was determined based on technical, economic, environmental and social considerations. In this regard, the project team reviewed the technical/economic results of the environmental and social impact assessment provided by the

Government. From the geometric standpoint, the current road alignment was maintained, with improvements in some areas to ensure compliance with road safety standards while avoiding further land occupation. Furthermore, certain stretches of the project road were raised, especially in swampy areas, to hedge against a possible rise in water levels due to climate change and allow for the construction of larger engineering structures. To ensure continuity with the earlier phase (Phase I), the solution retained will also comprise in cross-section, a platform necessary for a 6-metre wide road for the surface course and two road shoulders of 1.25m each.

2.2.2 The retained road structure was chosen based on the type of traffic, the type of soil on which the road lies, the quality of materials available in the project area, the environmental and social impact of its use, the cost and sustainability of the solution. Hence, the following were retained for the main road: (i) a sub-base course of 30 cm in lateritic gravel; a base course of 15 cm also in lateritic gravel; and (ii) a pavement structure in asphaltic concrete (AC) with a thickness of 5 cm. The road shoulders will have a single-coating surface course. With respect to the feeder roads, the project team has opted for paving of segments of these roads and the use of laterite on the rest. The alternative technical solutions explored and reasons for their rejection are summed up in Table 2.2 below.

**Table 2.2**  
**Technical Solutions Explored and Rejected**

Alternative Solution	Brief Description	Reasons for Rejection
Solution No. 1 – Main road: Base course in crushed sand-gravel aggregate.	This solution entails a base course in crushed sand-gravel aggregate instead of the lateritic gravel used in the retained solution.	High cost of preparation and transport of material. Whereas, the laterite in the PA is of good quality for the base course and is available in abundance and onsite.
Solution No. 2 – Main road: Base course in bitumen sand-gravel aggregate.	This solution entails a base course in bitumen sand-gravel aggregate instead of the lateritic gravel used in the retained solution.	Very high cost of preparation and transport of crushed material and supply of additional bitumen.
Solution 3 – Rural roads: surfacing with laterite	This solution entails surfacing with lateritic gravel	Low sustainability due to high rainfall and the hilly topography of the PA

### **2.3 Project Type**

The financing instrument retained for this project is a “project grant”, the resources of which comprise UA 10 million from the ADF country allocation and UA 32 million from Pillar 1 of the Fragile States Facility (FSF).

### **2.4 Project Cost and Financing Arrangements**

#### **Cost Estimate**

2.4.1 Phase 2 of the project is estimated to cost UA 42.26 million, net of taxes and customs duties, of which UA 33.23 million in foreign exchange and UA 9.03 million in local currency. The cost of works was determined taking into account: (i) the results of the detailed preliminary design finalized in 2009; (ii) the unit prices taken from the bids received in 2010 for similar road

works executed in the country and financed by the ADF and other donors; and (iii) programming of works execution planned for the 2013-2014 period. In the cost estimate, consideration was given to the recommendations of the study on the increase in the unit cost of road works executed by the Bank, including a provision to cover fluctuations between the UA and the local currency as well as the probable increase in the price of certain inputs. The provision for physical contingencies is maintained at 10% of the base cost. The provision for financial contingencies represents 7.96% of the base cost and of physical contingencies. Phase 2 cost estimate is detailed in Annex A1 and summed up in Table 2.3 below.

**Table 2.3**  
**Summary of Cost Estimates by Component for Project Phase 2**

Components	USD million			UA million		
	Foreign exchange	L.C	Total	Foreign Exchange	L.C	Total
A. Road works	39.65	10.47	50.12	25.01	6.60	31.61
B. Development of infrastructure connected to the road	4.62	1.01	5.63	2.91	0.64	3.55
C. Project management	0.09	0.54	0.63	0.06	0.34	0.40
D. Opening-up of the right-of-way	0.00	0.05	0.05	0.00	0.03	0.03
<b>Base cost</b>	<b>44.36</b>	<b>12.06</b>	<b>56.42</b>	<b>27.98</b>	<b>7.61</b>	<b>35.59</b>
Physical contingencies	4.44	1.21	5.64	2.80	0.76	3.56
Financial contingencies	3.88	1.06	4.94	2.45	0.67	3.11
<b>Total</b>	<b>52.68</b>	<b>14.32</b>	<b>67.00</b>	<b>33.23</b>	<b>9.03</b>	<b>42.26</b>

2.4.2 Details of the project cost by expenditure category are given in Annex A2 and summed up in Table 2.4 below.

**Table 2.4**  
**Summary of Project Cost by Expenditure Category**

Expenditure Category	in USD million			in UA million		
	Foreign Exchange	L.C	Total	Foreign Exchange	L.C	Total
A - Goods	0.01	0.09	0.10	0.01	0.05	0.06
B - Works	42.64	10.38	53.02	26.89	6.55	33.44
C – Consultancy services	1.71	1.25	2.96	1.08	0.79	1.87
D – Miscellaneous	0.00	0.35	0.35	0.00	0.22	0.22
<b>Base cost</b>	<b>44.36</b>	<b>12.06</b>	<b>56.42</b>	<b>27.98</b>	<b>7.61</b>	<b>35.59</b>
Physical contingencies	4.44	1.21	5.64	2.80	0.76	3.56
Financial contingencies	3.88	1.06	4.94	2.45	0.67	3.11
<b>Total</b>	<b>52.68</b>	<b>14.32</b>	<b>67.00</b>	<b>33.23</b>	<b>9.03</b>	<b>42.26</b>

### Financing Arrangements

2.4.3 Resources needed by the Bank to fund this project are sourced from the ADF allocation and FSF Pillar 1. Burundi offsets the gap. Hence, the Bank will award grants amounting to a total of UA 42 million, representing 99.4% of project cost net of taxes and customs duties. This Bank contribution will cover costs related to: (i) development works on the main road from Gitega to Nyangungu village and related infrastructure (up to 89.22% to be financed by the FSF); and (ii) provision of services related to works monitoring and supervision, community awareness-raising,

monitoring/evaluation of project impact and audit of project accounts (financed entirely by ADF). Sources of financing by expenditure category are given in Annex A3.

2.4.4 The Government's contribution of UA 0.26 million, or 0.6% of the project cost, net of taxes and duties, will be used to finance: (i) all transport costs and allowances of the team responsible for monitoring project execution; and (ii) all compensation for expropriations made to open-up the project right-of-way. Project sources of financing are indicated in Table 2.5 below.

**Table 2.5**  
*Sources of Financing of Project Components (in UA million)*

Source of Financing	Foreign Exchange	Local Currency	Total	
ADF	7.63	2.37	10.00	99.40%
FSF	25.60	6.40	32.00	
Government	-	0.26	0.26	0.60%
<b>Grand total</b>	<b>33.23</b>	<b>9.03</b>	<b>42.26</b>	<b>100.00%</b>

#### **Expenditure schedule**

2.4.5 The expenditure schedule by source of financing is presented in Table 2.6 below.

**Table 2.6**  
*Expenditure Schedule by Source of Financing (UA million)*

Source of Financings	2012	2013	2014	2015
ADF/FSF	10.464	17.815	11.795	1.927
Government	0.060	0.104	0.095	-
<b>Total</b>	<b>10.524</b>	<b>17.919</b>	<b>11.890</b>	<b>1.927</b>
<b>%</b>	<b>25%</b>	<b>42%</b>	<b>28%</b>	<b>5%</b>

## **2.5 Project Area and Beneficiaries**

2.5.1 The direct project area extends from the Centre to the North of the country, covering Gitega and Ngozi provinces. Given the project road's connections to the national road network, Ngozi, Kirundo and Kayana provinces that share boundaries with Rwanda form part of the direct project impact area. This area has a huge agro-pastoral and tourism potential that has not been fully tapped because of its landlocked nature. The PA population is estimated at 775,000 inhabitants and its population density of 444 inhabitants/km<sup>2</sup>, is one of the highest in the country, far exceeding the national average (310 inhabitants/km<sup>2</sup>). Gitega and Ngozi, the administrative headquarters of the provinces, are respectively the second and third largest cities in the country by virtue of the concentration of socio-economic activities in them, the presence of numerous administrative services and a substantial amount of facilities in terms of service infrastructure.

2.5.2 Project beneficiaries include: (i) the rural communities in the provincial districts of the impact area characterized by a poverty rate that remains very high due to the persistent negative effects of the socio-political conflicts it has experienced; (ii) the staff responsible for coordination services for farmers' organizations; and (iii) traders and transport sector professionals. The results expected by all the communities are: (i) an improvement in the service level along the Gitega-Ngozi road; (ii) accrual of income to vulnerable groups during the works phase; and (iii) an increase in the council revenue collected from local businesses servicing the project. The asphaltting of this road will lead to better traffic circulation, an increase in traffic and a reduction in transport costs. It will have an impact on the marketing of agricultural and pastoral products, which are the main source of income in the project impact area. Another expected outcome is

improved access to basic social services for the greatest number of people, thus contributing to the attainment of the MDGs.

## ***2.6 Participatory Process for Project Identification, Design and Implementation***

2.6.1 Given the high social demand for this project, it was designed and prepared through a participatory approach. Accordingly, public meetings were organised with the project area communities during all the phases of its preparation. These plenary public information and consultative sessions brought together the administrative and political authorities, heads of decentralized services and provincial branches of international NGOs, traditional authorities, opinion leaders, the business community and vulnerable segments of the population.

2.6.2 This participatory approach supplemented the opinion surveys conducted during the social impact assessments in 2010 and allowed for a more precise determination of the poverty level within the beneficiary project communities and fathom their aspirations and expectations. Furthermore, it gave the project team an opportunity to highlight the positive effects and benefits of asphaltting the road, as well as the attendant measures and actions needed to resolve the most urgent social problems and transform them into related project components. These include: (i) compensating persons affected by the project; (ii) securing the road right-of-way; (iii) supporting the development of agro-pastoral activities by supplying small farm implements; (iv) rehabilitating rural roads; (v) easing the hardship of domestic chores performed by women (supply of mills and hulling machines); and (vi) rehabilitating public infrastructure in villages traversed by the project road. After these consultations, the political and administrative authorities of Gitega and Ngozi provinces, non-State stakeholders and project area communities expressed their support for this project and confirmed their availability to help facilitate its implementation.

## ***2.7 Bank Group Experience and Lessons Reflected in Project Design***

2.7.1 The Bank's active portfolio comprises 8 national operations, most of which are in the transport sector (33%). Four operations in this sector (comprising three road projects and one railway study) are on-going. The overall portfolio performance is deemed satisfactory with a rating of 2.3 in 2010 (on a scale of 0 to 3, with 3 being highly satisfactory), compared to a rating of 2.1 in 2008. The project was designed based on lessons drawn from Bank operations in Burundi as well as those of other donors involved in the road sub-sector. These lessons include: (i) the need to involve various stakeholders in project design; (ii) the need to develop performance indicators that allow for better project monitoring; (iii) the need to have good quality basic studies prior to commencement; (iv) the need to build the technical and operational capacity of executing agencies; and (v) the need to strengthen project supervision by the Bank. Specifically, project design was also based on lessons from the difficulties encountered in implementing other similar road projects in the country (for instance, the impact of increasing cost of works which delays works start-up).

## ***2.8 Key Performance Indicators***

2.8.1 The key indicators are those found in the logical framework matrix with deadlines. They relate to: (i) the reduction rate in general transport costs (vehicle operating costs reduced by 25% on average and transit time reduced by 60%) on the project road; (ii) proportion of the priority road network developed; and (iii) greater access to basic social services, production and

marketing centres for about 0.775 million inhabitants (of which 52% women) using the project road and feeder rural roads.

2.8.2 Apart from these result indicators, implementation performance indicators will be established and monitored, especially: (i) deadlines for fulfilment of conditions precedent to first disbursement of the grant; (ii) deadlines for the award of contracts; (iii) project execution deadlines; and (iv) changes in the disbursement rate in accordance with the expenditure schedule.

2.8.3 The lack of a functional monitoring/evaluation system for the activities of any project right from commencement makes it difficult to appreciate the level of attainment of the development objectives set out in the results matrix. Accordingly, for Phase 2, provision has been made for the institution of a monitoring/evaluation mechanism to supplement the one already established under Phase 1.

### III. PROJECT FEASIBILITY

#### 3.1 *Economic and Financial Performance*

The project's expected economic benefits relate to the effects engendered by improved access, increased mobility of persons and goods, higher agricultural output and the development of commercial activities in the project impact area. For the purpose of economic analysis, costs and benefits were determined under the "no-project" and "project" situations, over 20 years after the road commissioning, with a discount rate of 12%. The economic analysis was conducted using the HDM-4 model. The quantifiable economic benefits relate to the reduction of general transport costs. The cost of the feeder roads as well as the value-added in agriculture, tourism and jobs created were included as costs and benefits that are exogenous to the model. The project generates an economic rate of return (ERR) of 15.73% and a net value-added of BIF 18,256 million in the baseline scenario. This rate is well above the opportunity cost of capital which is estimated at 12% in Burundi. Hence, the project is economically justifiable. Table 3.1 below sums up the economic analysis.

**Table 3.1**  
**Summary of Economic Analysis**

<i>Financial rate of return (FRR) in %</i>	<b>Not applicable</b>
<i>Economic rate of return (ERR) of the Gitega-Nyangungu Road Project in %</i>	<b>15.73%</b>
<i>Net present value (NPV) in BIF million</i>	<b>18 256</b>
<i>ERR sensitivity (combination of a 10% increase in costs and a 10% reduction in benefits)</i>	13.19%
<i>Discount rate</i>	12%

#### 3.2 *Environmental and Social Impact*

##### **Environment**

3.2.1 A detailed environmental and social impact assessment, accompanied by an Environmental and Social Management Plan (ESMP), was prepared for the project on development and asphaltting of the Gitega-Nyangungu segment of the Gitega-Ngozi National Highway 15. Under Phase 1 of the project and based on the results of these studies validated by the competent authorities, the project was classified under environmental Category 2. A summary of the Environmental and Social Management Plan (ESMP) was published on 29 July 2010 on the Bank's website. Under Phase 2, the project's classification in Category 2 was confirmed by

the Bank. The summary ESMP was published on the Bank's website on 28 April 2011 in accordance with Bank procedures.

3.2.2 The main negative impact detected is inherent in the works phase and adequately mitigated by adapted measures. These include: (i) dust emission and noise pollution; (ii) safety problems on the project sites during the execution of works and construction of worksite installations; (iii) risk of oil spillage; (iv) felling of trees to open up the project right-of-way, clearing of the vegetation and environmental degradation; (v) disruption of activities along the road; (vi) degradation of the surroundings of borrow sites; and (vii) risk of STI/HIV/AIDS spread and changing morals.

3.2.3 The bidding documents for procurement of works under the project will contain environmental and social clauses. The clauses will require contractors to comply with the environmental and labour legislations in force in Burundi, as well as environmental and social best practices. Similarly, it will be mandatory to implement environmental and social supervision and monitoring activities, awareness-raising for contractor staff on HIV-AIDS/STDs and road safety. The terms of reference will also include a Quality Control Plan and a Fire Control Plan which include environmental protection clauses. The costs of such measures will be included in the cost of works.

3.2.4 Besides, the specific measures prescribed relate to conditions for: (i) the installation of worksites and workers' camps (choice, establishment and access to sites, waste management, etc.); (ii) the opening and operation of quarries and borrow pits; (iii) operations on the right-of-way (dust reduction, transportation and storage of materials, etc.); (iv) works on the dirt roads; (v) control of vegetation and bush-clearing products; (vi) erosion and sedimentation control during construction of drainage and civil engineering structures; and (vii) removal of worksites, planting of trees and site rehabilitation.

### **Climate Change**

3.2.5 Climate change was taken into consideration in project design with the raising of certain segments of the project road especially in low-lying and swampy areas. The proportioning of engineering and water supply structures was also done taking into account the rainfall patterns in the project area, characterized by regular and abundant downpour of 1200 to 1500 mm. The risk of severe floods is mitigated through this precaution taken to stave off the possible effects of climate change.

3.2.6 Furthermore, erosion control and water conservation structures as well as the planting of shade and roadside trees will greatly contribute to the reconstitution of agricultural, silvicultural and pastoral resources. Such works should also improve the biodiversity that is of capital importance to the local and global environment, and help to mitigate climate change (carbon sequestration and reduction of greenhouse gases in the atmosphere). In comparison to the no-project situation, the presence of the asphalted road should help to reduce the greenhouse effect since the increase in traffic will be offset by an improvement in travel conditions in the project area, thereby reducing CO<sub>2</sub> emissions into the atmosphere, mainly through: (i) regulation of vehicle speed along the project road; (ii) reduction of time spent driving at low speed – second or even first gear; and (iii) reduction of the number of driving manoeuvres.

## Gender

3.2.7 The project area is characterized by a particularly precarious situation for women and children, especially after the socio-political conflicts that led to massive destruction of infrastructure and substantial degradation of the economic and social environment. Several agencies and NGOs operate in the project area to: (i) improve conditions for women who represent 52% of the population; and (ii) protect children. Persons aged below 25 represent 64% of the population in the communities concerned. In a bid to address their concerns better, the women of the project impact area organized themselves into a broad association. However, the situation of female leadership and representation in local, municipal and provincial decision-making structures reflects the persistent imbalance between men and women. The latter constitute only 21% of the membership of the community councils studied; 14% in *colline* (literally “hill”) councils, 36.4% of community administrators, 9.4% of zone chiefs, and 5.3% of *colline* chiefs. Yet the 2005 Constitution and the Electoral Code modified in 2009 provides for female representation of at least 30% in national institutions and local councils. The agricultural sector labour force is estimated at 89.6% of the population, of which 47.7% women. They head 15% of households in the area and their supplementary income comes solely from the sale of their harvest or local beer on their *colline* market day. To help women save time and reduce the hardship of certain domestic chores, there are plans to provide assistance under the project by supplying more efficient small farm implements, hulling machines and mills to women's associations.

## Social

3.2.8 Socio-economic indicators have remained marked by the negative effects of the recurrent crises that the country has experienced over the last decade. The last surveys of 2008 indicate that about 67% of Burundi's population live below the poverty line, compared to 33.5% in 1991. Life expectancy has declined from 51 years in 1993 to 42 years (2006). Infant mortality remains high at 176 per 1000 (2006). The maternal death rate is estimated to range between 615 to 800 deaths per 100,000 live births. The HIV/AIDS sero-prevalence rate in Gitega province was 5.9% in 2006. In education, the number of school-age children far exceeds the intake capacity and constitutes a major challenge to the national universal education policy. Furthermore, population pressure (2.6% growth rate), coupled with land problems and poverty exacerbate intra-community tensions and aggravate environmental degradation. The massive return of refugees and expelled persons, the resettlement of internally displaced persons and the demobilization of former combatants have dramatically increased the demand for services that support the sustainable socio-economic reintegration of conflict-affected communities.

3.2.9 The unemployment rate in the project area over the last two years was estimated at 14% of the labour force. It is certain that it will remain at this level with the return of displaced persons following peace-building efforts. The project will help to curb this rise in unemployment which stems from the arrival of crisis-displaced persons and young school leavers into the labour market, since the drop-out rate at the end of the school cycle is very high. Construction of the main road during the works phase is estimated to generate direct and indirect jobs for about 500 persons, two-thirds of whom are locals (20% of them being women). Furthermore, the paving sub-component will create employment for 410 stone-cutters during the six months of pavestone preparation, while the paved road development works could create 140 jobs (90% of them for women) during the 7 months of paving, for a total FBU 325 million. Since the value-added injected into the local economy is FBU 101 million, excluding job creation, and FBU

425,766,000, including job creation, the total value-added is equivalent to about 30% of all investments allocated to paving.

3.2.10 The recurrent conflicts experienced by the country have drastically reduced production levels and, consequently, the revenue generated by various activities. Evaluated at USD 210 in 1990, Burundi's income per capita plummeted to USD 110 in 2006, representing a slump of close to 50%, which now ranks the country in the 166<sup>th</sup> position under the Human Development Index (HDI) classification. Considering this indicator, one of the project's targeted objectives is to raise income levels for the rural population through agricultural value-added. Since 90% of the labour force in the PA draw their income mainly from agro-pastoral activities and the longest segment of the road runs through rural communities, this exogenous benefit is most certain. According to economic analysis, about 17% of the annual agricultural value-added in the area will come from the development and asphaltting of the road. It is estimated at FBU 2.41 billion per year on average.

3.2.11 The project road cuts through an area inhabited by an estimated population of 775,000, of which 52% women. Given the very difficult traffic and access conditions resulting from the advanced degradation of the road network, the vehicle travel time to the two largest commercial centres and the hospitals in Gitega and Ngozi is currently more than one and a half hours. Similarly, certain localities in the area are completely landlocked, mainly because of the rise in river levels during the rainy season. The development and asphaltting of the road, the construction of feeder roads and pedestrian bridges planned under the project should considerably reduce travel time and improve access to the project area. Hence, it will be possible for the people in the ten (10) districts ("*communes*") that lie along the road to travel by vehicle to the socio-economic centres of the project impact area within an average travel time of 30 minutes compared to the current 1.5 to 2 hours. This yields a major social benefit, particularly in case of medical evacuation for delivery purposes or other public health reasons such as vaccination campaigns, awareness-raising on environmental protection, HIV/AIDS and other pandemics (malaria, diarrheal diseases, acute respiratory infections, etc.).

### **Resettlement of Displaced Communities**

3.2.12 The project road alignment was designed to remain within the current right-of-way as much as possible. Consequently, project execution will not lead to the destruction of a large number of buildings and farms or the occupancy of a large amount of additional land. Only two homes were identified for relocation along the Gitega-Nyangungu segment. The other structures to be relocated are commercial stalls that have to be moved a few metres away from the road right-of-way. The owners of property affected by the project will be compensated by the Government prior to expropriation. The Bank will require the Government to provide proof of payment to those entitled to such compensation. This requirement is one of the grant conditions (Condition Bi).

## **3.3 Road Safety**

3.3.1 Road safety in Burundi is beginning to raise much concern. The number of accidents within the Bujumbura road network alone doubled from 1,608 in 2004 to 3,213 in 2009, and the cumulative number of accidents over the last nine years is 13,793 for all modes of transport. This figure does not include international transport accidents for which data is unavailable and accidents settled amicably. This situation is alarming in terms of socio-economic impact

estimated at 2% of GNP overall, or close to USD 63.36 million in Burundi. Accident causes are many and relate, among other things, to the following main factors: (i) the poor state of roads and vehicles; (ii) the simultaneous use of both left-hand and right-hand drive vehicles; (iii) the human factor in terms of experience and alcohol consumption; (iv) the lack and/or non-enforcement of regulations on the use of seat-belts and mobile phones; and (v) poor planning of the space used for transport. Faced with this situation, the Government took a series of measures, including: (i) the promulgation of a law on Internal Road Transport; (ii) the launching of the study on road safety that led to the preparation of a highway code now in the adoption phase; and (iii) the creation of a National Autonomous Agency for Road Safety. These measures will contribute to updating the current Highway Code which dates from 11 September 1958. With specific regard to the current project, the following main road safety aspects were taken into account, namely: compliance with design norms (alignment, paving, maximum practical speed, sight distance, location and design of engineering structures, etc.), road signs and erosion control structures. Furthermore, since the human factor has been identified as the one of the primary causes of road accidents, provision has been made for awareness-raising campaigns on road safety and the preservation of road safety equipment for project area communities.

#### **IV. EXECUTION AND MONITORING-EVALUATION OF THE PROJECT**

##### ***4.1 Implementation Arrangements***

###### **Executing Agency**

4.1.1 The Ministry of Transport, Public Works and Infrastructure (MTTPE) will play its usual role as project executing agency through the Highways Authority (OdR). The team set up within the OdR to conduct daily monitoring of the technical, administrative, accounting, financial and organisational management under Phase 1 will also be responsible for Phase 2 and will be strengthened with another engineer. Since its establishment, this team has satisfactorily monitored and managed road operations financed in Burundi by the Bank. The team benefits from technical assistance established under projects financed by the Bank. The monitoring costs are included in the national counterpart contribution.

###### **Procurements**

4.1.2 Under the project, all goods, works and services to be financed by the Bank grant will be procured in accordance with the relevant Rules and Procedures Governing the Procurement of Goods and Works, or Rules and Procedures for the Use of Consultants, as the case may be, using Bank standard bidding documents. The procurement arrangements for works and services financed with the Bank grant as well as the procurement plan are presented in Annex A4.

###### **Disbursements and Financial Management**

4.1.3 The direct disbursement method has been retained for goods, works and consultancy services financed by the Bank. Counterpart funds will be deposited in a special account bearing the project name and opened by the Government of Burundi in a bank acceptable to the ADB Group. Evidence of the Donee opening the account and making an annual transfer of resources thereto is one of the grant conditions (Condition B.ii). Resources will be transferred to the said account according to an annual expenditure schedule. Evidence of annual provisioning of the counterpart fund account is one of the grant conditions (Condition C.ii). Project financial

management will be the responsibility of the Project Implementation Monitoring Team and undertaken in accordance with the relevant Bank guidelines and requirements. This task will be entrusted to the officer in charge of accounting (member of the administrative and accounting management) of the Road Authority. This officer has the necessary qualifications and experience acquired during implementation of previous projects financed by the Bank. Given the current volume of these activities, she will be provided with an assistant. The team will be responsible for financial and cost accounting in accordance with the applicable norms. Computerised accounting will be instituted right from project start-up.

#### Audit

4.1.4 Accounts keeping will allow for monitoring project expenditure against estimates, by component, expenditure category and source of financing, and preparation of financial statements. The Bank grant will cover the services of an external audit firm hired to audit project accounts yearly, in accordance with ISA and IFAC international norms, and the Bank's terms of reference. The Highways Authority shall submit an audit report to the Bank for consideration, not later than 6 (six) months following the end of the accounting year concerned.

#### Implementation and Supervision Schedule

4.1.5 The implementation schedule for project components, summed up at the beginning of the report, was jointly prepared during the project appraisal mission. Detailed project supervision arrangements are outlined in Annex A1. Given the Bank's experience in the country, this schedule includes the time for preparation of procurement documents, bid analysis and conclusion of contracts by the executing agency. Similarly, it was considered that the deadlines for consideration of the said documents by the Bank were realistic. According to projections, project activities commence immediately after grant approval planned for June 2011 and end in the first quarter of 2015 for all components. The closing date for the grant is 31 December 2016. The Bank plans to conduct at least two field supervision missions per year. The number could be increased, if need be.

## **4.2 *Monitoring/Evaluation***

4.2.1 Monitoring/evaluation will comprise internal and external monitoring, the Bank's launching and supervision missions, a final appraisal including works completion and project completion reports. The project executing agency will provide the Bank with periodic and specific project execution status reports. These will be monthly and quarterly reports comprising aspects related to the physical and financial status of the project. They will report on the implementation of environmental and social measures, as well as on the status of the awareness-raising campaigns, indicating the results obtained. Such reports should reach the Bank latest fifteen (15) days after the end of the relevant period.

4.2.2 The University of Ngozi will prepare the monitoring/evaluation reports on the project's socio-economic impact. In consultation with the executing agency and relevant services of the sector ministries, the University will set out the impact measurement indicators and their status. Indicators defined in the CSP and those in the logical framework matrix will also be taken into consideration as part of this process. On project completion and six months following works completion, the executing agency will conduct a traffic audit on the road to verify the traffic assumptions.

**Table 4.1**  
**Monitoring/Evaluation Schedule**

<u>Period</u>	<u>Stages</u>	<u>Monitoring Activity/ Feedback Loop</u>
Q1-2012	Invitation to bid for works and services	Launching/ (Bank/ODR)
Q3-2012	Completion of works and services procurement	Analysis and approval of works and service contracts (Bank/ODR)
Q4-2012	Launch of project/commencement of works	Disbursement procedure and update of procurement plan
Q1-2013 and Q3-2014	Execution of works	Monitoring/supervision of works execution (Bank/ODR)
Q4-2014	Completion of works	Final works progress report (monitoring mission/ODR)
Q1-2015	Project completion and preparation of completion report	Joint drafting of project completion report

### 4.3 Governance

4.3.1 Since the signing of the Arusha Accords and promulgation of the Constitution of 18 March 2005 which enshrined all the principles and mechanisms that should contribute to the peaceful resolution of conflicts and national reconciliation, there has been a noticeable country-wide desire to avoid repeating errors of the past and plunging again into brutal conflicts. Although opposition parties challenged the municipal election results in April 2010, the institutions provided for by the constitution have been established and are effectively operational. Inter-ethnic conflicts are on the wane. The defence and security forces are being successfully welded and transformed into a republican army. This is creating the conditions for peaceful co-existence between citizens, reconciliation and the reintegration and rehabilitation of persons affected by conflict. The potential offered by decentralization has led to the establishment of local governance, which has encouraged the emergence of a network of responsible grassroots communities leading to a change of mentality and the promotion of real managerial capacity to consolidate sustainable development. The new legislative framework has also yielded some progress in female leadership and women's representation in the various institutions.

4.3.2 The quest for economic good governance has led the country to: (i) start setting up corruption control mechanisms with the operationalisation of the Audit Bench and the Anti-corruption Brigade; (ii) adopt a Poverty Reduction Strategy Framework (PRSF) from 2006 which ended in 2010, the new generation of which is being prepared; and (iii) adopt a Strategic Framework for Peace-building. The progress made in implementing these strategies enabled the country to reach the completion point under the HIPC Initiative in January 2009, marking a new starting point for its economic and social recovery. In May 2009, it also adopted a public finance management strategy accompanied by an action plan for 2009-2011 with the main objective of building a more efficient and more transparent public finance system. It should be noted that the Bank's assistance in the area of budget support after the first three programmes executed has been crucial to the results obtained. A fourth operation (Economic Reform Support Programme – ERSP IV) is being studied within the Bank to confirm these results.

4.3.3 In spite of these laudable efforts, the emergence of good governance is still hampered by the poor flow of information that should enhance transparency and enable all citizens to get involved and take ownership of the objectives and development strategies targeted by public policies. The organization of participatory consultations at different phases of the project addresses this challenge.

#### 4.4 *Sustainability*

4.4.1 The Burundian Government has established a second-generation National Road Fund (FRN) which has been operational since 2003. The Fund's revenues mainly come from the road user charge on fuel and were multiplied by 3.5 between 2005 and 2010, increasing from BIF 2.7 billion to BIF 9.6 billion during that timeframe. The evolution of the Fund's revenues is essentially based on the gradual increase in the fuel levy which went from BIF 20 per liter in 2005 to BIF 80 per liter in 2008 and are used for funding the routine maintenance of the priority road network. This network was established in agreement between the Government and the country's technical and financial partners and consists, as of 2010, of 2 412 km of roads, of which 1 569 km are paved and 843 km unpaved. The network includes (i) all national roads that connect the provincial capitals, (ii) inter-state roads that connect to neighboring countries, (iii) some access roads to the main agricultural production zones inside the country, and (iv) urban roads within the city of Bujumbura. The fund's resources have been able to cover only two thirds (2/3) of routine maintenance requirements on the priority network owing to (i) the absence of a well-developed and capable network of small and medium enterprises in the construction and public works sector, (ii) Dysfunctional design and implementation of road maintenance, and (iii) failure to effectively undertake resources mobilization for the FRN.

4.4.2 To address these weaknesses, some important initiatives were undertaken by the Government, with the assistance of the donor community. Under the Road Sector Development Project, the World Bank (RSDP) is currently providing support to small and medium businesses and local engineering consulting firms aiming at strengthening capacities in order to improve the quality and reduce the costs of road maintenance. Moreover, the communities directly benefiting from these road projects are being sensitized in preparation of their contribution to the maintenance and safety of road infrastructure. The established Community Development Associations (ACD)<sup>1</sup> are entrusted with undertaking manual repair work as well as monitoring rights-of-way and road signs, while at the same time, permanent jobs are being created in both rural and urban areas, particularly for women that are part of those ACDs. In the context of this project, the community associations are expected to be closely supervised so as to enable them to play an active role in the construction works and maintenance works of paved rural roads. Moreover, as was done in previous Bank operations, the allotment of related work has been planned in such a way that enables SMEs to undertake the mechanized maintenance of rural roads as well as the construction of commercial and social infrastructure.

4.4.3 With an increased capacity of the Burundi Roads Administration, notably through technical assistance missions and various training sessions planned under the Nyamitanga-Rhuwa and Bubanza - Endora road rehabilitation projects financed by the Bank and the Economic Development Bank for Africa, respectively, it is expected that the structure's overall functioning and performance will be significantly improved. Furthermore, the institutional support initiatives already undertaken by other financial and technical partners in the country should also contribute to this goal. As an example, the World Bank is financing the establishment of a road database which objective is to increase the Administration's understanding of the network's issues at hand and facilitate the monitoring of its maintenance and upgrading. It will thus have an appropriate tool for planning maintenance and rehabilitation works and better control their associated costs.

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<sup>1</sup> This is part of the RSDP implementation guidelines recommending labour-intensive works and community revitalization. One ACD provides repair and supervision services of 10 km of paved road, at a rate of one kilometer per member. Each member receives a salary of about 50,000 FBW / month.

4.4.4 Efforts are also being undertaken to improve the organization and functioning of the FRN. The Government has already taken steps to improve tax collection and increase the FRN's internal resources through the establishment of the Burundi Revenues Office. In addition, there are plans to expand the resources base through the effective collection of other fees provided by law. These include: (i) road toll fee on foreign vehicles, (ii) the axle load fee, (ii) penalties for overloaded vehicles, (iii) compensation for damage caused to the area road, and (iv) possible state contributions, donations and contributions from multilateral and/or bilateral donor agencies intended for road maintenance. Similarly, the tarring of roads, for which the frequency of maintenance is lower compared to dirt roads, may generate substantial savings on the maintenance budget. To enable the Bank to assess the maintenance system set up within the OdR, submission of the annual maintenance programme and budget, as well as the annual progress report will be one of the grant conditions (Condition C.i).

4.4.5 Ultimately, the combination of all these actions should help cover, as expected by the Government, up to 80% of ongoing maintenance costs for the current priority network by 2015, and 100% in the Medium term. It will also allow for the network's expansion including a portion of periodic maintenance costs. Indeed, given the cumulative maintenance deficit that arose because of the war, the Government of Burundi still relies heavily on financial support from development partners to ensure periodic maintenance of its road network. In addition, the Bank undertook a review/diagnosis study of Burundi's transport sector which recommends, among others, (i) institutional strengthening in road maintenance programming including the preparation of a rural roads development strategy, (ii) organizing annual reviews of the sector in collaboration with all stakeholders including development partners and road users to achieve a harmonized approach for addressing issues and funding Burundi's road network.

## **4.5 Risk Management**

4.5.1 Effective project implementation could be disrupted by one of the following major risks: (A) Risks related to achieving the project's purpose: (i) delay in the country's stabilisation process; (ii) no mobilisation of financing and lack of political will by the Government to implement the necessary sector reforms; (B) Risks related to achieving project outcomes: (i) no road maintenance, due to lack of sufficient resources and a coherent road maintenance system; and (C) Risks related to project execution: (i) Cost overrun generated by an increase in construction sector input prices; and (ii) limited capacity of the executing agency to ensure smooth project monitoring.

4.5.2 The main risks identified will be mitigated as follows: Type A risks: (i) the policy of reconciliation and security on the national territory and the Bank-supported governance improvement process, both initiated some years ago, are capable of consolidating peace and stability in the country and bolstering sustainable development; and (ii) the noted return of donors since 2004 and the regular monitoring process through the Partners' Coordination Group set up by the Government to coordinate aid. Type B risks will be mitigated by: (i) increasing the resources of the National Road Fund especially by mobilizing additional sources such as road toll and instituting multi-year road maintenance programming. Type C risks will be mitigated by: (i) including financial contingencies in project costs; and (ii) technical assistance to build the operational capacity of the Highways Authority in the current project funded by the Bank and other technical partners such as the World Bank and the European Union.

#### **4.6 Knowledge Building**

4.6.1 The establishment of key impact indicators prior to project start-up and impact analysis at project completion will allow for production of useful information on project results and impact. Such information will be managed by the Highways Authority and disseminated through monthly and quarterly reports. Inclusion of the construction of pedestrian bridges in the project is justified by the need to improve access to regions traversed by the road, mainly in rural areas. Its execution will enable the Bank to effectively monitor the socio-economic impact of this project component.

### **V. FINANCING AND LEGAL INSTRUMENTS**

#### **5.1 Financing Instrument**

The project will be financed with: (i) resources from FSF Pillar I; and (ii) resources from Burundi's allocation under ADF 12. A grant protocol agreement will be concluded with each source of financing.

#### **5.2 Conditions Associated with Fund's Intervention**

##### **A. Conditions precedent to grant effectiveness**

Effectiveness of the Grant Protocol Agreement shall be subject to its signature by the Fund and the Donee.

##### **B. Conditions Precedent to First Disbursement**

The first disbursement of grant resources shall be subject to fulfilment by the Donee of the following conditions to the satisfaction of the Fund:

- (i) Provide the Fund with evidence of the effective payment of compensation for expropriation (paragraph 3.2.12); and
- (ii) Provide the Fund with evidence of opening a special account bearing the project name in a bank acceptable to the Fund to receive counterpart funds (paragraph 4.1.3).

##### **C. Other Conditions**

Apart from the above conditions, the Donee shall fulfil the following conditions to the satisfaction of the Fund:

- (i) Submit to the Fund: (a) at the beginning of each year, the routine and periodic annual road maintenance programme and budget approved by the OdR Board of Directors; and (b) at the end of each fiscal year, the annual programme implementation report and budget (paragraph 4.4.4);

- (ii) Provide the Fund each year with proof of the annual provisioning of the counterpart funds account in accordance with the expenditure schedule (paragraph 4.1.3).

### **5.3 Compliance with Bank Policies**

The project complies with applicable policies, especially the policy on expenditure eligible for Bank financing. It is also in conformity with the Bank's recommendations on analysis of the unit cost of road works and Burundi's CSP.

## **VI. CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Conclusions**

The Gitega-Nyangungu-Ngozi road, which is part of Burundi's priority road network, connects the country's second and third largest cities and constitutes an important link for the development of trade between the North and South of the country. Executing the project to develop and asphalt this road was divided into two phases for reasons of resource availability. Phase I was approved by the Bank in September 2010. Its implementation will help to open up access to densely populated rural areas with high agro-pastoral potential. Specifically, the project will help to: (i) reduce general transport costs; (ii) improve access to basic social services as well as production and marketing centres; and (iii) increase opportunities for commercial activities. The project is economically viable and generates an average economic rate of return of 15.74%, which is higher than the opportunity cost of capital estimated at 12%.

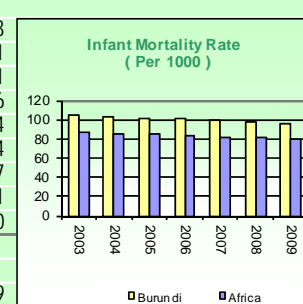
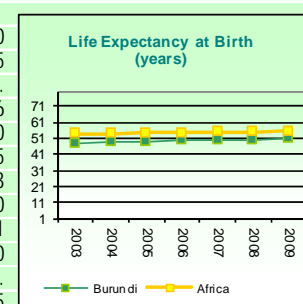
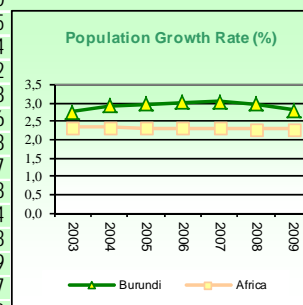
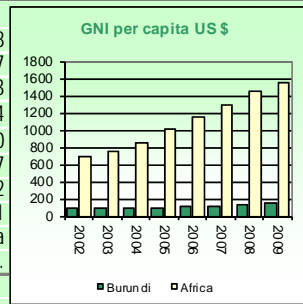
### **6.2 Recommendations**

In light of the foregoing, it is recommended that a grant on FSF (Pillar I) resources, amounting to UA 32 million, and a grant on ADF resources, amounting to UA 10 million, making a total not exceeding UA 42 million, be awarded to the Republic of Burundi. These grants will be used to execute the project as designed and presented in this report. These grants shall be subject to the conditions specified in the Protocols of Agreement.

## Burundi

### COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Burundi	Africa	Developing Countries	Developed Countries
<b>Basic Indicators</b>					
Area ('000 Km²)		28	30 323	80 976	54 658
Total Population (millions)	2010	8,5	1 031,5	5 659	1 117
Urban Population (% of Total)	2010	11,0	39,9	45,1	77,3
Population Density (per Km²)	2010	306,1	34,0	69,9	20,4
GNI per Capita (US \$)	2009	150	1 525	2 968	37 990
Labor Force Participation - Total (%)	2010	55,6	40,1	61,8	60,7
Labor Force Participation - Female (%)	2010	52,6	41,0	49,1	52,2
Gender -Related Development Index Value	2007	0,390	0,433	0,694	0,911
Human Develop. Index (Rank among 169 countries)	2010	166	n.a	n.a	n.a
Popul. Living Below \$ 1 a Day (% of Population)	2006	81,3	42,3	25,2	...
<b>Demographic Indicators</b>					
Population Growth Rate - Total (%)	2010	2,6	2,3	1,3	0,6
Population Growth Rate - Urban (%)	2010	5,5	3,4	2,4	1,0
Population < 15 years (%)	2010	37,9	40,3	29,0	17,5
Population >= 65 years (%)	2010	3,2	3,8	6,0	15,4
Dependency Ratio (%)	2010	68,7	77,6	55,4	49,2
Sex Ratio (per 100 female)	2010	96,3	99,5	93,5	94,8
Female Population 15-49 years (% of total population)	2010	26,4	24,4	49,4	50,6
Life Expectancy at Birth - Total (years)	2010	51,4	56,0	67,1	79,8
Life Expectancy at Birth - Female (years)	2010	52,9	57,1	69,1	82,7
Crude Birth Rate (per 1,000)	2010	34,0	34,2	21,4	11,8
Crude Death Rate (per 1,000)	2010	13,4	12,6	8,2	8,4
Infant Mortality Rate (per 1,000)	2010	94,6	78,6	46,9	5,8
Child Mortality Rate (per 1,000)	2010	159,0	127,2	66,5	6,9
Total Fertility Rate (per woman)	2010	4,3	4,4	2,7	1,7
Maternal Mortality Rate (per 100,000)	2008	970,0	530,2	290,0	15,2
Women Using Contraception (%)	2005	...	...	61,0	...
<b>Health &amp; Nutrition Indicators</b>					
Physicians (per 100,000 people)	2004-09	3,0	58,3	109,5	286,0
Nurses (per 100,000 people)*	2004-09	18,7	113,3	204,0	786,5
Births attended by Trained Health Personnel (%)	2005-07	33,6	50,2	64,1	...
Access to Safe Water (% of Population)	2008	72,0	64,5	84,3	99,6
Access to Health Services (% of Population)	2005-07	...	65,4	80,0	100,0
Access to Sanitation (% of Population)	2008	46,0	41,0	53,6	99,5
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2007	2,0	4,9	0,9	0,3
Incidence of Tuberculosis (per 100,000)	2009	348,0	294,9	161,0	14,0
Child Immunization Against Tuberculosis (%)	2009	98,0	79,9	81,0	95,1
Child Immunization Against Measles (%)	2009	91,0	71,1	80,7	93,0
Underweight Children (% of children under 5 years)	2005-08	...	30,9	22,4	...
Daily Calorie Supply per Capita	2007	1 685	2 465	2 675	3 285
Public Expenditure on Health (as % of GDP)	2008	13,6	5,7	2,9	7,4
<b>Education Indicators</b>					
Gross Enrolment Ratio (%)					
Primary School - Total	2009	146,6	102,7	107,2	101,3
Primary School - Female	2009	144,2	99,0	109,2	101,1
Secondary School - Total	2009	21,2	37,8	62,9	100,1
Secondary School - Female	2009	17,8	33,8	61,3	99,6
Primary School Female Teaching Staff (% of Total)	2009	52,8	47,0	60,5	81,4
Adult literacy Rate - Total (%)	2008	65,9	64,8	80,3	98,4
Adult literacy Rate - Male (%)	2008	72,3	74,0	86,0	98,7
Adult literacy Rate - Female (%)	2008	59,9	55,9	74,8	98,1
Percentage of GDP Spent on Education	2009	8,3	4,6	3,8	5,0
<b>Environmental Indicators</b>					
Land Use (Arable Land as % of Total Land Area)	2008	35,0	7,8	10,6	10,9
Annual Rate of Deforestation (%)	2005	...	0,7	0,4	-0,2
Annual Rate of Reforestation (%)	2005	...	10,9	...	...
Per Capita CO2 Emissions (metric tons)	2009	0,0	1,1	2,9	12,5



Sources : ADB Statistics Department Databases; World Bank: World Development Indicators; last update : May 2011  
 UNAIDS; UNSD; WHO, UNICEF, WRI, UNDP; Country Reports.  
 Note : n.a. : Not Applicable ; ... : Data Not Available.

**Table of the Bank's Portfolio in Burundi**

**National**

Secteur	Nom du projet	approbation	signature	effectif	engagement net (UA m)	taux de décaissement	date de clôture	age du projet
Agriculture	Ppf Developement Rural Integre Bugesera	12/27/08	2/27/09	2/27/09	0.32	27.5	6/30/11	2.1
	Projet Aménagement Des Bassins Versants	3/1/06	4/7/06	4/7/06	9.00	99.5	12/31/11	5.1
	Prog. D'Amenag. Lac Tanganyika	11/17/04	1/12/05	1/13/06	4.96	21.9	1/31/12	5.3
Agriculture Sub Total					14.28	49.7		4.2
Energie	Réhabil. Et Exten. Infrastructures Elec	7/5/07	8/17/07	8/17/07	7.32	55.1	12/31/11	3.7
Energie					7.32	55.1		3.7
Gouvernance	Prog. D'Appui Aux Reformes Economiques	12/8/04	1/12/05	6/28/05	1.50	80.3	6/30/11	5.8
Gouvernance Sub Total					8.22	80.3		5.8
Transport	Projet Gitega-Nyagungu-Ngozi Phase 1	9/9/10	2/2/11		24.10	0.0	12/31/14	0.4
Transport - Sub Total					24.10	0.0		0.4
Social	Projet Multisectoriel De Réinsertion	12/13/04	1/12/05	10/1/05	9.8	82.7	9/30/11	5.6
	Projet De Creation D'Emplois	6/24/09	9/14/09	10/14/09	10.0	13.1	12/31/13	1.5
Social - Sub Total					19.81	47.9		3.5
<b>Grand Total</b>					<b>73.73</b>	<b>46.6</b>		<b>3.5</b>

**Multinational**

Secteur	Nom du projet	approbation	signature	effectif	engagement net (UA m)	taux de décaissement	date de clôture	age du projet
Multinational	Projet Dev. Rural Du Bugesera (Burundi)	9/25/09	11/4/09	11/4/09	15.0	2.2	12/31/15	1.5
	Nelsap Interconnection Project - Burundi	11/27/08	16/03/09		15.2	0.0		2.4
	Projet De Route Kicukiro - Kirundo	9/20/06	10/30/06	10/30/06	30.2	81.9	11/30/11	4.6
	Route Nyamitanga-Ruhwa-Ntendezi-Mwityazo	12/16/08	3/16/09	3/16/09	50.6	13.3	12/31/13	2.3
	Etude Lignes Transport Energie Rusumo	10/27/06	4/30/07	9/14/07	2.6	57.0	9/9/11	4.5
	Phase 2 Chemin Fer Dsm-Isaka-Kiga/Keza	11/17/09	3/31/10	1/0/00	1.7	0.0	12/31/12	1.4
<b>Grand Total</b>					<b>115.24</b>	<b>25.7</b>		<b>2.8</b>

**Major Related Projects Financed by the Bank and Burundi's Other Development Partners**

DONORS	PROJECTS	AMOUNT (in million)
1. EDF	(i) Development and Asphaltting of the Gitega-Karuzi Road and Gitega Bypass; (ii) Development and Asphaltting of the Ruyigi-Cankuzo Road	EUR 40.00 EUR 22.00
2. OPEC Fund	(i) Supplement to the Development and Asphaltting of the Kicukiro-Kirundo Road: Gasenyi-Kirundo segment (ii) Supplement to the Development and Asphaltting of the Bubanza-Ntamba-Ndora Road	USD 12.00 USD 18.00
3. ABEDA	Development and Asphaltting of the Bubanza Ntamba Road	USD 22.00
4. IDA	Road Sector Development Project	SDR 34.30
5. ADF	(i) Multinational Kicukiro-Kirundo Road Project (Gasenyi-Kirundo segment) (ii) Multinational Nyamitanga-Ruhwa-Ntendezi-Mwityazo Road Project (Nyamitanga-Ruhwa segment) (iii) Project for the Development and Asphaltting of the Gitega-Ngozi Road, Phase 1 (iv) Phase II – Dar Es Salam-Isaka-Kigali/Keza-Musongati Railroad Study (multinational)	UA 14.9 UA 49.38 UA 24.1

Gitega-Nyangungu-Ngozi Road Project: Project Area Map  
BURUNDI - NATIONAL ROAD NETWORK



**TECHNICAL ANNEXES**  
**Estimated Project Cost by Component**

Components	Foreign Exchange	L.C.	Total	Foreign Exchange	L.C.	Total	Foreign Exchange	L.C.	Total
	(in UA million)			(in USD million)			(in BIF million)		
<b>1. Road works</b>	<b>25.008</b>	<b>6.603</b>	<b>31.610</b>	<b>39.650</b>	<b>10.469</b>	<b>50.118</b>	<b>48 498.68</b>	<b>12 805.41</b>	<b>61 304.09</b>
1.1 Works on the Gitega-Nyangungu segment	24.162	6.040	30.202	38.309	9.577	47.886	46 858.628	11 714.657	58 573.285
1.2. Works monitoring and supervision	0.846	0.362	1.208	1.341	0.575	1.915	1 640.052	702.879	2 342.931
1.3 Community awareness-raising	0.000	0.200	0.200	0.000	0.317	0.317	0.000	387.872	387.872
<b>2. Related works</b>	<b>2.914</b>	<b>0.635</b>	<b>3.550</b>	<b>4.620</b>	<b>1.008</b>	<b>5.628</b>	<b>5 651.46</b>	<b>1 232.44</b>	<b>6 883.90</b>
2.1 Rehabilitation of feeder roads, development of a rural market, protection/sanitation of education and health centres along the road	1.308	0.327	1.635	2.074	0.519	2.593	2 537.398	634.350	3 171.748
2.2 Construction of pedestrian bridges	0.703	0.000	0.703	1.115	0.000	1.115	1 363.370	0.000	1 363.370
2.3 Construction of a heavy vehicle parking lot in Gitega;	0.720	0.180	0.900	1.142	0.285	1.427	1 396.339	349.085	1 745.424
2.4 Monitoring and supervision of related works	0.174	0.075	0.249	0.277	0.119	0.395	338.350	145.007	483.357
2.5 Support to women's associations – supply of rice hulling machines and small farm implements	0.008	0.054	0.062	0.013	0.085	0.098	16.000	104.000	120.000
<b>3. Project management and monitoring</b>	<b>0.059</b>	<b>0.339</b>	<b>0.398</b>	<b>0.093</b>	<b>0.538</b>	<b>0.631</b>	<b>113.45</b>	<b>658.26</b>	<b>771.72</b>
3.1. Project accounts audit	0.059	0.000	0.059	0.093	0.000	0.093	113.453	0.000	113.453
3.2. Project impact monitoring/evaluation	0.000	0.150	0.150	0.000	0.238	0.238	0.000	290.904	290.904
3.3. Project implementation monitoring	0.000	0.189	0.189	0.000	0.300	0.300	0.000	367.359	367.359
<b>4. Opening-up of the right-of-way</b>	<b>0.000</b>	<b>0.029</b>	<b>0.029</b>	<b>0.000</b>	<b>0.046</b>	<b>0.046</b>	<b>0.00</b>	<b>56.24</b>	<b>56.24</b>
4.1. Procurement of land, compensation for land, crops and real estate property	0.000	0.029	0.029	0.000	0.046	0.046	0.000	56.241	56.241
<b>Base cost</b>	<b>27.980</b>	<b>7.607</b>	<b>35.587</b>	<b>44.363</b>	<b>12.061</b>	<b>56.423</b>	<b>54 263.59</b>	<b>14 752.35</b>	<b>69 015.94</b>
Physical contingencies (PC), 10%	2.798	0.761	3.559	4.436	1.206	5.642	5 426.359	1 475.235	6 901.594
Financial contingencies [7.96% x (base cost + PC)]	2.449	0.666	3.115	3.883	1.056	4.938	4 749.381	1 291.189	6 040.570
<b>OVERALL TOTAL NTCD</b>	<b>33.227</b>	<b>9.033</b>	<b>42.260</b>	<b>52.682</b>	<b>14.322</b>	<b>67.004</b>	<b>64 439.33</b>	<b>17 518.78</b>	<b>81 958.11</b>

### Estimated Project Cost by Category

Expenditure category	Foreign exchange	L.C	Total	Foreign exchange	L.C	Total	Foreign exchange	L.C	Total
	(in UA million)			(in USD million)			(in BIF million)		
<b>1. Goods</b>	<b>0.008</b>	<b>0.054</b>	<b>0.062</b>	<b>0.01</b>	<b>0.09</b>	<b>0.10</b>	<b>16.0</b>	<b>104.0</b>	<b>120.0</b>
1.1. Supply and installation of rice hulling machines	0.008	0.043	0.052	0.01	0.07	0.08	16.0	84.0	100.0
1.2 Supply of small farm implements	0.000	0.010	0.010	0.00	0.02	0.02	0.0	20.0	20.0
<b>2. Works</b>	<b>26.893</b>	<b>6.548</b>	<b>33.441</b>	<b>42.64</b>	<b>10.38</b>	<b>53.02</b>	<b>52 155.7</b>	<b>12 698.1</b>	<b>64 853.8</b>
2.1 Works on the Gitega-Nyangungu segment	24.162	6.040	30.202	38.31	9.58	47.89	46 858.6	11 714.7	58 573.3
2.2. Development of socio-economic and commercial infrastructure	0.434	0.108	0.542	0.69	0.17	0.86	841.4	210.3	1 051.7
2.3. Rehabilitation of rural roads	0.875	0.219	1.093	1.39	0.35	1.73	1 696.0	424.0	2 120.0
2.4 Construction of pedestrian bridges	0.703	0.000	0.703	1.11	0.00	1.11	1 363.4	0.0	1 363.4
2.5 Construction of a heavy vehicle parking lot in Gitega;	0.720	0.180	0.900	1.14	0.29	1.43	1 396.3	349.1	1 745.4
<b>3. Consultancy services</b>	<b>1.079</b>	<b>0.787</b>	<b>1.866</b>	<b>1.71</b>	<b>1.25</b>	<b>2.96</b>	<b>2 091.9</b>	<b>1 526.7</b>	<b>3 618.5</b>
3.1. Road works monitoring and supervision	0.846	0.362	1.208	1.34	0.57	1.92	1 640.1	702.9	2 342.9
3.2 Monitoring and supervision of related works	0.174	0.075	0.249	0.28	0.12	0.40	338.3	145.0	483.4
3.3 Awareness-raising for project area communities	0.000	0.200	0.200	0.00	0.32	0.32	0.0	387.9	387.9
3.4. Project accounts audit	0.059	0.000	0.059	0.09	0.00	0.09	113.5	0.0	113.5
3.5. Project impact monitoring/evaluation	0.000	0.150	0.150	0.00	0.24	0.24	0.0	290.9	290.9
<b>4. Miscellaneous</b>	<b>0.000</b>	<b>0.218</b>	<b>0.218</b>	<b>0.00</b>	<b>0.35</b>	<b>0.35</b>	<b>0.0</b>	<b>423.6</b>	<b>423.6</b>
Project implementation monitoring	0.000	0.189	0.189	0.00	0.30	0.30	0.0	367.4	367.4
Opening of the project right-of-way	0.000	0.029	0.029	0.00	0.05	0.05	0.0	56.2	56.2
<b>Base cost</b>	<b>27.980</b>	<b>7.607</b>	<b>35.587</b>	<b>44.36</b>	<b>12.06</b>	<b>56.42</b>	<b>54 263.6</b>	<b>14 752.4</b>	<b>69 015.9</b>
Physical contingencies (PC), 10%	2.798	0.761	3.559	4.44	1.21	5.64	5 426.4	1 475.2	6 901.6
Financial contingencies [7.96% x (base cost + PC)]	2.449	0.666	3.115	3.88	1.06	4.94	4 749.4	1 291.2	6 040.6
<b>OVERALL TOTAL NTCD</b>	<b>33.227</b>	<b>9.033</b>	<b>42.260</b>	<b>52.68</b>	<b>14.32</b>	<b>67.00</b>	<b>64 439.3</b>	<b>17 518.8</b>	<b>81 958.1</b>

**Estimated Project Cost by Category and Source of Financing**

Expenditure Category	ADF/FSF				STATE OF BURUNDI				Total
	Foreign Exchange	L.C.	Total	%	Foreign Exchange	L.C.	Total	%	
	(in UA million)				(in UA million)				
<b>1. Goods</b>	<b>0.008</b>	<b>0.054</b>	<b>0.062</b>	<b>100.00%</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.00%</b>	<b>0.062</b>
1.1. Supply and installation of rice hulling machines	0.008	0.043	0.052	100.00%	0.000	0.000	0.000	0.00%	0.052
1.2. Supply of small farm implements	0.000	0.010	0.010	100.00%	0.000	0.000	0.000	0.00%	0.010
<b>2. Works</b>	<b>26.893</b>	<b>6.548</b>	<b>33.441</b>	<b>100.00%</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.00%</b>	<b>33.441</b>
2.1 Works on the Gitega-Nyangungu segment (89.22% FSF)	24.162	6.040	30.202	100.00%	0.000	0.000	0.000	0.00%	30.202
2.2. Development of socio-economic and commercial infrastructure	0.434	0.108	0.542	100.00%	0.000	0.000	0.000	0.00%	0.542
2.3. Rehabilitation of rural roads	0.875	0.219	1.093	100.00%	0.000	0.000	0.000	0.00%	1.093
2.4 Construction of pedestrian bridges	0.703	0.000	0.703	100.00%	0.000	0.000	0.000	0.00%	0.703
2.5 Construction of a heavy vehicle parking lot in Gitega;	0.720	0.180	0.900	100.00%	0.000	0.000	0.000	0.00%	0.900
<b>3. Consultancy services</b>	<b>1.079</b>	<b>0.787</b>	<b>1.866</b>	<b>100.00%</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.00%</b>	<b>1.866</b>
3.1. Road works monitoring and supervision	0.846	0.362	1.208	100.00%	0.000	0.000	0.000	0.00%	1.208
3.2 Monitoring and supervision of related works	0.174	0.075	0.249	100.00%	0.000	0.000	0.000	0.00%	0.249
3.3 Awareness-raising for project area communities	0.000	0.200	0.200	100.00%	0.000	0.000	0.000	0.00%	0.200
3.4. Project accounts audit	0.059	0.000	0.059	100.00%	0.000	0.000	0.000	0.00%	0.059
3.5. Project impact monitoring/evaluation	0.000	0.150	0.150	100.00%	0.000	0.000	0.000	0.00%	0.150
<b>4. Miscellaneous</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.00%</b>	<b>0.000</b>	<b>0.218</b>	<b>0.218</b>	<b>100.00%</b>	<b>0.218</b>
Project implementation monitoring	0.000	0.000	0.000	0.00%	0.000	0.189	0.189	100.00%	0.189
Opening of the project right-of-way	0.000	0.000	0.000	0.00%	0.000	0.029	0.029	100.00%	0.029
<b>Base cost</b>	<b>27.980</b>	<b>7.388</b>	<b>35.369</b>	<b>99.39%</b>	<b>0.000</b>	<b>0.218</b>	<b>0.218</b>	<b>0.61%</b>	<b>35.587</b>
Physical contingencies (PC), 10%	2.798	0.739	3.537	99.39%	0.000	0.022	0.022	0.61%	3.559
Financial contingencies [7.96% x (base cost + PC)]	2.449	0.647	3.096	99.39%	0.000	0.019	0.019	0.61%	3.115
<b>OVERALL TOTAL NTCD</b>	<b>33.227</b>	<b>8.774</b>	<b>42.001</b>	<b>99.39%</b>	<b>0.000</b>	<b>0.259</b>	<b>0.259</b>	<b>0.61%</b>	<b>42.260</b>

## PROCUREMENT AND CONTRACT AWARD ARRANGEMENTS

### A.4 Procurement and contract arrangements

All goods, works and services to be financed by the Bank grant shall be procured in accordance with the relevant rules and procedures governing the procurement of goods and works, or where necessary, the Rules and procedures for the recruitment of consultants. In all cases, the Bank's standard bidding documents shall be used. The various procurement arrangements under this project are summed up in the table below and detailed in the subsequent paragraphs.

**Table of procurements of works and services**

Expenditure category	Amounts in UA million					Total
	ICB	NCB	Short list	Other*	** Others apart from ADF	
<b>1. Goods</b>						
1.1 Supply and installation of rice hulling machines				0.061[0.061]		0.061[0.061]
1.2 Supply of small farm implements				0.012[0.012]		0.012[0.012]
<b>Sub-total 1.</b>				<b>0.073[0.073]</b>		<b>0.073[0.073]</b>
<b>2. Works</b>						
2.1 Road works on the Gitega-Nyangungu segment and construction of a heavy vehicle parking lot in Gitega	36.934[36.934]					36.934[36.934]
2.2 Development of socio-economic and commercial infrastructure and Rehabilitation of laterite rural roads.	1.060[1.060]					1.060[1.060]
2.3 Rehabilitation of rural roads surfaced with pavestones		0.882[0.882]				0.882[0.882]
2.4 Construction of pedestrian bridges				0.834[0.834]		0.834[0.834]
<b>Sub-total 2.</b>	<b>36.934[36.934]</b>	<b>1.942[1.942]</b>		<b>0.834[0.834]</b>		<b>39.711[39.711]</b>
<b>3. Consultancy services</b>						
3.1 Monitoring and supervision of road works and construction works on the Gitega heavy vehicle parking lot			1.435[1.435]			1.435[1.435]
3.2 Monitoring and supervision of related works			0.296[0.296]			0.296[0.296]
3.3 Awareness-raising for project area communities			0.237[0.237]			0.237[0.237]
3.4 Project accounts audit			0.069[0.069]			0.069[0.069]
3.5 Monitoring/evaluation of project impact				0.178[0.178]		0.178[0.170]
<b>Sub-total 3.</b>			<b>2.038[2.038]</b>	<b>0.178[0.178]</b>		<b>2.216[2.216]</b>
<b>4. Miscellaneous</b>						
Monitoring of project execution					0.260	0.260
<b>Sub-total 3.</b>					<b>0.260</b>	<b>0.260</b>
<b>OVERALL TOTAL NTCD</b>	<b>36.934[36.934]</b>	<b>1.942[1.942]</b>	<b>2.038[2.038]</b>	<b>1.086[1.086]</b>	<b>0.260</b>	<b>42.260[42.000]</b>

Key

[ ] : Means financed by the Bank

\* "Other" : Means shopping and direct purchase.

\*\* : "Not financed by the Bank"

### A8.2 Procurement arrangements

All goods, works and services shall be procured in accordance with the Bank's relevant rules of procedure on procurement, or where necessary, the Bank's rules of procedure for the recruitment of consultants. In all cases, the Bank's standard bidding documents shall be used.

**Executing Agency:**

Burundi's Highways Authority, which is responsible for project implementation, shall procure all goods, works and consultancy services. It shall benefit from the technical assistance established under the RN 5 Nyamitanga-Ruhwa road rehabilitation project, which is also financed by the Bank.

**Goods:**

- The procurement of about 10 (ten) rice hulling machines for women's associations in the project area for the sum of UA 0.061 million shall be done through shopping. This will comprise: (i) supply; (ii) the construction of an operating unit; (iii) installation; and (iv) a familiarization phase on the use and maintenance of the machines under a customer service arrangement;
- The procurement of about 20 (twenty) lots of small farming implements for women's associations in the project area for the sum of UA 0.012 million shall be done through shopping.

The shopping option for procurement of these goods is justified by the low amounts of these procurements and the existence of a sufficient number of qualified suppliers to guarantee competition.

**Works:**

Procurement of works for:

- Development and asphaltting of the Gitega-Nyangungu road segment; and construction of the heavy vehicle parking lot in Gitega, for UA 36.966 million will be done as a single lot through international competitive bidding;
- Rehabilitation of eighteen (18) km of laterite rural roads; development of socio-economic and commercial infrastructure for UA 1060 million will be done as a single lot through international competitive bidding;
- Rehabilitation of four (4) km of rural roads surfaced with pavestones for UA 0.882 million, distributed into four (4) lots will be done through national competitive bidding;
- Construction of pedestrian bridges for UA 0.835 will be entrusted to the NGO Helvetas Ethiopia. This NGO holds the exclusive right to a technology for the construction of suspended pedestrian bridges and has built similar structures in Ethiopia. It will assist the local communities in the construction of such structures and be responsible for training them and assisting the country to establish national norms in this area. The choice of this mode of procurement is justified by the need to achieve certain social objectives of the project, notably by relying on the

participation of local communities and an NGO. It should be noted that the collaboration between the Highways Authority and Helvitas should commence during the first phase of this project with the construction of two experimental structures. The purpose of the current works, therefore, is to consolidate the achievements of the first phase.

**Consultancy services:**

Procurement of consultancy services for:

- Works monitoring and supervision (road and Gitega heavy vehicle parking), for UA 1.435 million will be done through consultation of a short list of consultancy firms following the Quality- and Cost-based Selection (QCBS) method;
- Works monitoring and supervision (related works, excluding the Gitega heavy vehicle parking lot and pedestrian bridges), for UA 0.296 million will be procured through consultation of a short list of consultancy firms following the Quality- and Cost-based Selection (QCBS) method.
- The organization of awareness-raising for project area communities on road safety, environmental protection and protection against sexually transmitted diseases, including HIV/AIDS and other pandemics for UA 0.237 million will be procured through consultation of a short list of specialized firms, associations or NGOs. The procedure will follow the Quality- and Cost-based Selection (QCBS) method;
- Procurement of project account audit services for UA 0.069 million will be done through consultation of a shortlist of audit firms and following the Least-Cost Selection (LCS) method.
- Procurement of services for monitoring/evaluation of the project's socio-economic impact for UA 0.178 million will be done through direct agreement with the University of Ngozi. The choice of this procedure is justified by the fact that the University was chosen to provide the same services during Phase I and should start providing services in the third quarter of 2011. Entrusting it with these services will avoid duplication of data collection from the project area and ensure consistency in the interpretation of results.
- For all consultancy contracts estimated at more than UA 200,000, the procurement notice must be published in UNDB and on the Bank's website. The OdR may also publish calls for expressions of interest in a journal with wide international circulation or a technical review. For service contracts estimated at under UA 200,000, the OdR may limit publication of the call for expressions of interest to national and regional newspapers. However, any eligible consultant, from within or outside the region, that wishes to provide the requested services may express the desire to be included on the short list.

- ***General Procurement Notice (GPN)***
  - The text of the General Procurement Notice will be agreed upon with the OdR and published on the Bank's website and on UN Development Business (UNDB) online as soon as the project is approved by the Bank's Board of Directors.
- ***Review procedures:***
  - The following documents shall be submitted to the Bank for review and approval prior to publication: ○ Specific calls for bids or expressions of interest; ○ shortlist of consultants; ○ Bidding documents or requests for proposals from consultants; ○ Evaluation reports on bids from contractors/suppliers, comprising contract award recommendations (goods and works) or an evaluation report on the technical proposals of consultants; ○ Draft goods and works contracts, if these have been amended and are different from the drafts included in the bidding documents; ○ Evaluation reports on financial proposals from consultants comprising contract award recommendations accompanied by the record of negotiations and the draft contract signed by the parties.
- ***Procurement plan:***
  - The OdR prepared a draft procurement plan which will be submitted to the Bank for approval prior to the loan negotiations. The procurement plan will cover an initial period of 18 months. The OdR shall update the said plan every year or when necessary, but still over the next 18 months during the project implementation period. Any proposal to modify the procurement plan must be submitted to the Bank for prior approval.

**Procurement Plan**

Ref	Contract Description	Est. Amount (UA Million)	Procurement Mode	Pre-qualification? (Y/N)	National Preference? (Y/N)	Bank review	Expected Procurement process launching date
1	Road works on the Gitega-Nyangungu segment and construction of a heavy vehicle parking lot in Gitega	36,934	ICB	N	N	Prior review	September 23, 2011
2	Development of socio-economic and commercial infrastructure and Rehabilitation of laterite rural roads	1,060	ICB	N	N	Prior review	December 13, 2012
3	Rehabilitation of rural roads surfaced with pavestones	0,882	NCB	N	N	Prior review	December 13, 2012
4	Construction of pedestrian bridges	0,834	Direct contracting	NA	N	Prior review	January 26, 2012
5	Monitoring and supervision of road works and construction works on the Gitega heavy vehicle parking lot	1,435	QCBS	Short list	NA	Prior review	January 26, 2012
6	Monitoring and supervision of related works	0,296	QCBS	Short list	NA	Prior review	February 2, 2012
7	Awareness-raising for project area communities	0,237	QCBS	Short list	NA	Prior review	January 26, 2012
8	Project accounts audit	0,069	LCS	Short list	NA	Prior review	January 26, 2012
9	Monitoring/evaluation of project impact	0,178	Direct contracting	NA	NA	Prior review	November 3, 2011
10	Supply and installation of rice hulling machines	0,061	Shopping	NA	N	Prior review	August 5, 2013
11	Supply of small farm equipment	0,012	Shopping	NA	N	Prior review	August 5, 2013