

**REPUBLIC OF RWANDA**



# **Rwanda Development Indicators 2006**

**Kigali, May 2008**

**National Institute of Statistics of Rwanda (NISR)**

© National Institute of Statistics of Rwanda  
<http://www.statistics.gov.rw>  
Headquarters: Muhima  
Kigali –RWANDA  
P.o Box 6139 Kigali, Rwanda

The current edition of the « Rwanda Development Indicators » was prepared by the NISR team supported by staff from line Ministries and Institutions, under the guidance and Coordination of the Director General of the NISR, Dr. Ir. MUNYAKAZI Louis. NISR group was composed of NYARWAYA Jean Baptiste, GATARAYIHA Jean Philippe, MWIZA Ernest, GATERA Emmanuel, NDENGEYINTWARI Didier, SIBOMANA Oscar, MUGABO Théogène, MURANGWA Yusuf, MUNYALIBANJE Apollinaire, MUKANYONGA Apolline, SEGAHWEGE Astride. It included also MWITIREHE Viviane, AMAHORO BITYO Adha, KARAMAGE Callixte NIZEYIMANA Willy and KAMALI Wilson (BNR), NTEGANO Abel and BIZIMANA MUTIMURA Javan (MINECOFIN), Dr. NKUSI Emilien (MINISANTE) KAMUKAMA Jolly (MIJEPROFE), UWAYEZU Béatrice (MINEDUC), MUZINDUTSI Antoine(ONATRACOM), Jane SEBUJISHO (ORTPN), GAHONZI Léonard (RCCA), MULISA Alex (REMA) and KANYANGEYO Agnès (RRA).

The document was edited by NYARWAYA Jean Baptiste.

All rights reserved

---

## **RWANDA DEVELOPMENT INDICATORS - 2006**

### **Rapport final 2008**

All rights reserved © May 2008 -  
National Institute of Statistics of Rwanda (NISR)

The content of this publication may be reproduced under condition to mention the source:

recommended quote:

National Institute of Statistics of Rwanda (NISR) : 2008 “Rwanda Development Indicators- 2006”

Rwanda, May 2008

## Demographic Indicators

Population(mid 2006) : 9.058.392

Population density (per sq.Km): 344

Under 5 years old ( % of the total population): 16.3

Under 15 years old ( % of the total population) : 42.1

15 to 64 years old ( % of the total population) : 55.2

Population of 65 years old and over ( % of the total population) :2.7



## Territorial Surface

Area– 26.338 Km<sup>2</sup>

Capital City: Kigali

Capital: Kigali

Official languages : Kinyarwanda, English, French

Source: National Institute of Statistics of Rwanda

P.O Box 6139 Kigali, Rwanda

# Table of contents

Acknowledgements	2
Table of contents	3
Preface	4
Erreur ! Signet non défini.	
Introduction	5
Executive Summary	6
O. Poverty	12
I. National Accounts	16
Annex I : Table 1.1 – 1.5.	18
II. Agriculture Development	19
Annex II : Table 2.1 – 2.8.	20
III. Industries	21
IV. Services	26
V. Inflation and exchange rate	44
Annex V: Table 5.1 – 5.6	52
VI. Balance of Payments and External trade	53
Annex VI : Table 6.1 – 6.8.	62
VII. Money, Credit, Interest rate and Financial System	64
Annex VII : Table 7.1 – 7.8.	69
VIII. Public Finance	70
Annex VIII : Table 8.1.	74
IX. Public debt	75
Annex IX : Table 9.1 – 9.5.	81
X. External aid	82
Annex X : Table 10.1 – 10.2.	83
XI. Employment	84
XII. Gender and Development	92
XIII. Health Development	103
XIV. Development in Education	121
Annex XV : Table 14.1 – 14.13.	123
XV. Environnement	124
XVI. Local Administration and Good Governance	131
Acronyms and Abbreviations	146
Technical notes on the Rwanda Development Indicators (RDI)	149

The National Institute of Statistics of Rwanda publishes, for the second consecutive year since its creation, the 9th edition of the « Rwanda Development Indicators ».

Like the previous editions, this document provides to users, social and economic indicators to enable policy and decision - makers, to carry out objective judgment on development policies and programs in order to identify weak areas and make necessary adjustments.

The document provides to researchers and academicians, a time series of data covering key social and economic developments of our country.

This document presents key data for monitoring and evaluating national and international policies, such as the EDPRS, the Vision 2020 and the Millennium Development Goals (MDGs).

Over the last five years, Rwanda has made considerable efforts with the objective of improving living conditions of the population. Poverty has fallen by 3%, from 60% of the population living under the poverty line in 2000/2001 to 57% in 2005/2006. The net enrolment rate in primary school is 94.8% with a rate of 97% for girls against 93% for boys. The GDP per capita is estimated at 314 USD which is a third of the objective set in the vision 2020, of 900 USD.

The appreciation of the document is at the discretion of the reader and the contribution of everyone is welcome for improvement of this publication. We strongly thank all the persons who contributed, directly or indirectly, to the development of our country

**James MUSONI**  
**Minister of Finance and Economic Planning**

## INTRODUCTION

This document « the Rwanda Development Indicators» is an annual publication of the National Institute of Statistics of Rwanda (NISR). Its objective is to present the recent economic and social developments of the country.

Data contained in this document covers several domains like, National accounts, Agriculture development, Industrial production, Tourism, Transport, ICT, Consumer price index, Balance of payment and external trade, Monetary development and interest rate, Public finance, Public debt, External aid, Employment, Gender and development, Health and Education development, Environment and Local administration and good governance.

Statistical data presented in this volume come mainly from administrative sources; while others are results of the surveys carried out by the NISR such as the EICV and DHS, among others.

For more details regarding this publication, contact :

**MURANGWA MAGO Yusuf,**  
**Director of Economic Statistics,**  
**Tel : 08845758**

---

The original version of this document is in French which has been translated to English. It is available on CD-ROM and on the website of the National Institute of Statistics of Rwanda and also available on hard copy.

## ACRONYMES & ABREVIATIONS

AfDB/BAD	African Development Bank/Banque Africaine de Développement
BANCOR	Banque à la Confiance d'Or
BCDI	Banque de Commerce, de Développement et d'Industrie
BCR	Banque Commerciale du Rwanda
BEI	Banque Européenne d'Investissement
BHR	Banque de l'Habitat du Rwanda
BK	Banque de Kigali
BNR	Banque Nationale du Rwanda
BoP/BdP	Balance of paiements/Balance des Paiements
BRD	Banque Rwandaise de Développement
CEPEX	Central Public Investment and External Finance Bureau / Central des Investissements Publics et Bureau des Financements Externes
CDF	Community Development Fund
c.i.f	Cost, insurance, freight
CNCA	Commission Nationale de Contrôle des Assurances
CNDPR	Commission Nationale de Défense des Droit de la Per- sonne
CNUR	Commission Nationale pour l'Unité et la Réconciliation
COGEAR	Compagnie Générale d'Assurance et de Réassurance
COGEBANQUE	Compagnie Générale de Banques
CORAR	Compagnie d'Assurance et de Réassurance
CPI/IPC	Consumer price index/Indice des Prix à la Consommation
CPN	Consultations Prénatales
CSR	Caisse Sociale du Rwanda
EDPRS	Economic Development and Poverty Reduction Strategy
EICV	Enquête Intégrale sur les Conditions de Vie des Ménages
EDSR	Enquête Démographique et de Santé
ELECTROGAZ	Compagnie de Production et de Distribution d'eau et d'électricité
EREBS	Equilibre ressources et emplois des Biens et Services
EU/UE	European Union/Union Européenne
Ex-FAR	Ex Forces Armées Rwandaise
DEMP	Projet de Décentralisation et Gestion de l'Environnement oeuvrant dans la Province de l'Ouest.
FAD	Fonds Africain de Développement
FARG	Fonds d'Assistance aux Rescapés du Génocide
FAO	UN Food and Agriculture Organization
FEM	Fonds pour l'Environnement Mondial.
FIDA	Fonds International de Développement Agricole
Frw	Franc Rwandais
f.o.b	Free on board
GoR	Government of Rwanda
ha	Hectare
HIV	Human immunodeficiency virus
IDA	International Development Association (World Bank)
IEC	Information, Education et Communication
IMF/FMI	International Monetary Fund/Fonds Monétaire International
IRC	Institutional Reform Credit
ISAE	Institut Supérieur d'Agriculture et d'Elevage
ISF	Indice Synthétique de Fécondité

ISIC	International Standard Industrial Classification
IST	Infections Sexuellement Transmissibles
Kg	Kilogram
KIE	Kigali Institute of Education
KIST	Kigali Institute of Science, Technology and Management
km	Kilometer
kwh	Kilowatt-hour
MINAGRI	Ministère de l'Agriculture et des Ressources Animales
MINALOC	Ministère de l'Administration Locale, du Développement Communautaire et des Affaires Sociales
MINECOFIN	Ministère des Finances et de la Planification Economique
MINEDUC	Ministère de l'Education
MININFRA	Ministère des Infrastructures
MINISANTE	Ministère de la Santé
MINITERE	Ministère des Terres, de l'Environnement, des Forêts de l'Eau et des Mines
NGO/ONG	Nongovernmental organization/Organisation Non gouvernementale
NISR/INSR	National Institute of Statistics of Rwanda/ Institut National de la Statistique du Rwanda
ODA/APD	Official development assistance/Aide Publique au Développement
ONATRACOM	Office National de Transport en Commun
ONP	Office National des Postes
ONUDI	Organisation des Nations Unies pour le Développement Industrielle
PAIGER	Projet d'Appui Institutionnel à la Gestion de l'Environnement au Rwanda
PANA	Programmes d'Action Nationaux d'Adaptation aux Changements Climatiques
PCIME	Prise en Charge Intégrée des Maladies de l'Enfance
PDL-HIMO	Programme de Développement Local à Haute Intensité de Main-d'œuvre
PEV/EPI	Programme Elargi de Vaccination/Expanded Program on Immunization
PIB/GDP	Produit Intérieur Brut/Gross domestic product
PIP	Programme des Investissements Publiques/Public Investments Program
PoPs	Polluants Organiques Persistants
PPTE/HIPC	Pays Pauvres Très Endettés/Highly Indepted Poor Countries
PRSP	Projet de Restructuration du Secteur Privé
PTBA	Plans de Travail et Budgets Annuels
RAMA	La Rwandaise d'Assurance Maladie
RDI	Rwanda Development Indicators
REMA	Rwanda Environment Management Agency/Office Rwandais de Protection de l'Environnement
RGPH	Recensement Général de la Population et de l'Habitat
RWANDATEL	Compagnie Rwandaise de Télécommunication
SDR	Special drawing right
SIMTEL	Société Interbancaire de Monétique et de Télé-compensation
SNA	System of national accounts
SNR	Service National de Recensement
SONARWA	Société Nouvelle d'Assurances au Rwanda
SORAS	Société Rwandaise d'Assurance
sq. Km	Square kilometer
TCC	Treasury Credit Checks
TPR	Taxes Professionnelles
TVA	Taxe à la Valeur Ajoutée
UK	United Kingdom
UN/NU	United Nations/Nations Unies
UNDP/PNUD	United Nations Development Programme/Programme des Nations Unies pour le Développement

UNEP/PNUE	United Nations Environment Programme/Programme des Nations Unies pour l'Environnement
UNR	Université Nationale du Rwanda
USA	United States of America
USD	United States Dollar
WB/BM	World Bank/Banque Mondiale
WFP/PAM	World Food Programme/Programme Alimentaire Mondial
WHO/OMS	World Health Organization/Organisation Mondiale de la Santé

# Executive Summary



The Gross Domestic Product of 2006 is estimated at 1,583 billions Rwf for a population of about 9.0 millions inhabitants, that is a GDP per capita of 175,000 Rwandan francs or USD 314, at the nominal exchange rate of 558 Rwf for 1 US\$.

The agriculture sector represented 41% of the GDP; the industrial and service sectors represented 13% and 39% respectively.

The GDP at constant 2001 prices registered a growth rate of 5% from 2005, consecutive to a growth rate of 5.3% and 7.1% in 2004 and 2005 respectively. Agricultural production underwent a growth rate of 1% following a growth of 5% in 2005. During the year 2006, the industry and the services rose by 8% each.

During the last 5 years, the average GDP growth rate was 6%, it was 3% for agriculture, 7% for industry and 8% for services.

Since 2003, the implied GDP deflators (obtained by dividing the GDP at current prices by the GDP at constant prices) underwent a consistent increase. It had recorded an annual growth of 21.9% in 2003, 8.9% to 13.2% between 2004 and 2006.

Investments (gross capital formation) are estimated to represent 15% of the GDP in 2006; the final consumption expenditure by Government represented 18% of the GDP against 86% for the private final consumption expenditure.

Investments (gross capital formation) are estimated to represent 15% of GDP in 2006. Since the year 1999, the private sector has sustained its role as the prime mover of the economy having 81% to 82% of the total consumption expenditure in the country, the final expenditure by government represented 18% to 19%.

Regarding mode of production, the monetized informal and the non monetary sector represented respectively 35% and 31% of the GDP; the formal sector representing only 23% of the GDP, while the government (including the NPISH) contributing 11% only.

The year 2006 has been characterized by strong seasonal disruptions and bad climatic conditions which resulted to a decline in agricultural production in general.

In comparison to the year 2005, cereals production dropped strongly (-11%). In terms of volume, roots and tubers produced in 2006 generally declined, while the volume of the legumes produced in 2006 registered a strong growth. The production of bananas seems to be constant over time while the production of vegetables and fruits registered a decrease of 8% in 2006.

From the year 2005, mining recorded a slight rise of 1.8% in 2006. Indeed, the productions of cassitérite and Colombo tantalite registered a respective drop of 15.4% and 31.8%. On the other hand the volume of Wolfram produced in 2006 increased by 157.7%, in comparison with the previous year.

The food processing industries performed relatively well. The production of alcoholic and non alcoholic drinks went up by 27.4% in comparison with the previous year. Tobacco production decreased by 8.0% following the relocation, in mid 2006, of the only cigarettes factory.

Sugar production declined by 1.1% in 2006, the bakery sector continued growing with a rise of 8.0% of its production.

In 2006, the production of milk remained unchanged with a slight decline of 0.1%. The volumes of rice and animal feed underwent a respective increase of 1.2% and 8.0% in relation to the previous year.

The volume of juice which amounted to 321.2 milliliters in 2004, went up to 1,048 and 1,216 milliliters respectively in 2005 and 2006. Also, flour recorded a remarkable rise. After having tripled in 2005, the increase is estimated at 6.9% in 2006.

Coffee production increased notably by 43.5% in 2006 after a decline of 35.3% in 2005. Tea production rose by 3.1% in 2006.

The production of soap dropped by 13.1% in 2006, following a fall of 11.0% and 15.5% respectively in 2005 and 2004. The production of paints recorded a strong growth of 68.5% in 2006. Battery production increased by 24.4%; it had increased fourfold in 2005.

The production of pyrethrum went up from 20 tons in 2005 to 30 tons in 2006, recording an increase of 53.7%.

The production of textile marked a decrease of 6.5% and 4.5% respectively in 2005 and 2006. Skin and hides production has continuously increased with a growth of 12.4% in 2006, after a rise of 46% in 2005.

The production of cement rose slightly by 1.4% in 2006 after a respective drop of 0.8% and 3.0% in 2004 and 2005. The production of PVC pipes increased by 7.1% in 2006; metal roofing sheets and nails have increased respectively by 13.5% and 35.5% in 2006.

The use of power generators increased the production of electricity over the last two years, with a rise of 27.5% and 45.4% respectively in 2005 and 2006. In 1997, water losses represented 60.4% of the total production, the average of the years 1998 to 2003 reached 47.5%. The losses are in decrease and represent only 33.1%, 30.9% and 31.7% respectively in 2004, 2005 and 2006.

ORTPN's mission is to preserve the rich biodiversity of Rwanda protected areas, and promote tourism in collaboration with all stakeholders for the benefit of all Rwandan people. In 2002, the Rwanda Tourism Strategy portrayed the goal of generating \$100MM in tourism receipts and 70,000 visitors by 2010.

Targets set include length of stay of 7 days, spending \$ 200 per day. Targets for 2006 were set at \$31 MM tourism receipts and 30 000 visitors, each staying 5 days and spending a minimum of \$200 per day.

In general, visitors to all national parks continued a sustained upward trend, with overall number of visitors in 2006 increasing by more than 27% over the 2005 figures. This growth is fuelled by non-residents visitors who constituted just over three fifths of the total park visitors (61.3%), while local visitors and residents were 29.8% and 8.8% respectively. This growth curve is expected to continue into the future as Rwanda gains international acceptance as a tourist destination.

In 2006, the number of passengers boarding buses of the National Public Transport Authority (ONATRACOM), grew by 23% from 2005. The number of buses increased by 103.2% during the last quarter of the year 2006, growing from sixty two to one hundred and twenty six buses.

Vehicles in circulation on roads in Rwanda are composed of locally registered and foreign registered vehicles. They are composed of Buses, Cars, Jeeps, Microbuses, Minibuses, Motorcycles, Pick-ups, Semi-trailers, Special engine vehicles, Trailers and Trucks. In 2003, 22,023 vehicles were registered. Registration was 7,647 in 2004, 9,413 in 2005, 7,677 in 2006 and 6,146 between January and September 2007.

Domestic air transport passengers increased from 1,371 to 4,029 in years 2005 and 2006 respectively, recording a 193.9 percentage increase. This has been as a result of the increase in the number of flights by the national carrier (Rwandair Express) which flies thrice a week to and from Kamembe.

Total International passenger movements embarking, disembarking and in transit have registered an increasing trend over the last five years. The figures recorded in 2005 showed an extraordinary increase spurred by international conferences taking place in the country at that time.

During the year under review, the gross premium written by the industry was Rwf 10,332 millions compared to Rwf 9,519 millions in 2005 representing a growth of 9% following an increase of 18% in 2005.

Statistics show that there was an improvement in settlement of claims for policy holders. Claims paid increased from 2,169 millions to 3,523 millions in 2005 and 2006 respectively indicating a 62% increase as compared to 15% recorded in 2005.

In ICT, it is worth noting results on the usage and penetration

- National Government reports the highest levels of ICT Access, but 20% still have achieved the level of CT Only
- Local Government falls into the two lowest categories (94%), driven by lack of access to basic ICT infrastructure.
- Large Businesses are concentrated (83%) in the two lowest levels of ICT engagement.
- SMEs are the most evenly distributed across the spectrum, reflecting the varied conditions under which SMEs operate in Rwanda. However, 74% are classified as Non-ICT or CT-Only, indicating that they have not integrated PCs into their operations.
  
- The UN System reports the highest level of ICT intensive usage with 85%.
- The NGOs sector comes in second position with 68%;
- The public sector is performing more than the private sector with an intensive usage rate of 59% versus 50%.
  
- The UN System reports the highest level of Internet intensive usage of 100%
- The NGOs come in second position with an intensive internet usage of 45%
- The Public sector in the third position with 26% and 23% for the private sector with the lowest intensive internet usage.
  
- It appears that private schools and institutions have better access to internet with 38% versus 26% public schools and institutions.
  
- About 18% of public schools have websites compared to 13% for private schools.
  
- Public institutions in the health sector have a better penetration rate of PC at 100%.
  
- The private sector in Health performs better than the public regarding internet access with a rate of 42% versus 22% for the public sector.
  
- In urban area, the rate for ICT usage regarding Radio, phones and PC is much higher (61%, 14% and 0.8%) than in the rural with respectively 40%, 0.6% and 0, 01%).
- This gap is due basically to access facilities like electricity, mobile network coverage with a higher density in urban than in rural areas.

In 2006, the average rate of inflation was 8.9%. This high rate of inflation can be explained by the increase in prices for some categories of products. Among these, food products and non alcoholic beverages registered a price increase of 9.92%. In 2006, the price index for local products increased by 11.2% while the index for imported products had an increase of only 2.8%.

During the period 2000-2006, the Balance of Payments of Rwanda recorded a surplus on the global balance, except in 2003 where the global balance was a deficit of 35.7 millions of USD. The commercial balance of Rwanda is showing structural deficit with very low level of exports compared to imports.

The money supply went up from 218.4 to 285.6 billions Frw between 2005 and 2006 (an increase of 30.8%). This increase reached 16.6% between 2004 and 2005. This accelerated growth results from the considerable rise of external assets (+28.2%) as well as internal assets (+23.1%).

Due essentially to external disbursements for budget and projects support, net external assets grew from 222.4 to 285.1 billions Frw in 2005 and 2006, registering an increase of 28.2%.

The internal assets of the banking system increased from -3.9 to 0.9 billions Frw between 2005 and 2006, with a rise of 23.1%.

In 2006, the collected fiscal and customs receipts reached an amount of 193.6 billions Frw against 188.6 billions projected in the finance law review and 183.6 billions stated in the poverty reduction program. The fiscal revenues went up by 18% between 2005 and 2006; this rise was 20.7% in 2005. In percentage of the GDP, these revenues represented 13.1% against 13.5% during the previous year.

At the end of the year 2006, the nominal external debt rose to 477.6 millions US dollars. This is divided in three categories of creditors. The multilateral debt remains the most dominant with an outstanding amount of 391.9 American dollars, or 82% of the total debt. The bilateral debt of the Paris club represents an amount of 4.4 millions USD or 0.92% of the external debt and the non club Paris club debt at 81.3 millions dollars, which represents over 17% of the total outstanding debt.

The domestic debt of Rwanda is estimated at 302.08 Millions US dollars in 2006, having increased by 28.4% from the year 2005.

Activity rates have fallen from 85.8% in 2001 to 83.1% in 2006. Women activity rates are little higher than those for men.

In the short reference period of seven days preceding the interview, more people were unemployed (9.7%), than in the longer reference period of 12 months preceding the interview (1.2%).

## O. POVERTY

### 0.1. Introduction



In 2005, the Department of Statistics of the Ministry of Finance and Economic Planning which later became the National Institute of Statistics of Rwanda, carried out the second Household Living Conditions Survey (EICV-2). Data from this 2005/06 survey were at national and provincial levels compared with the 2000/01 results.

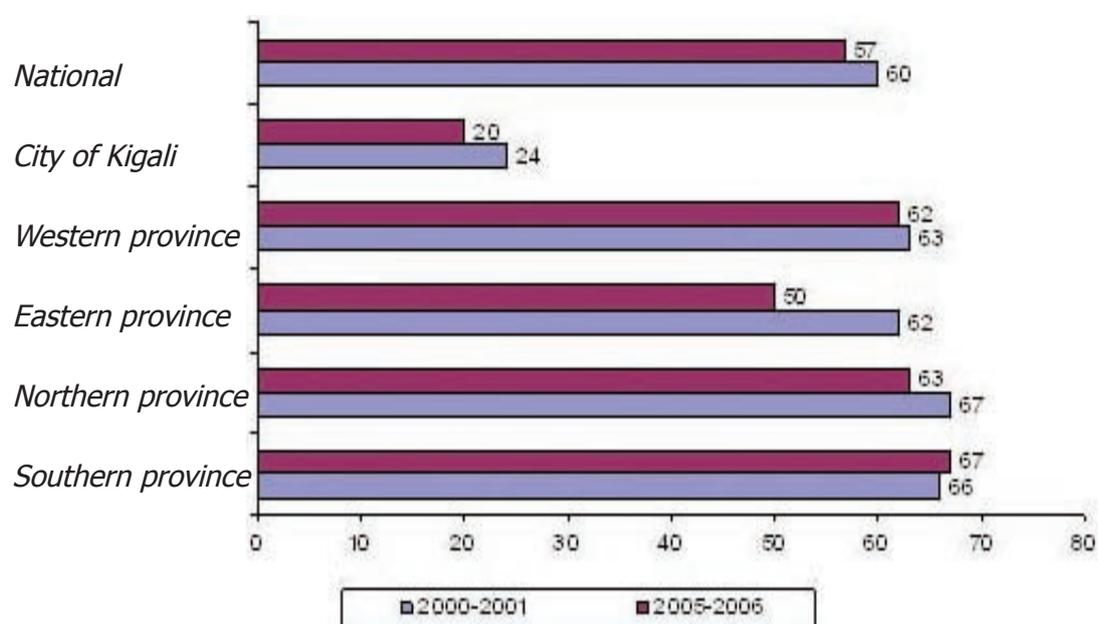
The two surveys captured information on household's income, production, consumption and expenditure including the demographic, social and economic characteristics of the population such as employment, health and level of education.

### 0.2. Calculation methodology

There exist several methods to estimate poverty. During the analysis of the EICV-2005/06, the method that was used considered the poverty line as the level of costs that covers the minimum adult's basic needs: this means that a person must consume a well selected meal that provides at least 2500 calories per day, and must spend also on the basic non food products.

The EICV1 (2000/01) estimated this cost at 175 Frws for each adult per day using the January 2001 prices. In EICV2 (2005/06), the same methodology was applied to define the poverty line. This cost was then estimated at 250 Frws per day to cover the same needs by using the January 2006 prices.

*Graph 0-1: Poverty at national and Province levels (in percentages)*



Source : EICV 2001 ; EICV 2005

It's shown in the graph that at the national level, poverty incidence decreased, from 60% of the population living under the poverty line in 2000/01 to 57% in 2005/06; with an improvement of 4 percentage point in the City of Kigali (24% in 2000/01 against 20% in 2005/06) and in the Northern Province (67% in 2000/01 against 63% in 2005/06).

The same diagram shows a significant improvement in the Eastern Province with 62% of the population living under the poverty line in 2000/01 against 50% in 2005/06. In the Western Province, poverty incidence reduced by only 1% from 2000/01 to 2005/06.

As for the impact of the poverty incidence growth, it appears that the level of consumption is high in the richest quintiles.

**Graph 0-2: Growth incidence curve**

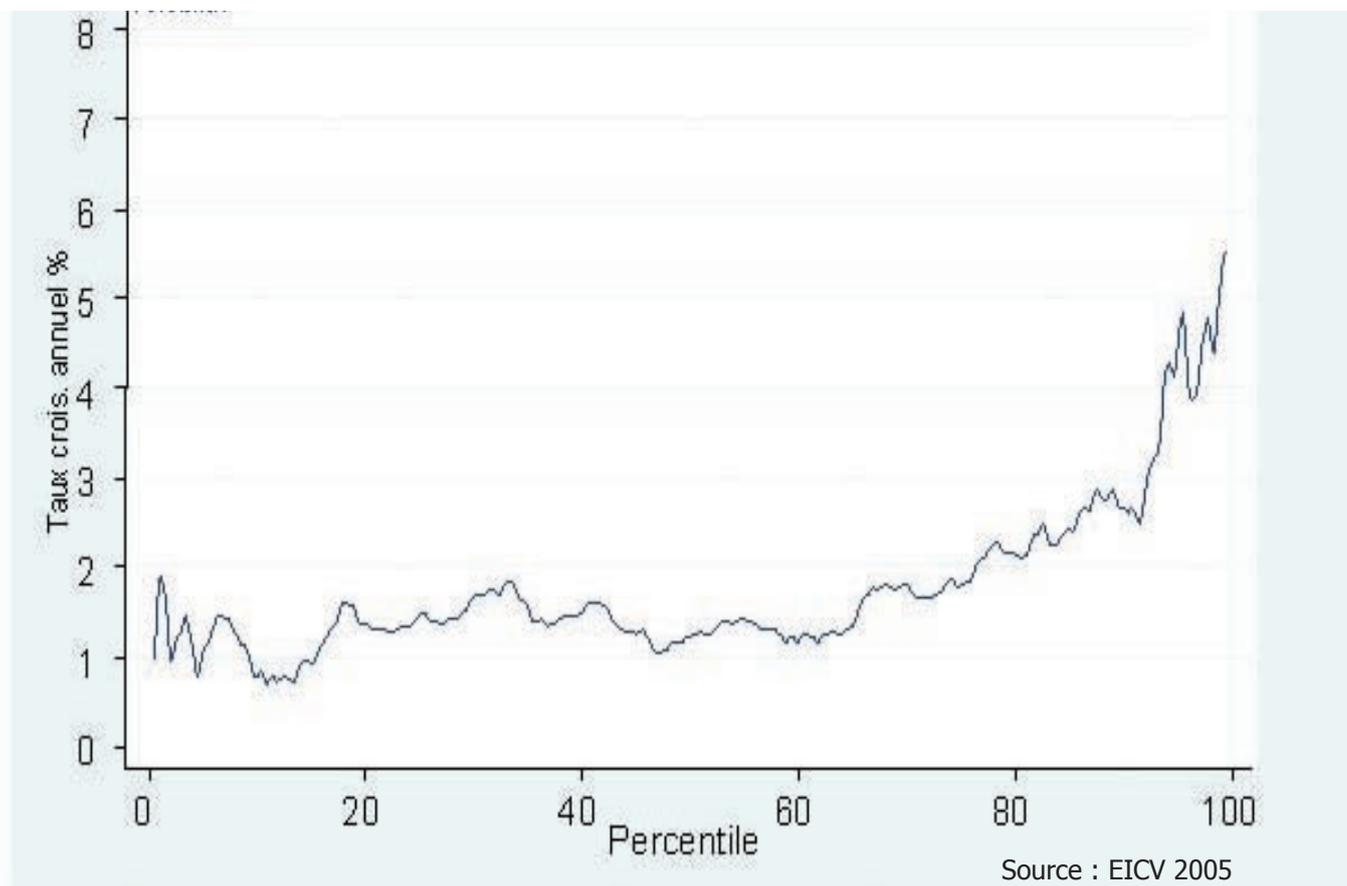


Table 0-1 shows the main source of income, it indicates that:

- in Kigali, non farm activities and non farm independants are the most sources of income;
- in other areas, the main sources of income are agriculture, non farm and independent non farm activites.

**Table 0-1: Main Source of income by strata, EICV-I and EICV-II**

Survey Stratum	Agriculture	Independant non farm activities non agricole	Waged work		Not working
			Travail agricole	Emploi non agricole	
<b>EICV1</b>					
Kigali	6,7%	27,6%	1,2%	51,8%	12,7%
Other urban areas	60,1%	11,3%	4,6%	17,8%	6,1%
Rural area	75,3%	5,4%	6,4%	5,4%	7,5%
<b>Total</b>	<b>68,6%</b>	<b>7,7%</b>	<b>5,8%</b>	<b>10,1%</b>	<b>7,8%</b>
<b>EICV2</b>					
Kigali	8,2%	21,2%	1,5%	53,9%	15,3%
Other urban areas	62,2%	12,2%	6,9%	10,6%	8,1%
Rural area	64,4%	9,8%	8,9%	7,7%	9,3%
<b>Total</b>	<b>60,0%</b>	<b>10,9%</b>	<b>8,1%</b>	<b>11,4%</b>	<b>9,6%</b>

Source : EICV 2001, EICV 2005

#### 0.4. Groups exposed to poverty

In Rwanda, the tragic events of 1994 resulted in several vulnerable groups of the population. These are the households headed by children, widows, disabled and the aged people.

**Table 0-2 : Poverty incidence in vulnerable groups**

	EICV1		EICV2	
	Group Population (%)	Poverty level	Population (%)	Poverty level
Female head of household	27.6	66.3	23.8	60.2
Widow head of household	22.0	67.7	18.7	59.9
Children head of household	1.3	60.1	0.7	56.9
<b>All households</b>	<b>-</b>	<b>60.4</b>	<b>-</b>	<b>56.9</b>

Source : EICV 2001, EICV 2005

The level of poverty decreased considerably for households headed by vulnerable groups with a drop of 6.1% percentage points for women, 6.8 for widows and 3.1 for children head of households. This indicates a positive impact of the programs for these groups

#### 0.4. Wealth and inequality.

EICV-2 shows that the level of household consumption expenditure increased by 3% over the five years period. Though poverty has decreased, household's consumption registered a rise in some households and a drop in others. The table below summarizes the situation between 2000/01 and 2005/06. It's worth noting that inequality, measured by the GINI coefficient that . The level of inequality was even high in 2000/01 with a Gini coefficient of 0.47 which reached 0.51 in 2005/06.

*Table 0-3: Distribution of inequalities.*

	Consumption growth	Gini Coefficient	
		EICV-1	EICV-2
<b>Stratum</b>			
Kigali City	2.1	0.486	0.474
Other urban	1.5	0.521	0.515
Rural	3.7	0.374	0.439
<b>Province</b>			
Kigali City	1.7	0.520	0.499
South	4.3	0.394	0.510
West	2.0	0.418	0.465
North	1.2	0.417	0.407
East	6.1	0.382	0.434
National	3.0	0.473	0.508

Source : EICV 2001, EICV 2005

## 1. NATIONAL ACCOUNTS

### 1.1. Introduction

#### I. National Accounts

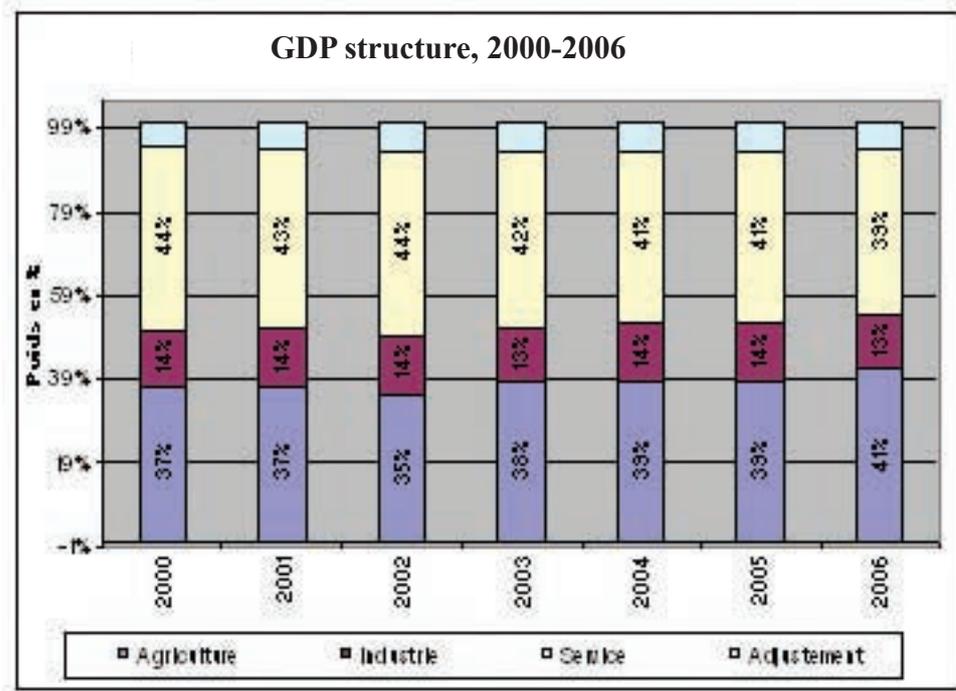
Four tables on the Gross Domestic Product (GDP) are presented in this chapter.

- ⊙ Table n°1.2 presents the GDP by activity at current prices.
- ⊙ Table n°1.3 presents the GDP by activity at constant prices.
- ⊙ Table n°1.4 presents the GDP by expenditure category at current and constant prices.
- ⊙ Finally, table n°1.5 presents the GDP according to the mode of production.

The estimates at constant prices use the prices of the more recent year, 2001.

#### 1.1. Gross Domestic Product at current prices

The Gross Domestic Product of 2006 is estimated to be 1,583 billions Rwf for a population of about 9.0 million, that is a GDP per capita of 175,000 rwandan francs or USD 314 at the nominal exchange rate of 558 Rwf for 1 US\$. From 2000 to 2006, the structure of the economy did not have a significant change. The agriculture sector still dominates, representing 41% of the GDP against 39% in 2005. During the same year, the industrial and service sectors represented 13% and 40% respectively. The adjustments (mainly the taxes on the products) represent 6% of the GDP, that is one percentage point less than in 2005.



## 1.2. Growth rate

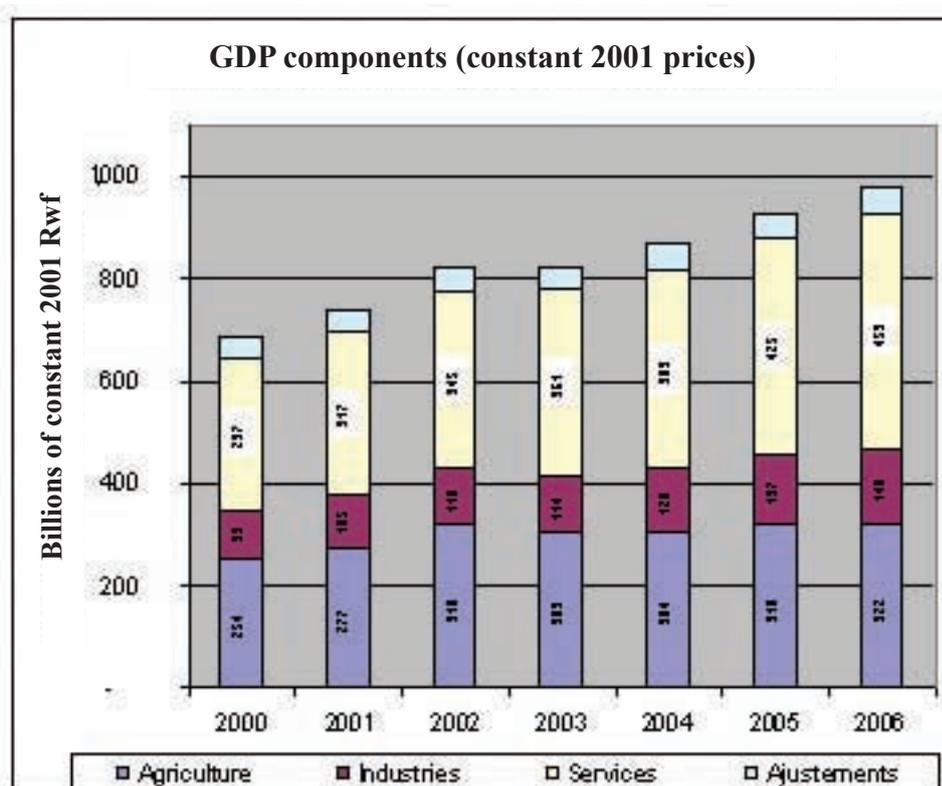
The GDP at constant 2001 prices has been rising steadily, 5% in 2006, 5.3% and 7.1% in 2004 and 2005 respectively. Agricultural production stabilized, with a minimal growth rate of 1%, compared to a growth of 5% in 2005. During the year 2006, the industry and the services showed a rise of 8% each. The diagram below shows the evolution of the GDP and its components for the period 2000 - 2006, at constant 2001 prices.

In 2006, the real value added for the food crops remained unchanged in comparison with the previous year, mainly due to a generalized fall of the production of cereals (-11.1%) and tubers (-6.2%).

The production of export crops grew by 30%, after having undergone a fall of 24% in 2005. In the industrial sector, the rise of the real value added is essentially attributable to the strong growth recorded by chemicals, rubber and plastic (44%) and furniture (47%). Elsewhere, mines and quarrying registered a decrease of 14%, because of the drop of cassitérite and colombo-tentalite production.

For the service sector, the rise of the value added increased substantially in the financial sector (20%) and the public sector (11%). Other sectors such as education, real estate, trade, hotels and restaurants as well as transportation and communications also exhibited a rise of at least 6%.

During the last 5 years, the average annual GDP growth rate was 6%. During the same period, the annual average growth rate is 3% for agriculture, 7% for industry and 8% for services.



### 1.3. Implied deflators.

Since 2003, the implied GDP deflators (obtained by dividing the GDP at current prices by the GDP at constant prices) underwent a consistent increase. They had recorded an annual growth of 21.9% in 2003, 8.9% to 13.2% from 2004 so that in 2006, they were 61.3% higher than the base year, 2001. The rise of the GDP deflators is the consequence of the upsurge increase in prices for the agricultural products. Indeed, the deflators for the agricultural sector doubled as compared to the base year. Following a fall of 12.9% in 2002, they had an annual growth higher than 20% in 2003 (38.9%), 2004 (20.1%) and 2006 (25.6%) and a growth slightly greater than 10% in 2005. In 2006, the deflators of industries and services were respectively 42.4% and 35.3% higher than in 2001, the base year.

### 1.4. Expenditure on GDP

The investments (gross capital formation) comprise constructions and equipment goods (durable goods). They are estimated to represent 15% of GDP in 2006; they represented 14% to 16% during the last five years. The main component of the investments is the construction that represented 10% to 11% of the GDP since 1999. Since the year 1999, the private sector has sustained its role as the prime mover of the economy having 81% to 82% of the total consumption expenditure in the country, the final expenditure by government represented 18% to 19%.

### 1.5. Mode of production.

The monetized informal and the non monetary sector contribute most of the production. In 2006, they represented respectively 34% and 31% of

the GDP; the formal sector representing only 23% of the GDP, while the government (including the NPISH) contributing to only 11%.

### Annexe I : Tableau 1.1 – 1.5.

Table 1.1: Macro-economic Aggregates

Table 1.2: Gross Domestic Product by Activity, current prices

Table 1.3: Gross Domestic Product by Activity, constant 2001 prices

Table 1.4: Expenditure on GDP

Table 1.5: GDP by Mode de Production, current prices.

## 2. AGRICULTURE DEVELOPMENT

The year 2006 has been characterized by strong seasonal disruptions and bad climatic conditions which resulted in a decline of the agricultural production in general.

In comparison to the year 2005, cereals production dropped significantly (11%). The production of sorghum registered a fall in volume of 18% followed by wheat of which the volume of production also dropped by 14%.

In terms of volume, roots and tubers produced in 2006 have globally declined, particularly the irish potatoes (14%). Also, the production of sweet potatoes has decreased by 12%.

Even though production dropped in general, the volume of legumes soared produced in 2006 had a strong growth. The production of green peas recorded a high growth of 75% in 2006. However, in the same category of legumes, the quantity of peanut produced plunged by 58% in 2006.

The production of bananas seems to be constant over time, it increased by 5.2% in 2005 and 5% in 2006.

The production of vegetables and fruits registered a decrease of 8% in 2006 since the climatic conditions were not favorable during this period.

With regard to livestock, the year 2006 has been characterized by a slight drop of the number of cattle and rabbits. The number of cattle and rabbits decreased respectively by 0.7% and 0.2%.

For the rest of the livestock, the number of sheep, goats and poultries increased during the period. The number of goats went from 1,263,962 heads in 2005 to 1,329,632 heads in 2006, meaning an increase of 5.2%. The number of poultries and sheep recorded a minimal increase of respectively 0.4% and 0.6% between 2005 and 2006.

In general, the year 2006 was not favorable for the agricultural producers, if compared with the previous years. However the crop forecasts of the year 2007 foresee a better situation.

*Table 2-1: Comparison of 2006 production and 2007 crop forecasts*

Crop	Production		Change
	2006	2007	07/06
Sorghum	187,380	166,769	-11%
Maize	91,813	102,447	12%
Wheat	19,548	24,633	26%
Rice	62,932	61,701	-2%
Beans	283,387	331,107	17%
Peas	14,199	19,656	38%
Peanuts	9,021	9,899	10%
Soybean	27,137	44,165	63%
Bananas	2,653,548	2,698,176	2%
Irish potatoes	1,136,489	967,283	-15%
Sweet potatoes	777,033	845,133	9%
Yam	125,387	151,513	21%
Cassava	742,525	776,943	5%
Vegetables	518,539	534,428	3%
Legumes&Fruits	339,472	369,005	9%

Source : MINAGRI

Though the crop forecast for rice and sorghum signals a respective decrease of 2% and 11%, wheat production that was 19,548 tons in 2006 could reach 24,633 tons in 2007. The estimated production of maize will increase by 12%, from 91,813 tons to 102,447 tons.

The projected production of roots and tubers in the year 2007 will tend to increase if compared to 2006 except for the potatoes for which the production will decrease by 15%. Still in 2007, the volume of vegetables, bananas, legumes and fruits will increase by 32%, 2%, 9%, and 3% respectively.

#### **Annex II : Table 2.1 – 2.8.**

Table 2.1: Area cultivated (in hectare)

Table 2.2: Agriculture Production, all seasons (in ton)

Table 2.3: Agriculture Production, season A (in ton)

Table 2.4: Agriculture Production, season B (in ton)

Table 2.5: Number of cattle, (Heads)

Table 2.6: Coffee Production (ton)

Table 2.7: Tea Production

Table 2.8: Comparison of Production in 2006 and 2007

## 3. INDUSTRIES

### 3.1. Production

#### 3.1.1. *The mining sector*

From the year 2005, mining production recorded a slight rise of 1.8% in 2006. The productions of cassitérite and Colombo tantalite registered considerable counter-performances with a respective drop of 15.4% and 31.8%. On the other hand the volume of the Wolfram produced in 2006 more than doubled (157.7%), in comparison to the previous year.

#### 3.1.2. Food processing Industries

During the year 2006, food processing industries performed relatively well. Considerable performances have been recorded in the production of alcoholic and non alcoholic drinks, with an increase of 27.4%; this was a result, on one hand, of the introduction of two new products and, on the other hand, the improvement of their commercial policies. Modern beer production grew by 29.9% whereas soft drinks increased by 22.7% in 2006. The production of banana beer increased by 4.4% following a period of decline, while the production of sorghum beer continues to drop with a fall of 8.5%.

The production of tobacco decreased by 8.0% following the privatization and relocation abroad, in mid 2006, of the only cigarettes factory.

After two years of very good performances, the production of sugar suddenly declined by 1.1% in 2006, while the bakery kept its good position with a rise of 8.0% of its production.

In 2006, the production of milk remained relatively stagnant with a slight decrease of 0.1%. The volumes of rice and animal feed underwent a respective increase of 1.2% and 8.0% in relation to the previous year.

Juices and flour productions continued growing, with the introduction of the processing enterprises of fruits and grains. The volume of juices produced locally amounted to 321.2 milliliters in 2004, went up to 1,048 and 1,216 milliliters respectively in 2005 and 2006. Also, flours recorded a remarkable rise. After having tripled in 2005, the increase is estimated at 6.9% in 2006. Following a good sensitization of the population by OCIR CAFE which provided extension agents, pesticides and fertilizers, the production of coffee was able to recover and increased notably by 43.5% in 2006 after a fall of 35.3% in 2005.

The construction of washing stations improved the quality of the Rwandan coffee; 45 in 2005, their number reached 84 in 2006. Thus, the production of high-quality coffee (Fully washed) increased, going from 1,100 tons in 2005 to 1,846 tons in 2006, meaning an annual increase of 67.8%. Tea production rose by 3.1% in 2006.

### ***3.1.3. Chemical Industries***

Production of soap continues to decrease over time, because of the intense competition due to the COMESA products that entered the Rwandan market. It dropped by 13.1% in 2006, after a fall of 11.0% and 15.5% respectively in 2005 and 2004.

Production of paints recorded a high growth of 68.5% in 2006 in relation to 2005 after two years of decline.

The production of pyrethrum performed well during the last two years, from 20 tons in 2005 to 30 tons in 2006, recording an increase of 53.7%. This performance has been reached with the improvement of electricity supply since 2005, among other.

### ***3.1.4. Textile***

The production of textile decreased for years. It marked again a decrease of 6.5% and 4.5% respectively in 2005 and 2006.

### ***3.1.5. Hides and Skins.***

The good performances of this sector persist for some time, supported by the introduction of the processing units of hides and skins for export. The hides and skin production has continuously increased with a growth of 12.4% in 2006, after a rise of 46% in 2005.

### ***3.1.6. Construction materials***

The production of cement rose slightly by 1.4% in 2006 after a respective drop of 0.8% and 3.0% in 2004 and 2005. The other construction materials grew for some years. The production of PVC pipes increased by 7.1% in 2006 in relation to the previous year. The productions of metal roofing sheets and nails increased respectively by 13.5% and 35.5% in 2006, by 11% and 73.7% respectively in 2005.

### ***3.1.7. Water, Electricity and gas.***

The year 2004 was very hard for the energy and water sectors. The production of electricity decreased by 22.7%. The government's efforts to solve this crisis appeared very efficient. The use of power generators increased the production of electricity over the last two years, with a rise of 27.5% and 45.4% respectively in 2005 and 2006. However, energy became expensive due to high production costs. Indeed, 77.5% of the national production in 2006 is provided by the power generators, but still, the national demand is not yet satisfied. The production of water decreased slightly by 0.8% in 2006 compared to the level of the year 2005.

The departments of electricity and water production recorded enormous losses, some may be imputed necessarily to the technical aspects related to the

transportation of energy or water to a long distance by old distribution infrastructures (pipes and cables that are to large extent very old), and sometimes by thefts. The introduction of cash powers decreased the losses of electricity that were estimated to be 33.4% of the total production in the years 1997 to 2000, 24.8% between 2001 and 2005 and 21.9% in 2006. Until now, only 65% of customers use the cash powers and often the big clients don't.

In 1997, water losses represented 60.4% of the total production, the average of the years 1998 to 2003 reached 47.5%. The losses are in decrease and represent only 33.1%, 30.9% and 31.7% respectively in 2004, 2005 and 2006, thanks to the good commercial policies and management applied by ELECTROGAZ management.

However, ELECTROGAZ management, supported by the government, tries to minimize the electricity and water losses. To support these efforts, two projects financed by the African Development Bank (ADB) and the World Bank (WB) to investigate old infrastructures (pipes and cables) to be replaced are in progress.

### **3.2. Producer Price Index in the manufacturing sector (PPI-M)**

The PPI-M is published every quarter by the National Institute of Statistics of Rwanda (NISR). The PPI-M is a joint project between the NISR and the NBR. The PPI-M is calculated to measure the monthly changes in effective ex-factory sell prices by industry. The valuation is at basic prices, excluding therefore all taxes on products (VAT and excise taxes) but including all subsidies. The PPI-M reflects the price movement of a fixed sample basket of well specified goods, representative of the production of different manufacturing industries. The sample comprises establishments operating in Kigali City as well as those located in other provinces. The base period of the PPI-M is the fourth quarter 2003. The official publication of the PPI-M is effective from the 1st quarter 2004.

To reflect the reality of the price movement in the manufacturing sector, it was decided to calculate two types of indices, one for products destined to the local market and another for the export products. The dichotomy of the PPI-M permits to highlight the exogenous factors that influence the price variation within the national economy. We signal that the indices cover manufacturing activities specified in class D and that the PPI is a project to cover other activities according to the ISIC Rev.3 (Of the United Nations).

#### ***3.2.1. PPI-M: Products destined to local market***

In 2006, the PPI-M for local market stood, on annual average, at 121.4, from 117.1 in 2005 and 107.4 in 2004. The rise of 3.6% in 2006 followed an increase of 9.1% between 2004 and 2005.

The sample manufacturing industries are classified in two major groups: the "Production of food, beverages and tobacco" which represents 45.6% of the weight and the "Production of others than food, beverages and tobacco" with

a weight of 54.4%. The “Production of food, beverages and tobacco” recorded a rise of 3.0% in 2006. This growth is due to the subgroup of Food Production for which the index underwent an increase of 9.8%. Among other components of this subgroup that experienced a growth are “Production, transformation and conservation of meat and meat products” (+16.4%), “Transformation and conservation of fruits and vegetables” (+11.7%), “Manufacture of dairy products” (+11.0%), “Work of grains and manufacture of animal feed” (+7.2%) and “Manufacture of sugar” (+12.0%). However, the index for the subgroup “Manufacture of beverages and tobacco products” decreased by 0.3%.

For the group “Production of other than food, beverages and tobacco”, nearly all its components increased in 2006, the “Manufacture of chemicals” recording a slight decline of 0.4%, thanks to the reduction of taxes on raw materials. The PPI-M increased for the subgroups: “Manufacture of papers and articles in paper, edition and printing” (+3.1%), “Manufacture of rubber and plastic products” (+5.4%), “Manufacture of other non metallic mineral products” (+7.9%), “Manufacture of fabricated metal products” (+9.8%) and “Manufacture of furniture” (+3.0%).

In 2007, the index for the PPI-M for the 1st semester showed an upward trend. This index rose to 126.4 during the 1st semester 2007, with an increase of 3.2% from its level in the 2nd semester 2006 (122.4) and 5.0% in comparison with the corresponding period in 2006 (120.3).

### **3.2.2. PPI-M : Export Products**

The PPI-M for export products is dominated mainly by the production of coffee and tea. The PPI-M was 150.4 in 2006, 136.5 in 2005 and 121.6 in 2004, which means a rise of 20.7% and 10.2% respectively in 2005 and 2006. The rise of 10.2% in 2006 comes from the production of Tea (+22.7%) and Coffee (+1.2%). Elsewhere, the PPI-M for the export products was 142.9 during the 1st semester 2007, i.e. a decrease of 6.3% in comparison to its level during the 1st semester 2006 (148.3). The change in prices for coffee and tea is caused by the change of the prices on the international market.

### **Annex III : Graphs and Tables 3.1-3. 30**

Table 3.1: Production of the main industrial goods

Table 3.2 – 3.10: Electricity, water and gas

Table 3.11: Price and production of cement

Table 3.12 – 3.13: Beer and Soft drink Production (in hl)

Table 3.14: Soap Production (in tons)

Table 3.15: Production of textile

Table 3.16: Juice Production (in 000 liters)

Table 3.17: Flour Production (in tons)

Table 3.18: Production of export crops (in tons)

Table 3.19-3.30 : PPI-M, 2004 - 200

## **4. SERVICES**

### **4.1. Tourism**

#### *4.1.1 Overall view of Tourism growth as projected in 2010*

According to the World Tourism Organization (UNWTO), international tourist arrivals in the East Africa sub region will grow at 5.5% per annum over the period 1995 to 2010, making the region the second fastest growing tourism region in Africa after Southern Africa. Furthermore, projected international tourist arrivals will amount to 10.5 MM in 2010 from 6.3 MM in 2000. The top three tourism generating regions for East Africa will be: East Africa (29% of arrivals), Western Europe (16%) and Southern Africa (16%); North America will only be the sixth region with 6% of arrivals

#### *4.1.2 Overall world tourism performance in 2006*

The overall results demonstrate clearly that despite all the down risks facing global tourism at the start of 2006-in particular terrorism, health scares due to avian flue and rising oil prices- tourism, backed up by one of the longest period of sustained economic expansion, registered long-term forecast rate of 4.1 %, from 806 million in 2005 to 842 million in 2006.

Africa was again the star performer in 2006, maintaining its annual growth in tourists' arrivals at 8% with sub-Saharan Africa being the major contributor to this rise.

Asia and Pacific maintained its previous year growth level-due to in no small part to the recovery of Thailand and tsunami, as excellent performances from other emerging destination in the pace of growth of arrivals to some destinations in the region, which compensated for a slight slowdown in the pace of growth of arrivals to some destinations such as China, Taiwan or the Republic of Korea.

While some destinations suffered to the benefit of others in the region, Europe comfortably achieved its target last year (+4).

In the Middle East, international tourist arrivals are estimated to have risen by 4% in 2006, in spite of the overall geographical situation, and of the Israel-Lebanon crisis in particular.

Many destinations report fine results, the weakest region being the American, whose 2% estimated growth was well below targeted due mainly to the stagnation in arrivals for North America and despite very healthy performances from much of central and South America, as well as reasonable results for the Caribbean. Source: World Tourism Organisation (UNWTO)

#### *4.1.3 Rwanda Tourism Strategy*

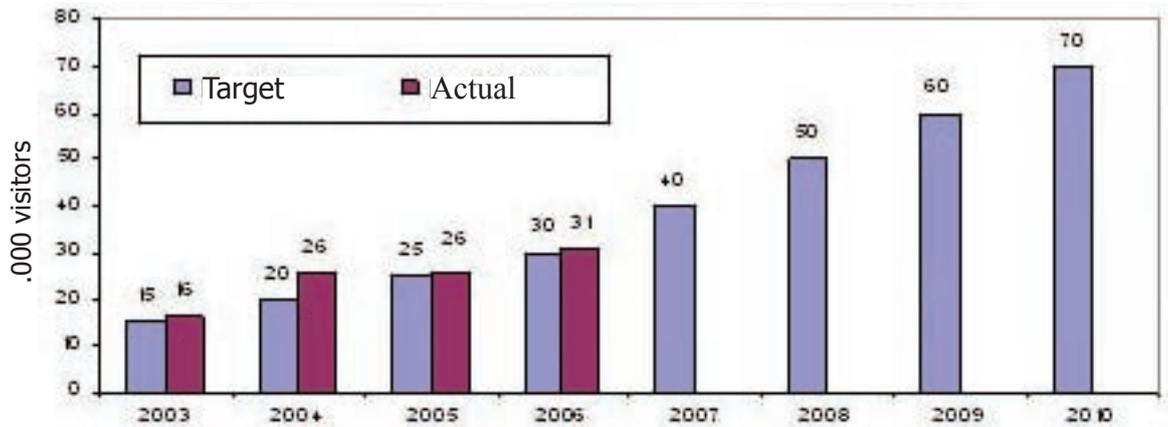
The mission of the National Tourism and National Parks Office (ORTPN)'s is to preserve the rich biodiversity of Rwanda protected areas, and promote tourism

in collaboration with all stakeholders for the benefit of all Rwandan people. In 2002, the Rwanda Tourism Strategy portrayed the goal of generating \$100MM in tourism receipts and 70,000 visitors by 2010.

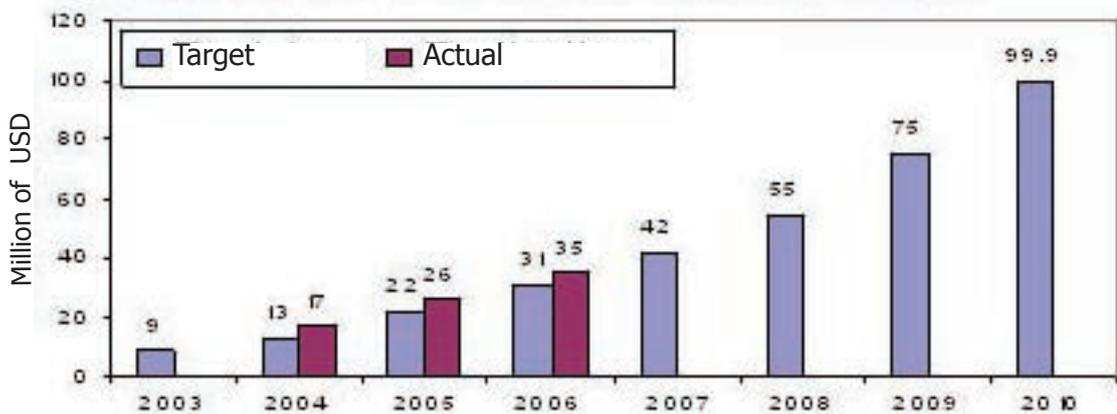
Targets set include length of stay of 7 days, spending \$ 200 per day. Based on these goals the targets for 2006 were set at \$31 MM tourism receipts and 30 000 visitors each staying 5 days and spending a minimum of \$200 per day.

#### 4.1.4 Estimated Tourism Volumes and Receipts

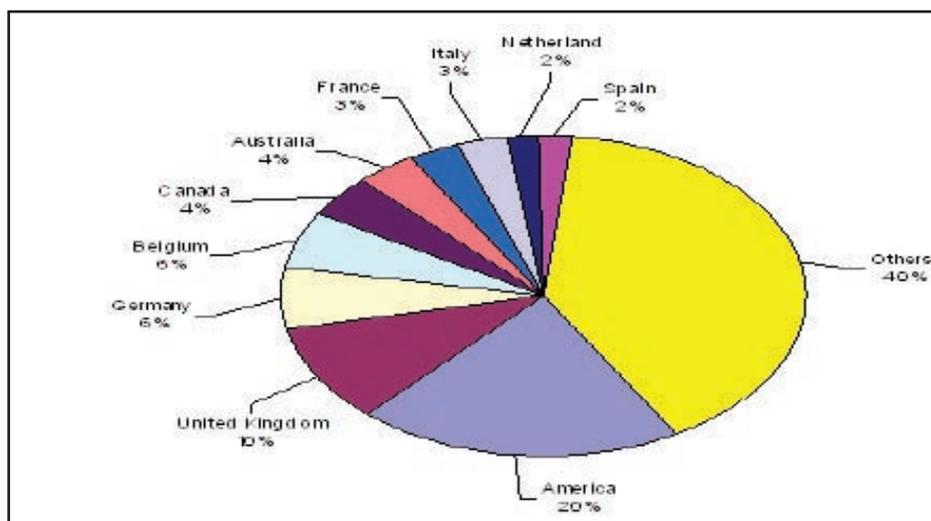
**Graph 4-1: Rwanda projected tourism Portfolio**



**Graph 4-2: Estimated Tourism Receipts, million USD**



**Graph 4-3: Ten leading nationalities that visited Rwanda in 2006**



These estimates are based on interviews with some hotels and some major tour operators. Though these estimates do not provide an accurate picture of the whole tourism industry, they do provide an indication of the trends.

#### **4.1.5 National Parks**

Overall, visitors to all national parks continued a sustained upward trend, with overall number of visitors in 2006 increasing by more than 27% over the 2005 figures.

This growth is fuelled by non-residents visitors who constituted just over three fifths of the total park visitors (61.3%), while local visitors and residents were 29.8% and 8.8% respectively. This growth curve is expected to continue into the future as Rwanda gains international acceptance as tourist destination.

### **4.2 Land Transport**

#### **4.2.1. Passenger Transport by Road**

In 2006, the number of passengers boarding the buses of the National Public Transport Authority (ONATRACOM), grew by 23% from 2005. The number of buses more than doubled during the last quarter of the year 2006, growing from 62 to 126 buses.



The same is true on the number of passengers in the urban network from 467,346 in 2005 to 1,200,750 in 2006. However the number of buses remained insufficient if compared to the needs of the constantly growing urban population; ONATRACOM having allocated only twenty two buses permanently to the urban transport (City of Kigali)..

Passengers in the inter city network recorded an increase of 16.6% if compared with the year 2005. The increase of the number of buses in 2006 led to the fulfillment of one of ONATRACOM's main missions, which is to connect all districts of the country while facilitating the transportation of people to their community.

In this perspective, the transport network to rural areas which only counted close to 88 routes in 2005, has been extended to more than 180 routes throughout the country at the end of 2006, which means an extension of more than 64%.

Since 2003, ONATRACOM also exploits an international transportation network, linking regularly by bus, the capital of Rwanda (Kigali) and Kampala (Uganda); this network has been extended from the last quarter of the year 2006 by linking Kigali to Bujumbura (Burundi).



The number of passengers having used the ONATRACOM international network during the year 2006 increased by 11%, relative to the year 2005. Receipts generated by ONATRACOM recorded a growth of about 23% in 2006.

ONATRACOM is also the organization authorized to issue certificates after technical inspection of buses and minibuses, owned by individuals or companies and assigned to public transportation within the Rwandan territory. The certificate is valid for a period of six months, after which the concerned vehicle must undergo another technical inspection. During the years 2005 and 2006 the number of buses and minibuses having been inspected rose on 3,972 to 4,139 respectively, with an increase of 4.2% in 2006.

#### 4.2.2 Vehicle by type

Vehicles in circulation in Rwanda are composed of locally registered and foreign registered vehicles. The available data concerns those that are registered in Rwanda and this is done by the Rwanda Revenue Authority. All vehicles are imported since there is no manufacturing or assembling plant of vehicles in Rwanda currently.

They are composed of Buses, Cars, Jeeps, Microbuses, Minibuses, Motorcycles, Pick-ups, Semi-trailers, Special engine vehicles, Trailers and Trucks as shown in the table below:

*Table 4-1: Distribution of registered vehicles by type*

VEHICLE DESCRIPTION	2003	2004	2005	2006	Jan-Sept 2007	TOTAL	DESCRIPTION DU VEHICULE
BUS	45	19	9	20	13	<b>106</b>	BUS
TRUCK	1,054	258	188	206	77	<b>1,783</b>	CAMION
PICK-UP	4,560	1,119	1,123	1,064	872	<b>8,738</b>	CAMONNETTE
SPECIAL ENGINE	36	15	25	17	4	<b>97</b>	ENGIN SPECIAL
JEEP	3,170	989	1,566	823	627	<b>7,175</b>	JEEP
MICROBUS	56	7	3	3	8	<b>77</b>	MICROBUS
MINIBUS	2,404	449	412	331	148	<b>3,744</b>	MINIBUS
MOTOCYCLE	2,798	3,570	4,833	4,130	3,039	<b>18,370</b>	MOTO
TRAILER	277	39	45	80	21	<b>462</b>	REMORQUE
SEMI-TRAILER	52	10	8	13	3	<b>86</b>	SEMI-REMORQUE
CAR	7,571	1,171	1,201	990	1,336	<b>12,269</b>	VOITURE
<b>TOTAL</b>	<b>22,023</b>	<b>7,646</b>	<b>9,413</b>	<b>7,677</b>	<b>6,148</b>	<b>52,907</b>	<b>TOTAL</b>

Data Source: Rwanda Revenue Authority

These data were captured starting with the year 2003 when an information system was put in place. The data relating to the vehicles that were registered before 2003 can only be obtained from hard copy files.

The figures show that motorcycles make up the largest number, followed by cars, pick-ups, jeeps, minibuses, trucks, trailers, buses, special engine vehicles, semi-trailers and microbuses in that order.

This can be attributed to the nature of these vehicles since some of them carry only one passenger at a time, some are for leisure purposes while others are commercial. The purpose for which the vehicles are purchased greatly influences the number in that category.

Looking at 2003 data, it should be noted that there was an practice of changing numbering plates commencing in 2003 hence all the vehicles that were initially registered before the year 2003 apart from those that are not in circulation, were re-registered.

The exercise of re-registration of vehicles was done in order to clearly identify the vehicles in circulation since the details and status concerning the vehicles was disorganized and not up to date. Of the 22,023 vehicles registered in 2003, 18,281 were being re-registered.

The exercises of registration and re-registration run concurrently but most of the vehicles were re-registered in 2003. Only 1,904 and 304 were re-registered in 2004 and 2005 respectively. The details are in the table that follows:

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Jan-Sept 2007</b>	<b>TOTAL</b>	
Re-registered vehicles	18,281	1,904	304			20,489	Reregistered vehicles
Registered vehicles	3,742	5,742	9,109	7,677	6,148	32,418	Reregistered vehicles
<b>TOTAL</b>	<b>22,023</b>	<b>7,646</b>	<b>9,413</b>	<b>7,677</b>	<b>6,148</b>	<b>52,907</b>	<b>Total</b>

Data Source: Rwanda Revenue Authority

There was however a decrease in 2006; and this is attributed to the decrease in importation of the main types of vehicles, i.e. motorcycles, cars, pick-ups, jeeps and minibuses decreased following the ban on the importation (or registration for that matter) of Right Hand Drive vehicles in Rwanda.

The ban was brought into effect by the Presidential order no. 40/01 of the 16/10/2005 modifying and complementing Presidential decree no. 85/01 of the 02nd/09/2002 regulating general traffic police and road traffic.

This change caused people to opt for first trying to find vehicles from within the local market (i.e. vehicles just changing hands) before thinking of importing one since most of the imports commonly from Right Hand Drive vehicles. This behavior was evidenced by the price of vehicles changing hands increasing sharply in 2006. It should be noted that Left Hand Drive vehicles are generally more expensive than Right Hand Drive vehicles.

### **4.3 Air Transport**

#### **4.3.1 Domestic Air Transport**

Domestic air transport passengers have almost tripled from 1,371 to 4,029 in years 2005 and 2006 respectively. This has been a result of the increase in the number of flights by the national carrier (Rwandair Express) which flies thrice a week to and from Kamembe.

Concerning aircraft movements, over the last five years Kamembe International airport has had a fluctuating number of air crafts movement with the highest being 2,124 in 2002. In 2006 the number of aircrafts arriving and departing the airport went as far as 89.0% increase, while Gisenyi aerodrome

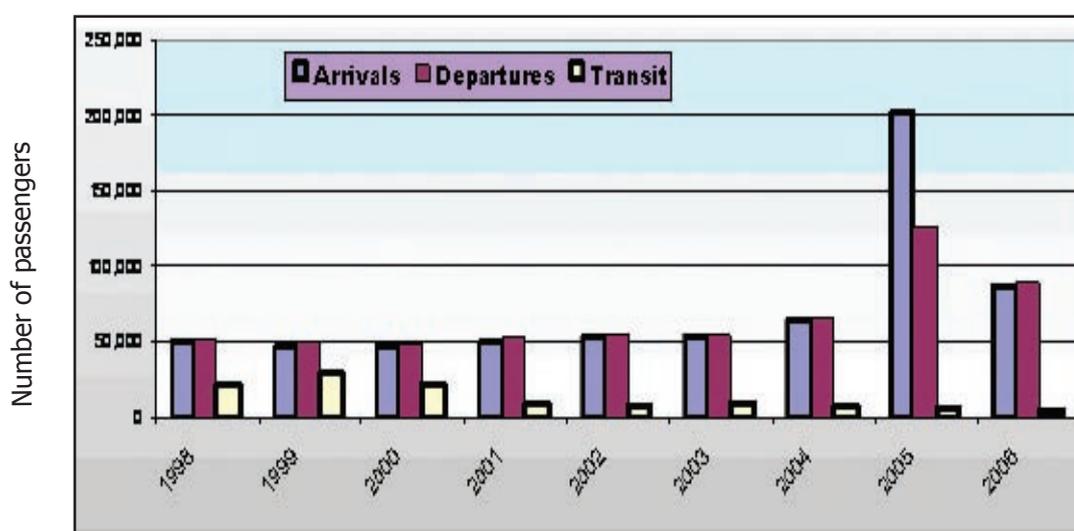
saw a decreasing number of aircraft movements for the last five years. However, there are hopes that the number will rise again due to plans by Rwandair Express, the local carrier, to open up a scheduled service.

### 4.3.2 International Air Traffic

The number of International Aircrafts movement has not been stable for the last five years with the highest being 10,141 recorded in 2002. From that period, the number went on decreasing to the extent that by 2006 it was 6,052. The reason for the decrease is due to pulling out of some international airlines.

Total International passenger movements embarking, disembarking and transit have registered an increasing trend over the last five years. The figures recorded in 2005 showed an extraordinary increase spurred by international conferences taking place in the country by that time.

**Graph 4-4: Passenger movements at Kigali International Airport 1999 - 2006.**



## 4.4. Insurance Industry

### 4.4.1 Introduction

An effectively functioning financial sector is a fundamentally important and essential element for achieving Rwanda's Vision 2020 which seeks to transform Rwanda into a middle-income country and an economic trade and communication hub by the year 2020.

Enormous developments have taken place in Rwanda's insurance industry during the previous three years. National Insurance Commission was established in 2002 with the mandate to control and regulate the insurance sector, until 2006 when it was dissolved and its powers transferred to the Central Bank.

The Central Bank Act has been amended to enable National Bank of Rwanda (NBR) develop a consolidated regulation and supervision function for Non Banking Financial Institutions (NBFI), including Rwanda Social Security Fund (CSR) and other pension funds, the insurance industry, and, if established,

leasing and finance companies. Amongst the Central Bank's responsibility is to provide efficient, effective and transparent regulatory services to all stakeholders in the insurance sector. Insurance data come from the Central Bank.

#### 4.4.2 Composition of Insurance Sector.

Rwanda's insurance industry is composed of five insurance companies and six insurance brokers, namely;

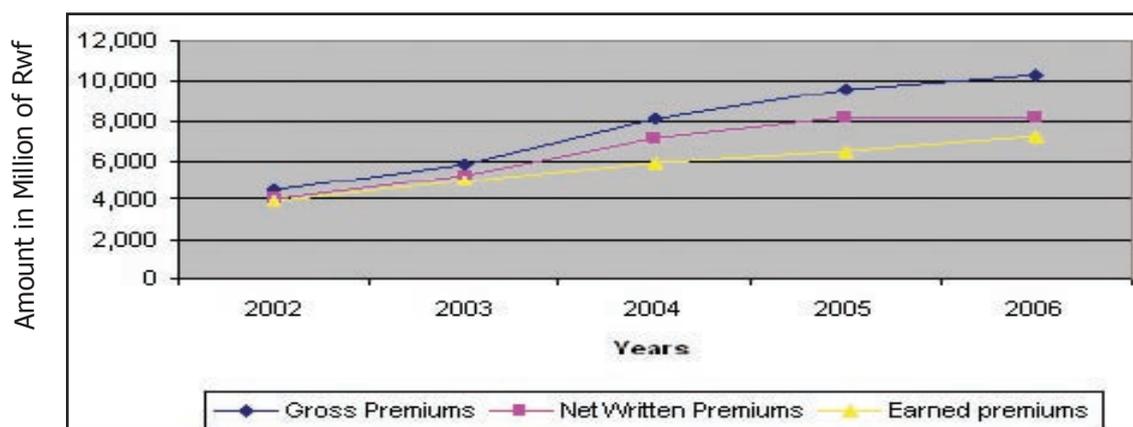
1. SONARWA (Société Nouvelle d'Assurances du Rwanda) established in 1975 ;
2. SORAS (Société Rwandaise d'Assurances) established in 1984,
3. COGEAR (Compagnie Générale d'Assurances et de Réassurances au Rwanda) established in 1995,
4. CORAR (Compagnie Rwandaise d'Assurances et de Réassurance) established in 2001, and
5. Phoenix of Rwanda Assurance Company S.A the youngest, established in 2006.

The six insurance brokers are; Alliance Insurance Brokers (AIB), Optimum Insurance Brokers, SORCOPRA Insurance Brokers, Reliance Insurance Brokers, Africa Risk Insurance Brokers and Utmost Insurance Brokers. All established in year 2006. Their major role is to act as intermediaries between insured and insurers, among others. The four insurance companies (SoNARWA, SORAS, CORAR and COGEAR) are composite companies; in other wards they transact life and non life business unlike Phoenix Company which transacts non life business only. However, the analysis represents statistics collected from the four above mentioned companies since Phoenix is too young to publish financial statements.

#### 4.4.3 Main highlights of insurance company performance

During the year 2006, the gross premium written by the industry was Rwf 10,332 millions compared to Rwf 9,519 millions in 2005 representing, a sustained growth of 9% following an increase of 18% in 2005.

*Graph 4-5: Evolution of Insurance Companies Premiums*



Statistics show that there was an improvement in settlement of claims for policyholders. Claims paid increased from 2,169 millions to 3,523 millions Rwf in 2005 and 2006 respectively indicating 62% increase as compared to 15% recorded in 2005.

Graph 4-6: Trends of Claims

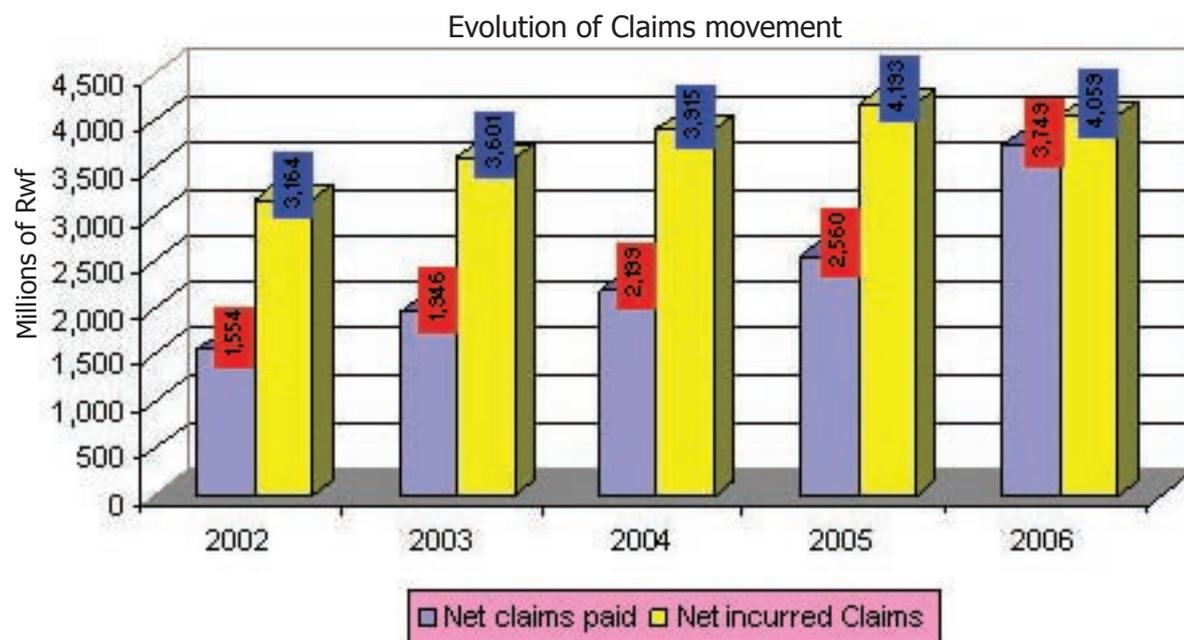


Table 4-3: Consolidated premiums and Claims (million of Rwf)

Yrs Descriptions	2002	2003	2004	2005	2006
Gross premiums	4 534	5 827	8 097	9 519	10 332
Net Premiums	3 986	5 294	7 114	8 165	8 389
Earned Premiums	3 897	4 939	5 872	6 511	7 248
Claims incurred	2 135	2 759	3 145	3 839	4 149
Claims Paid	1 240	1 400	1 885	2 169	3 523

Source: National Bank of Rwanda

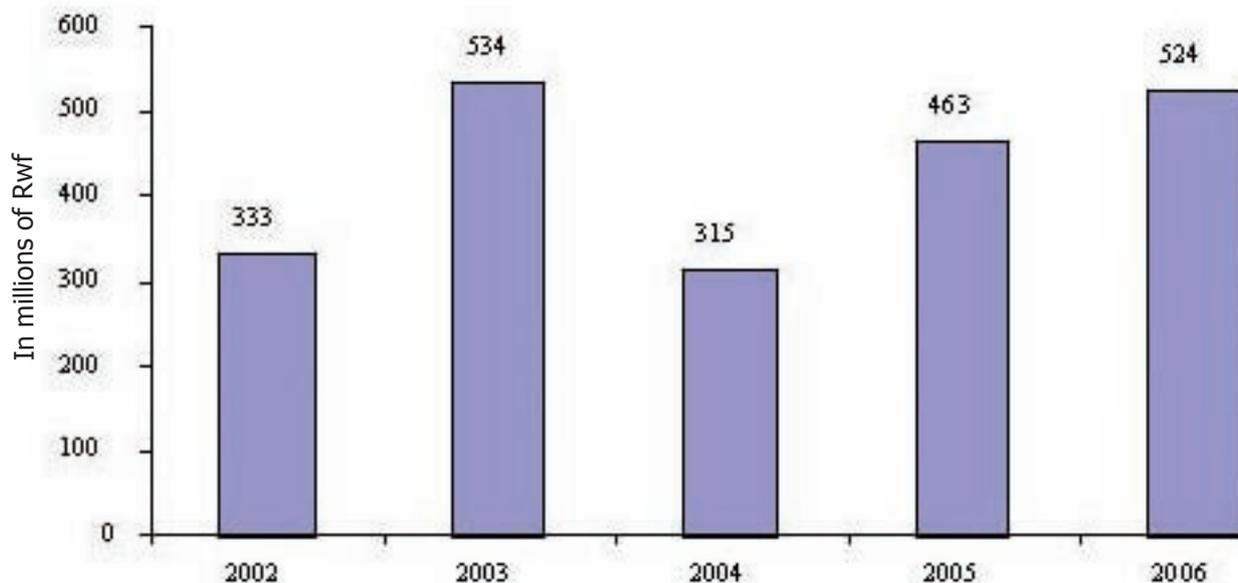
Table 4-4: Capitalization of insurance industry (in million of Rwf)

Yrs Descriptions	2002	2003	2004	2005	2006
Share Capital	1,830	1,830	1,830	1,830	1,830
Total Share holder's fund	2,442	2,977	3,359	3,738	4,675
Total Assets	12,996	10,227	18,663	22,510	25,654

Source: National Bank of Rwanda

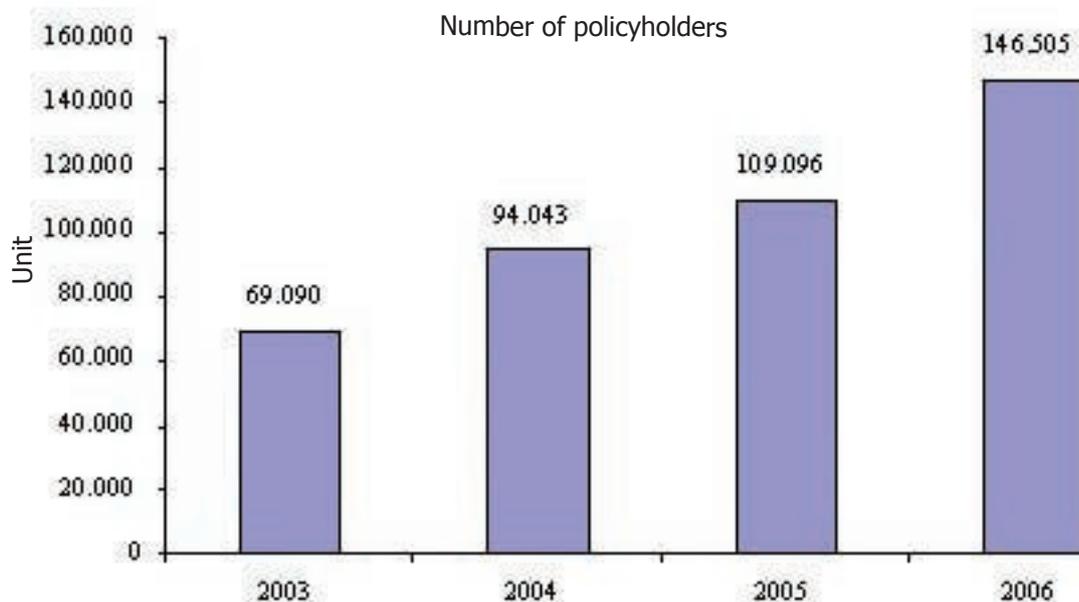
The above information depicts how important the insurance industry is in Rwanda's economy, with total employment of 450 and total assets of 25,654 millions.

*Graph 4-7: Profitability trends*



The profitability movement for insurance industry is an upward trend since 2005, which recorded 21% and 24% increase in 2005 and 2006 respectively as indicated in the above graph.

*Graph 4-8: Evolution of Policyholders*



As shown in the above graph, the number of insured or policyholders is increasing tremendously since 2003. An increase of 36% was recorded in 2006 as compared to 26% in 2005.

## **4.5 Development in ICT Sector**

### *4.5.1. Introduction*

As early as 1998 the Government of Rwanda initiated its ICT blueprint dubbed -"An Integrated Framework for Socio-Economic and ICT Policy and Plan Development and Implementation for Rwanda". After a series of consultative

encounters with stakeholders and the general public this document was fine-tuned and adopted in 2000. ICT was identified as a tool “to transform a subsistence economy into an information-rich, knowledge-based one, and accelerate economic growth.

Nearly all social and economic development indicators reveal that Rwanda is recovering very quickly after the 1994 Genocide. Rwanda is a small landlocked country with no tangible mineral resources to help the acceleration of its development, but it can make use of Rwandans work capacity combined with new technologies and improve the efficiency at which its available resources are used, thereby achieving rapid growth.

ICTs promote growth and development through attracting national and foreign direct investment and global business. Rwanda has implemented NICT Plan I and II (in progress) based on eight major areas that have been identified for strategic action:

1. Human resource development,
2. Infrastructure;
3. E-government,
4. Community access;
5. E-education,
6. Foreign Direct Investment;
7. regulatory and legal issues, and
8. Private sector facilitation.

A major focus of the ICT policy is to develop a critical mass of local producers and consumers of ICT products as a means of fusing it into the core of national economic activities. The policy also seeks to widen access to learning opportunities to a larger segment of society while striking a balance between global competitiveness and locally relevant education and training.

The government is also extending its ICT portfolio in a bid to improve the core functions performed by its agencies and local government decision-making processes through facilitation of information management and sharing. Hence the existence of the Rwanda Information Technology Authority (RITA) as the agency tasked to ensure the implementation of these plans.

Substantial progress has been recorded during the past year in the area of ICT, though imperfect and irregular. Although Rwanda’s ICT sub-sector is embryonic and still accounting for a relatively small share of the economy’s output, there is evidence of rapid growth.

Government’s push for ICT development resulted in the connection of 27 government buildings in Kigali to the fiber optic network backbone. The backbone is currently being expanded to other towns.

#### *4.5.2. Evolution of total resources in ICT sector.*

With its national spending on ICT, Rwanda already stands at the same level as the OECD states, high above the African average. Recently, the country broke fresh ground with regard to e-Government and video conferencing to shorten travel expenses and to improve communication among district authorities.

Another goal to be achieved in the near future is the introduction of new technologies such as Voice over IP and high bandwidth connectivity.

#### 4.5.3 Human Resources



As far as human resources is concerned, the education sector is the key resource for capacity building system to improve ICT Knowledge. More than one thousand students were sent to Bangalore (India) and the Kigali Institute of Science and technology (KIST) was created in 1997 to fill the gap in professional IT Staff.

The National University of Rwanda (Butare) has launched a Master degree program in ICT and the first generation graduated in September 2007. Actually all Higher Learning Institutions namely: KIE, UNILAK, ULK, UAAC, are providing a bachelor degree in Computer Science. Several vocational schools mainly in Kigali are also providing certificates on secretarial studies based on basic IT courses.

*Table 4-5: Indicators of ICT infrastructure development*

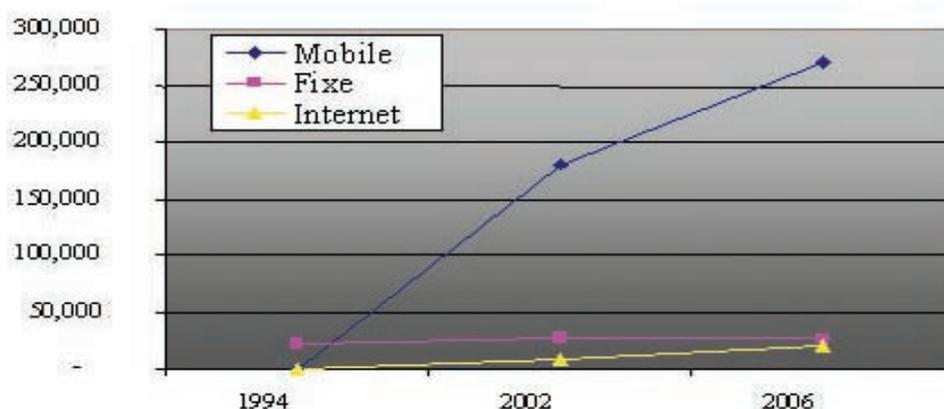
Indicators	2000	2001	2002	2003	2004	2005	2006
Telephone lines	18,000	22,000	30,447	26,541	26,048	26,150	26,805
Population			8,231,000	8,453,237	8,681,474	8,915,874	9,156,603
Teledensity	0.23	0.27	0.37	0.31	0.30	0.29	0.29
Digital main lines (%)	100	100	100	100	100	100	100
Mobile subscribers	39,000	77,389	91,778	129,163	173,879	219,657	267,890
Mobile subscribers per 100 inhabitants	0.5	0.82	1.12	1.53	2.00	2.46	2.93
Mobile subscribers as a % of telephone subscribers	68.9	75.1	75.09	82.95	86.97	89.36	90.90

Source: ITU, RURA & ScanICT survey

Mobile phone penetration has increased since the introduction of a second operator in GPRS technology. Terracom and again Rwandatel have increased its subscriber's number by offering low cost services both in voice and data.

Mobile subscribers as percentage of all telephone subscribers has risen from 68.9% in 2000 to 90.9% in 2006. The mobile phone is becoming more and more the most used communication tool. From 2000 to 2006, the number of mobile subscribers grew by more than 6 times. Both RwandaCell and RwandaTel are developing Internet wireless technology using GPRS and Wi-Max for the first one and CDMA for the second one but their costs are still high regarding the bandwidth proposed.

*Graph 4-9: Subscribers of mobile, fixed and internet*



Source: ITU, RURA & ScanICT survey

#### 4.5.5 ICT usage and penetration

Table 4-6: Estimated level of ICT engagement (2003)

Economic Sector	Sector	Estimated Level of ICT Engagement*				
		Non-ICT	CT Only	Basic ICT	Networked ICT	Intensive ICT
Public Sector	Nat. Government	0%	20%	33%	47%	0%
	Local Government	58%	36%	5%	1%	0%
Private Sector	Large Businesses	39%	44%	10%	5%	2%
	SMEs	16%	58%	15%	10%	1%

Source: on the Frontier survey 2003

- National Government reported the highest levels of ICT Access, but 20% still have achieved the level of CT Only
- Local Government falls into the two lowest categories (94%), driven by lack of access to basic ICT infrastructure.
- Large Businesses are concentrated (83%) in the two lowest levels of ICT engagement.
- SMEs are the most evenly distributed across the spectrum, reflecting the varied conditions under which SMEs operate in Rwanda. However, 74% are classified as Non-ICT or CT-Only, indicating that they have not integrated PCs into their operations.

Table 4-7: Estimated level of computers usage by staff per sector (2006)

Sectors/institutions	Estimated level of computers usage by staff			
	0 - 25%	50%	75%	100%
Public sector	30	11	22	37
Private sector	35	15	23	27
NGOs	9	23	26	42
UN system	14	0	14	71
	Low usage	Medium usage	intensive usage	

Source: ScanICT 2006 (INSR, RITA)

- The UN System reports the highest level of ICT intensive usage with 85%.
- The NGOs sector comes in second position with 68%
- The public sector is performing more than the private sector with an intensive usage rate of 59% versus 50%.

Table 4-8: Estimated level of internet usage by staff per sector (2006)

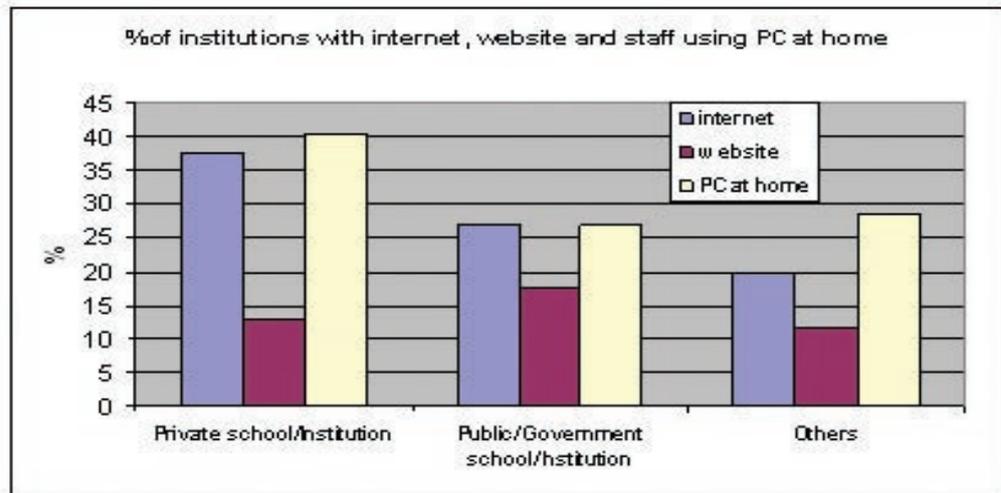
Sectors/institutions	Estimated level of Internet usage by staff			
	0 - 25%	50%	75%	100%
Public sector	69	5	14	12
Private sector	71	6	9	14
NGOs	42	14	19	26
UN system	0	0	0	100
	Low	medium	intensive usage	

Source: ScanICT 2006 (INSR, RITA)

- The UN System reports the highest level of Internet intensive usage with by 100%
- The NGOs come in second position with an intensive internet usage of 45%
- The Public sector is in the third position with 26% and 23% for the private sector with the lowest intensive internet usage.

#### 4.5.6 ICT usage and penetration in Education

**Graph 4-10: Percentage of educational institution with internet, website and Teachers using PC at home (2006)**

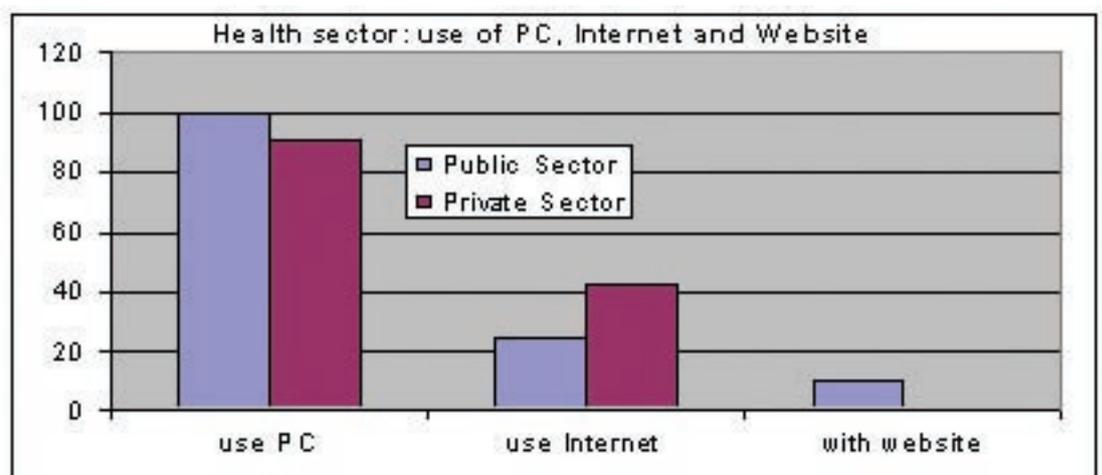


Source: ScanICT 2006 (INSR, RITA)

- It appears that private schools and institutions have a better access to internet with 38% versus 26% to public sector (public schools and institutions).
- Public schools have a better rate of 18% regarding web presence versus 13% for private schools.

#### 4.5.7 ICT usage and penetration in health sector

**Graph 4-11: Percentage of health institutions with PC, internet & website (2006)**

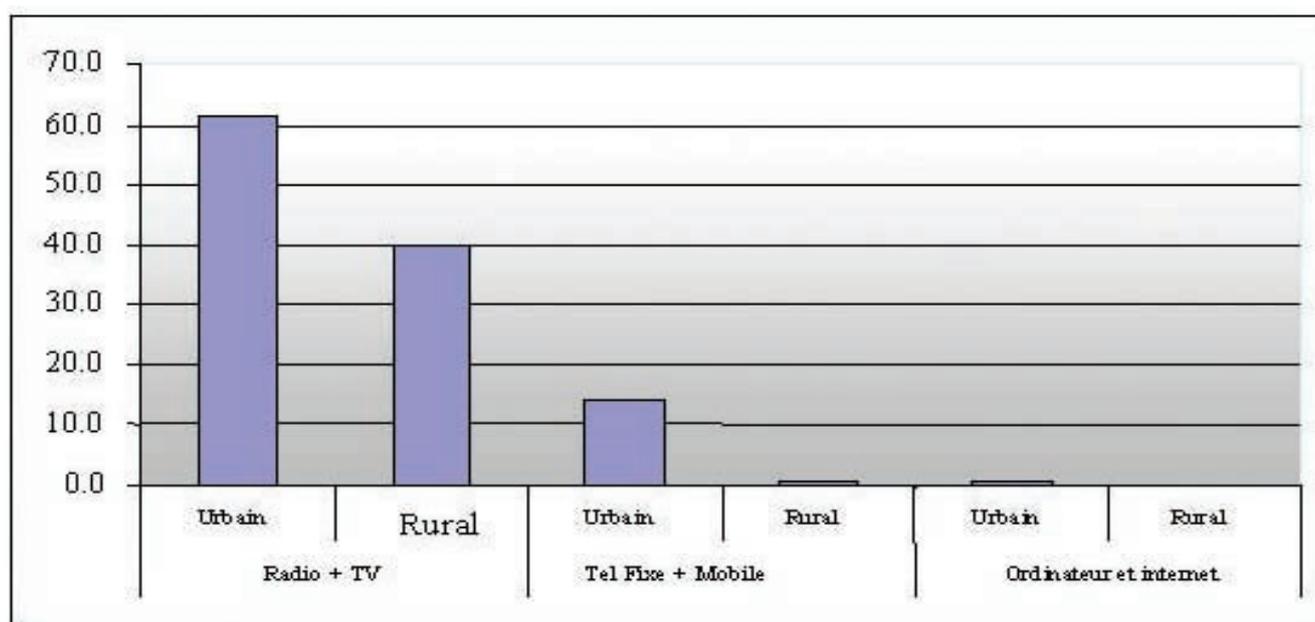


Source: ScanICT 2006 (INSR, RITA)

- It appears that the public institutions in health sector have a better penetration rate of PC with 100% versus 65% to private sector.
- Private sector in Health institutions performs better than public sector regarding health sector internet access with a rate of 42% versus 22% for the public sector.

#### 4.5.8. ICT usage and penetration in Households ( Urban vs Rural)

Table 4-9: Percentage of ICT indicators urban vs Rural (2006)



Source: RGPH 2002, DHS 2005, EICV2 2005

- It appears that the urban rate for ICT indications on Radio, phones and PC is much higher (61%, 14% and 0.8%) than the rural side with respectively 40%, 0.6% and 0, 01%).
- This gap is due basically to access facility like electricity, mobile network coverage with a higher density in urban then in rural

#### Conclusion:

It is standard practice for experts to compare a country's per-capita gross domestic product against its information communication technology (ICT) penetration levels. The richer a country is, the higher its Internet penetration. The Internet-GDP link has become a truism we take for granted but there exist other metrics that must be considered.

Small island economies tend to perform better than their economic numbers would suggest. So, Rwanda, a landlocked country, is doing well through its ICT policy. Rwanda's performance in ICT suggests that countries with weak economic and social conditions could, if the environment is right, enjoy high growth rates. (East African Newspaper, July 2007)

#### **Annex IV: Table 4.1 – 4.9**

Table 4.1-4.2: Land Transport by ONATRACOM

Table 4.1: Transport Statistics by ONATRACOM

Table 4.2: Buses and Minibuses having undergone technical control

Table 4.3 – 4.6 : International and Domestic air transport.

Table 4.3: Air traffic statistics at Kigali International Airport

Table 4.4: Passengers movements

Table 4.5: Freight

Table 4.6: Mail in tones

Table 4.7: Domestic Air Transport Mouvement

Table 4.8: Domestic aircraft movements

Table 4.9: Domestic passenger performance

## 5. INFLATION AND EXCHANGE RATE

### 5.1. Consumer Price Index (CPI)

The Consumer Price Index is calculated and published every month by the National Institute of Statistics of Rwanda. Data are collected in 12 major towns and in the capital city, Kigali. Even though data collection in Kigali is carried out by both the National Bank of Rwanda and the National Institute of Statistics of Rwanda, it is NISR that has the responsibility for calculating the index at the national level. Furthermore, NISR is the only official source for the Consumer Price Index in the country. The base period for the current CPI is the year 2003.

In 2006, the average inflation rate was 8.9%. This high rate of inflation can be explained by the increase in prices for some categories of products. Among these, food products and non alcoholic beverages registered a price increase of 9.92%. This group of products is largely responsible for the high rate of inflation observed in 2006. Indeed, food products and non alcoholic beverages represent 37.09% in the reference basket of goods and services in the country. Vegetables are the main cause of the increase in food prices. With a weight of 13.33% in the CPI-which is over a third of all food products and non alcoholic beverages-the 15.36% increase in vegetable prices largely explains the variation of the food category as well as that of the Consumer Price Index as a whole that year.

In 2006, the price index for local products increased by 11.2% while the index for imported products had an increase of only 2.8%. Again, an important factor in both changes is the food and non alcoholic beverages category. Indeed, the index for local food products increased by 12.7% whereas the same index but for imported food products increased by 2.8%. In addition, local food products represented 37.8% of all locally produced goods and services and the imported food products' weight was 35.5% of the goods and services produced abroad. This fact explains the reason why food products, whether locally produced or imported, had such a great effect on the increase of the index for local products on one hand and on the index for imported products on the other.

For the year 2006, the index for imported products has a steady upward trend between January and May. For the rest of the year, it is almost constant indicating very little price movement. On the other hand, the index for local products underwent a quite dramatic increase during that period. As a matter of fact, at the beginning of the year, that index registered a five percent rise. In terms of monthly changes it even goes down three times that year; by 0.7% in May, by 0.1% in July and by 0.9% in November.

#### 5.1.1. Underlying Inflation: Overview

For purposes of core inflation analysis and monetary policy, among other things, a separate index has been developed. This index-referred to as the core index-removes on one hand the influence of seasonal fluctuations due to variations in the price of certain food products and the index for energy as well.

In 2006, this index underwent an increase of 4.0% whereas the annual change was 5.5% in 2005. In 2004, the average price of energy rose by 28.3%. In 2005, it rose by 34.2% and in 2006 it went up by as much as 30.1%. That is, over a period of 3 years the average price of energy in Rwanda increased by 124%! This is mostly due to the increase in the tariff for electricity and the governmental environmental policy to prevent deforestation which led to the rise in the price for charcoal. During the year 2006, the rate of increase of the index for "Fresh products", that is, food produce the prices of which have seasonal fluctuations was 14.1%. In 2006, the index that helps measure underlying inflation (general index excluding fresh products and energy) showed a steady upward trend. May and October registered the lowest monthly changes of the year: about -0.1%. These rates were markedly different from the rest of the year (0.46% on average). January and September had the largest monthly rates of increase: 1.74% and 1.15%, respectively. The story was somewhat different in 2005. As an illustration, in May 2005, the index registered a strong monthly increase of 1.4% whereas, in June, it fell by 0.5% and by 0.2% in July. These rates were rather extraordinary for that year, for monthly changes averaged only 0.1%.

### *5.1.2 Underlying inflation and imported inflation: An In-Depth Look*

Note: The following is an analysis of inflation between January 2005 and January 2007 that was published on NISR website in February 2007. Because of its importance for the current publication it is reproduced here with some minor changes.

Shown below are tables and diagrams that detail trends in underlying inflation as well as imported inflation. From these tables, it is clear that core inflation and imported inflation have been decreasing in recent years.

**Table 5-1: Evolution of inflation rate**

	<b>Jan-05</b>	<b>Fév-05</b>	<b>Mar-05</b>	<b>Avr-05</b>	<b>Mai-05</b>	<b>Juin-05</b>	<b>Juil-05</b>	<b>Août-05</b>	<b>Sep-05</b>	<b>Oct-05</b>	<b>Nov-05</b>	<b>Déc-05</b>
General index excluding fresh products and energy (core index)	111.9	112.3	113.2	113.2	114.7	114.1	113.9	114.3	114.6	114.2	114.0	114.1
Monthly (in %)	0.95	0.32	0.81	0.04	1.28	-0.53	-0.17	0.40	0.19	-0.28	-0.20	0.04
Annual underlying inflation rate (in %)(1)	7.7	7.7	7.7	7.6	7.7	7.6	7.4	7.2	6.9	6.6	6.2	5.7
	<b>Jan-05</b>	<b>Fév-05</b>	<b>Mar-05</b>	<b>Avr-05</b>	<b>Mai-05</b>	<b>Juin-05</b>	<b>Juil-05</b>	<b>Août-05</b>	<b>Sep-05</b>	<b>Oct-05</b>	<b>Nov-05</b>	<b>Déc-05</b>
General index excluding fresh products and energy	116.0	116.6	117.1	117.6	117.5	118.0	118.2	118.4	119.8	119.6	119.9	120.5
Monthly change (in %)	1.74	0.46	0.43	0.47	-0.10	0.41	0.20	0.16	1.15	-0.14	0.21	0.56
Annual underlying inflation rate (in %)(1)	5.4	5.1	4.8	4.6	4.2	3.9	3.8	3.7	3.6	3.7	3.8	4.0

(1) In December 2006 the average index of the last twelve months (January 2006 to December 2006) increased by 4.0% compared to the average index of the previous twelve months (January 2005 to December 2005)

**Table 5-2: Imported Inflation**

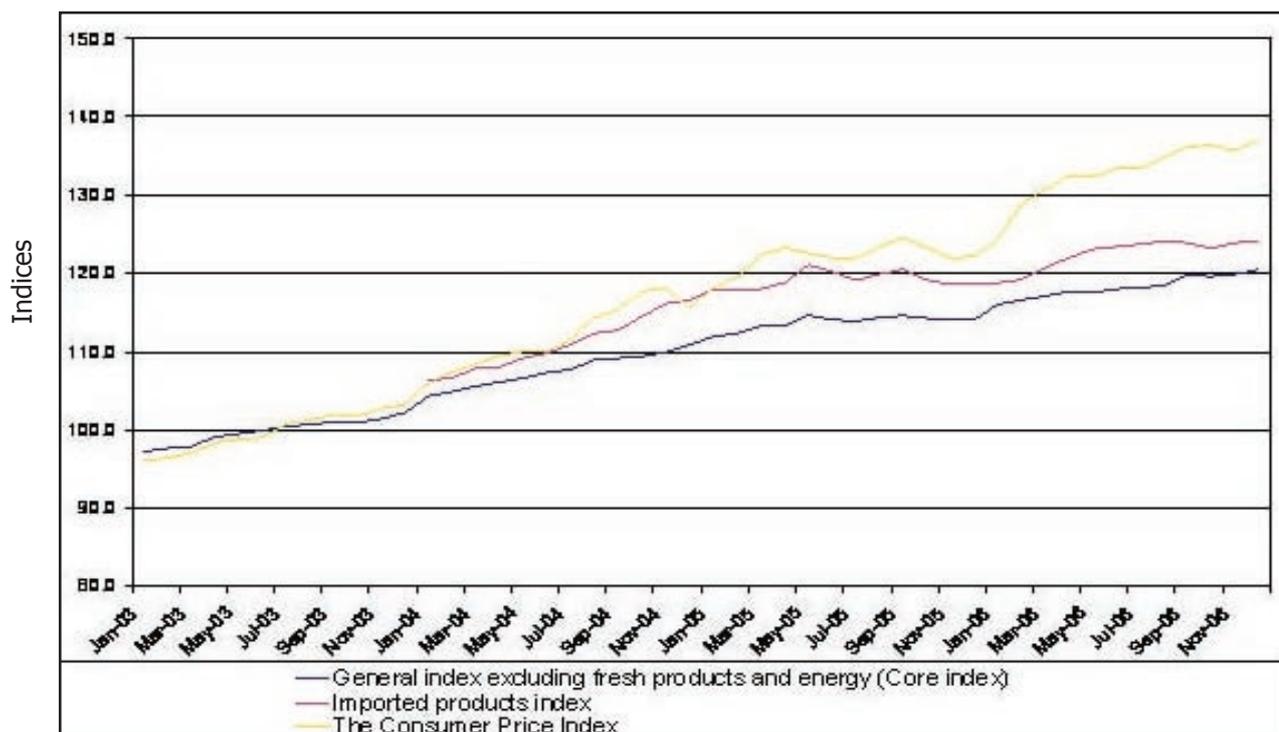
	<b>Jan-05</b>	<b>Fév-05</b>	<b>Mar-05</b>	<b>Avr-05</b>	<b>Mai-05</b>	<b>Juin-05</b>	<b>Juil-05</b>	<b>Août-05</b>	<b>Sep-05</b>	<b>Oct-05</b>	<b>Nov-05</b>	<b>Déc-05</b>
Imported products index	117.9	117.8	118.0	118.8	121.1	120.3	119.2	119.8	120.5	119.2	118.6	118.7
Monthly change												
Variations mensuelles (en %)	1.14	-0.08	0.13	0.70	1.90	-0.64	-0.95	0.58	0.53	-1.02	-0.56	0.08
	<b>Jan-05</b>	<b>Fév-05</b>	<b>Mar-05</b>	<b>Avr-05</b>	<b>Mai-05</b>	<b>Juin-05</b>	<b>Juil-05</b>	<b>Août-05</b>	<b>Sep-05</b>	<b>Oct-05</b>	<b>Nov-05</b>	<b>Déc-05</b>
Imported products index	118.8	119.3	120.8	122.0	123.1	123.4	123.7	124.1	123.9	123.2	123.9	124.1
Monthly change (in %)	0.09	0.39	1.27	0.98	0.95	0.25	0.27	0.29	-0.18	-0.54	0.57	0.13
Annual imported inflation rate (in %)(2)	6.6	5.8	5.2	4.6	3.9	3.3	3.0	2.8	2.5	2.4	2.6	2.8

(2) In December 2006 the average index of the last twelve months (January 2006 to December 2006) increased by 2.8% compared to the average index of the previous twelve months (January 2005 to December 2005)

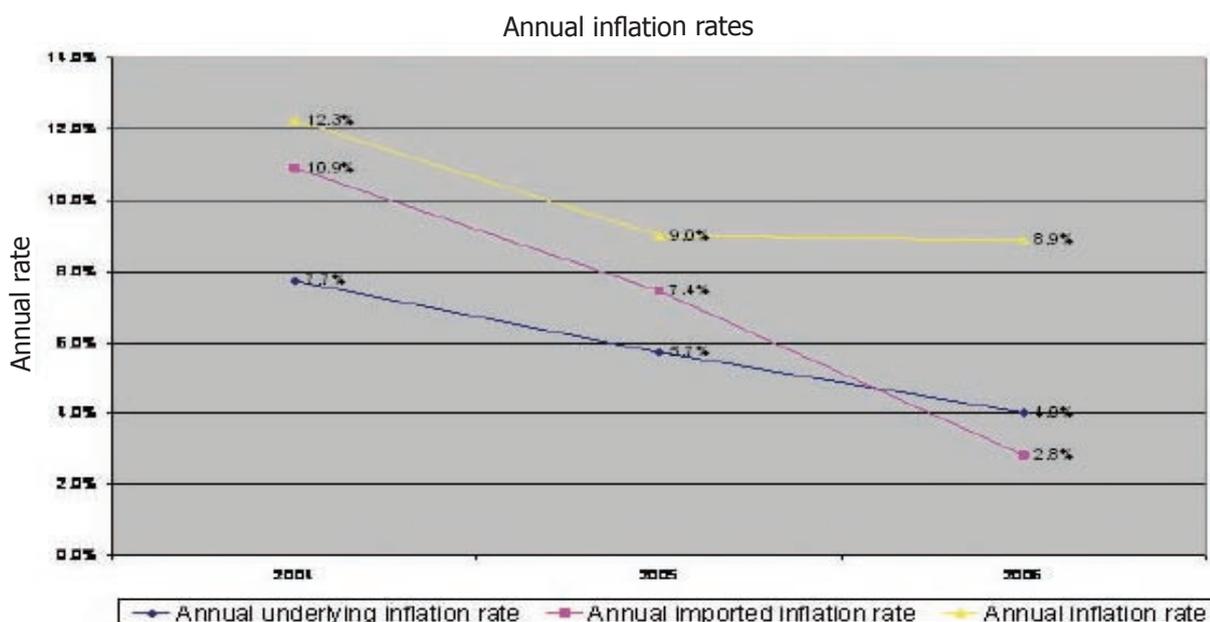
Table 5-3: Comparison of the CPI with Core Inflation and Inflation from Abroad

Year	2004	2005	2006
General Index Excluding Fresh Products and Energy	107.6	113.7	118.3
Imported Products Index	110.9	119.2	122.5
CPI (All Items Index)	112.0	122.1	132.9
Annual core inflation rate	7.7%	5.7%	4.0%
Annual imported inflation rate	10.9%	7.4%	2.8%
Annual inflation rate	12.3%	9.0%	8.9%

Graph 5-1: Evolution of inflation



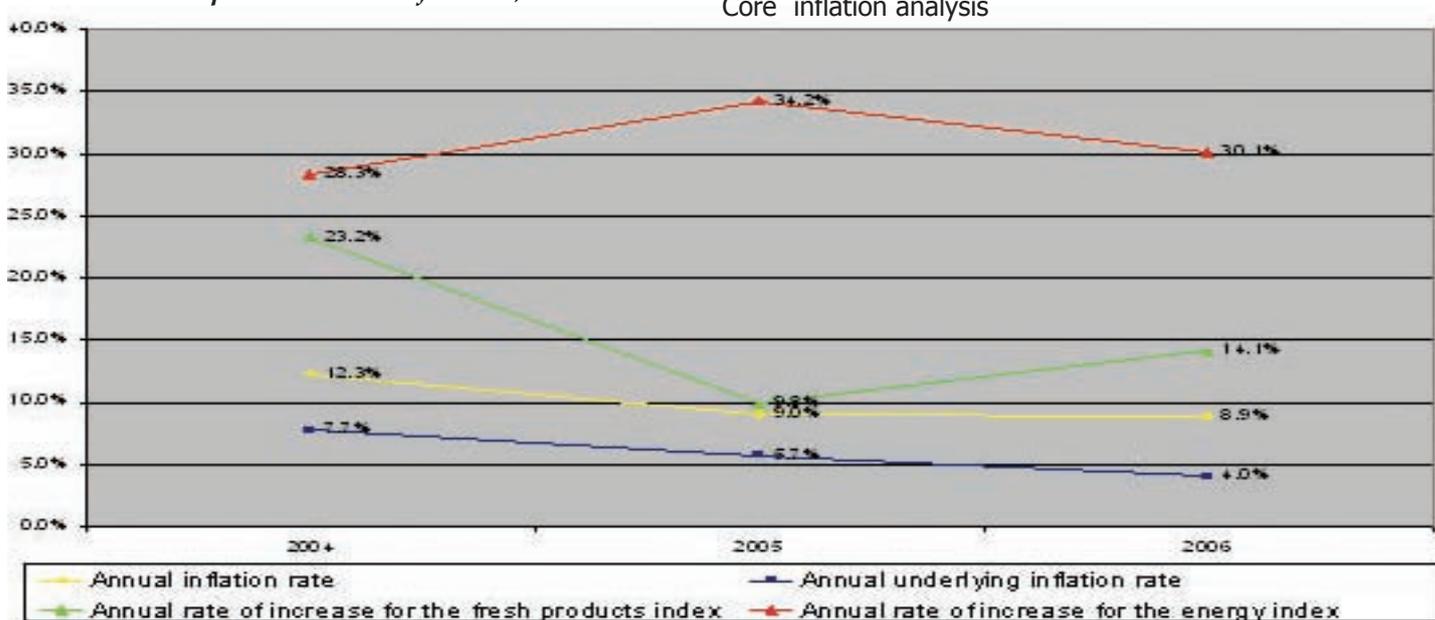
Graph 5-2: Annual inflation rate, 2004 – 2006.



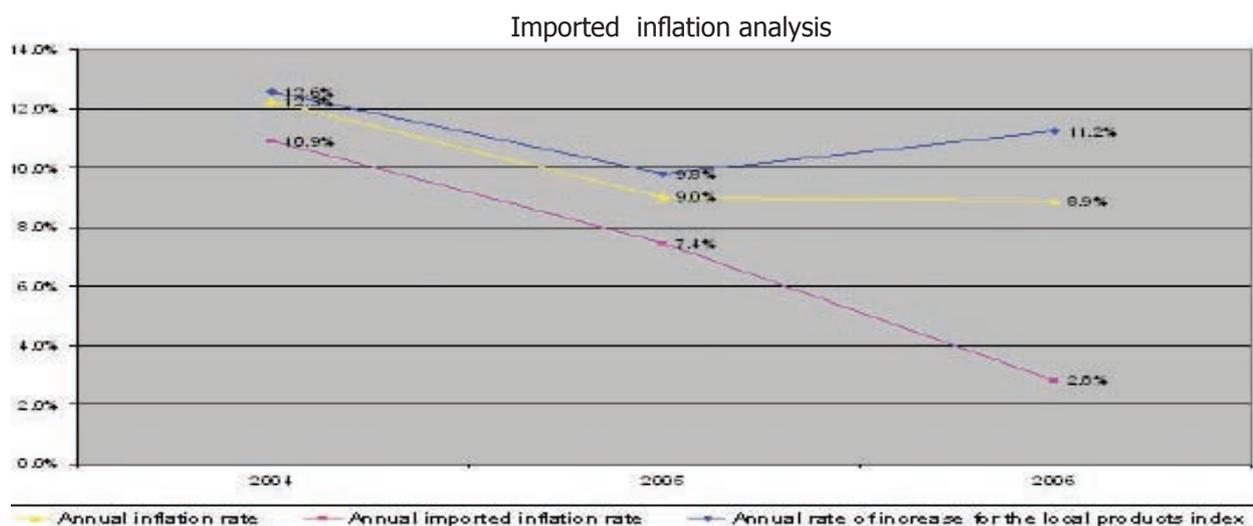
Prices in the past three years have increased but at a slower rate. Most notably, the rate of change of the imported products index decreased most sharply; from 10.9% in 2004 to only 2.8% in 2006. Also, core inflation, calculated by removing fresh products and energy from the basket of goods and services, shows an important downward trend since 2004. It stands at a rate of only 4.0% in 2006, which is a quite remarkable achievement. The CPI, on its part, did not really experience the same trends as did the imported products index and underlying inflation. However, it too has increased at a decreasing rate in the past three years. Nonetheless, its rate of increase (the inflation rate for the country) has undergone a somewhat mild downward trend. Indeed, the inflation rate had a value of 12.3% in 2004 and it was equal to 8.9% in 2006, which is not a big difference if we compare this evolution with trends in core inflation or inflation from abroad.

When analyzing underlying inflation and imported inflation in more details, some important features become apparent. The following figures illustrate these aspects.

**Graph 5-3: Core inflation, 2004 – 2006**



**Graph 5-4: Imported inflation, 2004 – 2006.**



Food and energy are largely responsible for the high rates of inflation observed in the past three years. Indeed, these categories have registered extremely high rates of increase since the year 2004. These rates have been every time greater than the inflation rate of the corresponding period. Not surprisingly, underlying inflation has been reasonably low since 2004; at least its trend is showing encouraging signs. In light of this, monetary policy from the National Bank of Rwanda seems not to be responsible for the rates of inflation seen in recent years. With a weight of about 30% of the basket of goods and services that make up the sample for the Consumer Price Index, the increase in the prices of energy and food products (mostly those that are produced locally) have led to high rates of inflation. Any policy meant to decrease the inflation rate should target mainly these two items. It is also clear that local products of different kinds constitute the major cause of inflation in Rwanda; at least in recent times (see figure entitled "Imported inflation analysis"). Indeed, the annual rates of increase of locally produced items are greater than the inflation rate.

Furthermore, for the same time period, rates of increase of products made abroad are much lower. In addition, products (and services) made in Rwanda make up about 70% of all goods and services consumed in the country. This points to the fact that the inflation observed in recent years does not come from foreign countries. Therefore, any foreign trade policy or exchange rate policy aimed at decreasing the inflation rate via a reduction of the level of imports would not be very helpful.

Likewise, reducing import duties so as to decrease the price of imported products does not seem to be effective either. Instead, it is the local industry that ought to be targeted. A further concern is that domestically made products are fast becoming less competitive with time. Indeed, the rate of increase of the local products index becomes greater than the rate of increase of the imported products index each month (i.e. the distance between the two curves becomes larger). This might have an adverse effect on terms of trade, the balance of payments and international trade in general.

On a more positive note, a worldwide study on Purchasing Power Parity found that Rwanda is ranked among the countries where the price level is lowest across the African continent. Indeed, with a price level index of 1.00 for the whole of Africa, Rwanda's index stands at only 0.89 for the year 2005. Therefore, prices in 2005 were 11% lower in Rwanda when compared to the African average. Indices for almost all other African countries vary between 0.62 and 3.68.

From among 44 African countries studied, Rwanda is ranked as the seventh with the lowest index. An important implication of this is that even though the imported products index in our CPI has registered rates of increase that have been lower since 2004, products imported from African countries may very well not be an important factor in these decreasing rates.

As a result, it is very likely that products imported from outside Africa have played a major role in reducing the rate of increase of the imported products index since 2004. It is true that the preliminary results of the study are only

---

(1) The study was undertaken by the World Bank in cooperation with the Africa Development Bank in the framework of the International Comparison Program.

relevant for the year 2005. But because the trends observed today as far as Rwandan inflation is concerned are a continuation of the situation in 2005, it is possible to draw conclusions based on these results. As a matter of fact, trends in Rwandan inflation have not undergone any drastic change since 2005. Final results of the study on global Purchasing Power Parities are due in December 2007.

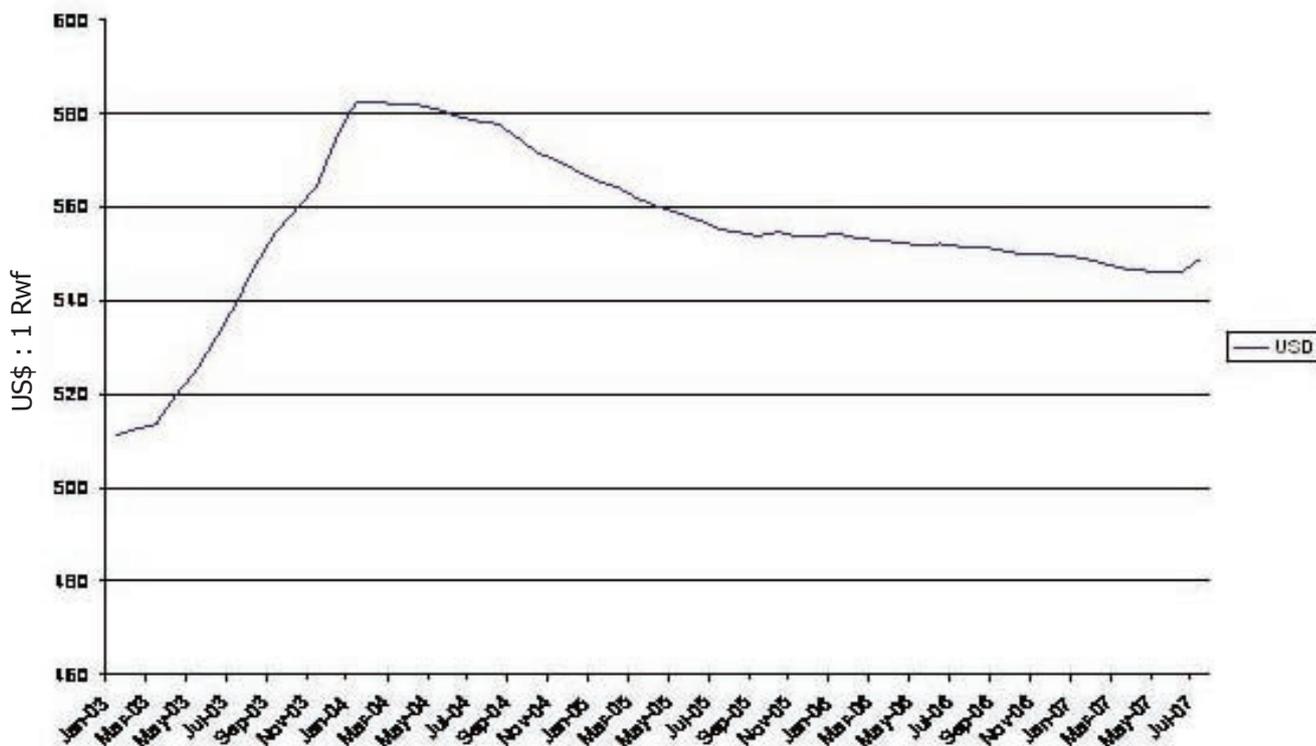
## 5.2. Exchange rate

In 2006, the Rwandan franc appreciated against the US dollar. One US dollar could be exchanged for 551.76 Rwandan francs, which, compared to the year 2005, was a fall of 1.08%. For the month of December 2006, the exchange rate of the Rwandan franc against the US dollar was 549.67 and in December 2005, its value was 553.94: an appreciation of 0.8% on part of the Rwandan franc.

Against currencies of neighboring countries, the Rwandan franc, in 2006, depreciated against the Kenyan shilling and the Burundian franc by 3.7% and 5.3%, respectively. It appreciated against the Ugandan shilling and the Tanzanian shilling: By 2.5% and 9.7%, respectively. In 2005, the Rwandan franc appreciated against every currency of the neighboring countries; the only exception being the Kenyan shilling for which the appreciation was very small (only 1%). The Rwandan franc, during that period, appreciated most against the Tanzanian shilling (+7.3%).

At the end of the year 2006, one Euro was worth 726.36 Rwandan francs. In December 2005, that exchange rate was 656.78 Rwandan francs for one Euro. In December 2004, the exchange rate of the Rwandan franc against the Euro was 759.16.

*Graph 5-5: Evolution of the exchange rate, January 2003 – July 2007*



## **Annex V: Table 5.1 – 5.6**

Table 5.1: Consumer price index, 2004 (base 100 in 2003, urban areas)

Table 5.2: Consumer price index, 2005 (base 100 in 2003, urban areas)

Table 5.3: Consumer price index, 2006 (base 100 in 2003, urban areas)

Table 5.4: Consumer price index, 2007 (base 100 in 2003, urban areas)

Table 5.5: Monthly exchange rate

Table 5.6: Neighbouring countries, incl. Kenya (annual average)

## VI. BALANCE OF PAYEMENTS AND EXTERNAL TRADE

The Balance of the payments is a statistical methodology that summarizes systematically, for a given period, the economic transactions of country with the rest of the world. The transactions, mostly between residents and non residents, are those made on goods, services and revenues; those that give rise to financial credits to the rest of the world or financial engagements; and those that, like donations, are considered as transfers, for which there should be counter-recording in order to balance - in accounting language - one way transactions.

During the period 2000-2006, the Balance of Payments of Rwanda recorded a surplus, except in 2003 where the global balance was a deficit of 35.7 millions USD. The imbalances that are mainly due to imports greater than exports, and by the deficit of the service balance, have generally been absorbed by the current and capital transfers as well as various loans.

In 2003 however, these transfers could not cover the deficits of the commercial and service balances; since the net official loans recorded lower levels; dropping from 53.1 millions of USD in 2002 to 7.7 millions USD in 2003; representing a decline of 85.5%.

As a consequence, with the exception of the year 2003, the available financing recorded positive and some times variations reaching levels of more than 100 millions of USD in 2004 and 2005. The level of the gross reserves in months of imports of goods and services were for every year, higher than 6 months for the period of 2004-2006; with an average of 386.61 millions of USD.

The Balance of payments is subdivided into two main parts that are the current balance and the capital and financial operations account.

### 6.1. Current balance

The current balance of Rwanda is characterized by the values of the imports of goods and services greater than the exports. The net current transfers, although in increase since 2002, could not eliminate the deficit caused by the levels of imports CIF covered at less than 30% by the exports.

However, the current balance recorded least deficits in 2004-2005 with respective values of -35.2 millions of USD and -58.48 millions of USD if compared to the years 2000-2003 that had registered respective levels of -114.9 millions of USD; -96.8 millions of USD; -101.2 millions of USD; and -97.4 millions of USD.

The improvement achieved in 2004 and 2005 is mainly due to the increase of the current transfers. From 226.4 millions of USD in 2003, they went up to 313.9 millions USD in 2004 and 364.5 millions USD in 2005. Nevertheless, in 2006, the deficit of the current balance became more pronounced; reaching a value of 133.52 millions of USD for the first time since 2000. The deficits of the current balance of Rwanda can be explained through its components which are the commercial balance, the balance of services and current transfers.

### 6.1.1. Commercial Balance

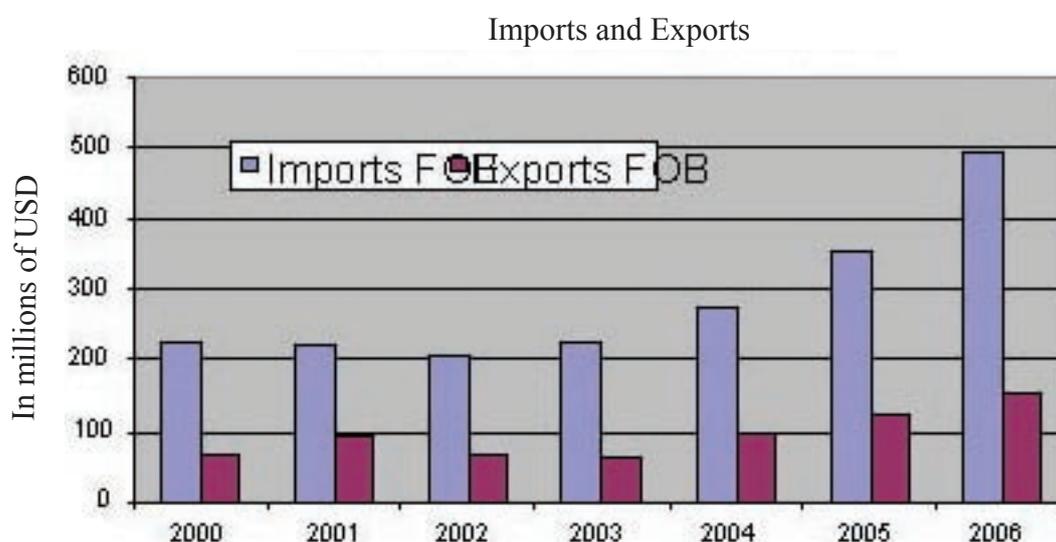
The commercial balance of Rwanda shows structural deficit with very low levels of exports compared to imports.

*Table 6-1: Commercial Balance 2000-2006 (in millions de USD).*

		2000	2001	2002	2003	2004	2005	2006
Imports	FOB	226.9	225	204.1	229.1	276.3	353.64	493.3
Exports	FOB	69	93.6	67.4	63.1	98.1	125	153.7
Balance		-157.8	-131.5	-136.8	-166	-178.3	-229.2	-339.6

Source: BNR

*Graph 6-1: Imports and Exports 2000 – 2006 (million USD)*



The exports of Rwanda are dominated by coffee, tea and some minerals that constituted nearly 85% of the FOB value of the exports in 2004; 80% in 2005 and 2006.

The imports of the country are classified in four main categories that are the consumer goods, equipment goods, intermediate goods and energy and lubricants. In general, the consumer goods occupy the first place among the imports. In 2006, they represent 29% of the total value of imports CIF.

#### 6.1.1.1. Exports.

The weak diversification of the export products and the low level of the values exported continue to be a handicap of the country to generate its own foreign currencies. The prices of export products, fixed by the international market, are very volatile. The exports of our main cash crops (coffee and tea), depend on climatic conditions that are beyond the country's control.

However, some efforts are currently deployed to increase the level of exports by improving quality exported and diversification of export products. Between

2003 and 2004, the values of exports increased by 55.52%, going from 63.1 millions of USD to 98.1 millions USD. They increased by 27.46% from 2004 to 2005, from 98.1 millions of USD to 125 millions USD and 23% between 2005 and 2006, growing from 125 millions of USD to 154 millions USD. The exports of coffee exceeded 15.01 millions in 2003 to 32.2 millions USD in 2004, 38.3 millions in 2005 and 54.4 millions USD in 2006. The exports FOB of tea were estimated between 22 millions and 24 millions USD over the period 2003-2005. They however registered good performance in 2006; reaching a value of 32 millions USD; indicating a growth rate of 31% from 2005.

The increase in value of exported coffee has been encouraged by the progressive improvement of the quality and prices. The exported fully-washed coffee amounted to 300 tons in 2003; 542 tons in 2004 and 739 tons in 2005. The average price of coffee increased, growing from 1.01\$/Kg in 2003 to 1.2\$/Kg in 2004 and 2.1\$/Kg in 2005. The price of 2005 remains more or less the same in 2006. The quantity exported which totaled 14,700 tons in 2003 has almost doubled, reaching 27,085 tons in 2004 before dropping to 18,399 tons in 2005. In 2006, the export performance raised to 26,534 tons.

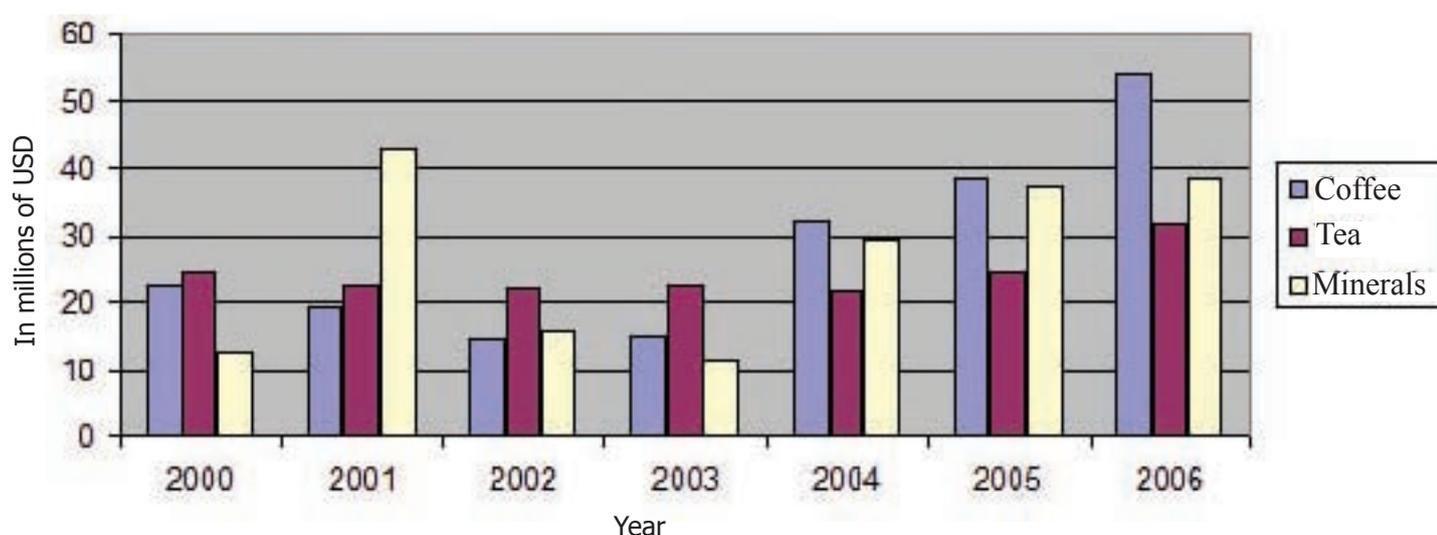
Exports of minerals registered a drop of 1.8% between 2005 and 2006.

**Table 6-2: Exports of Coffee, Tea & Minerals (val FOB in millions USD)**

	2000	2001	2002	2003	2004	2005	2006
<b>Coffee</b>	22.52	19.36	14.65	15.01	32.2	38.3	54.0
<b>Tea</b>	24.28	22.71	22.02	22.52	21.55	24.38	31.9
<b>Minerals</b>	12.58	42.63	15.87	11.09	29.27	37.3	36.6

Source: BNR

**Graph 6-2: Exports of Coffee, Tea & Minerals (val FOB in millions USD)**



Although still low, the trend of exports recorded for the period 2004-2006, after the drop in 2002 and 2003, deserves particular attention for the progressive improvement in the coming years.

### 6.1.1.2. Imports

During the period 2003-2006, the imports CIF registered a significant increase of 19.96%. Over the entire period 2000-2006, final consumer goods represented an important part in the total of imports CIF. Since 2002 however, the imports of equipment and intermediate goods registered an increase, representing a range of 21% to 25% of the total imports CIF.

The importance of equipment goods in overall imports recorded in these years is due to the increase of the imports of machines and equipments, like automatic information processing machines, power generators, as well as the electric devices for telephone communication.

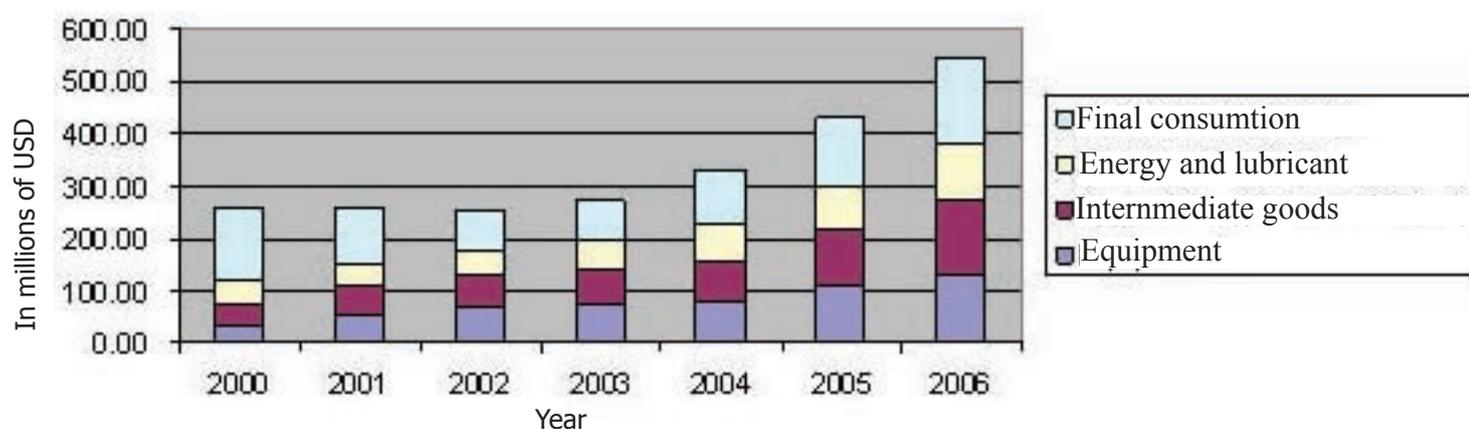
The increase of imports of generators also led to the increase of those of fuel that constitute more than 90% of energy and lubricants. The increase in imports of intermediate goods is especially a result of the rise of the imports of construction materials.

*Table 6-3: Imports CIF 2000-2006 ( in millions USD)*

	2000	2001	2002	2003	2004	2005	2006
<b>Equipement</b>	33.03	55.81	68.01	75.95	80.0	109.9	126.8
<b>Intermediate goods</b>	43.32	55.48	61.76	64.81	79.20	111.16	146.15
<b>Energy and lubricant</b>	44.92	39.51	42.20	53.39	68.64	78.16	108.56
<b>Final Consumption</b>	137.26	109.79	81.21	79.10	102.46	131.17	166.54
<b>Total</b>	258.53	260.59	253.18	273.25	330.28	430.37	496.70

Source: BNR / Custom

*Graph 6-3: Imports CIF 2000-2006 ( in millions USD)*



### 6.1.2. Balance of Services

The balance of services has a behavior similar to that of commercial balance. Fees received by the residents from services provided to nonresidents remain far away below the payments for the services received from nonresidents, during the period 2000-2006. In 2006, fees received for services provided to the non residents represent 48% of those paid in in services received from abroad. Nevertheless, efforts are currently deployed to develop the service sector, like tourism could, in the future, attract more foreign currencies for the country.

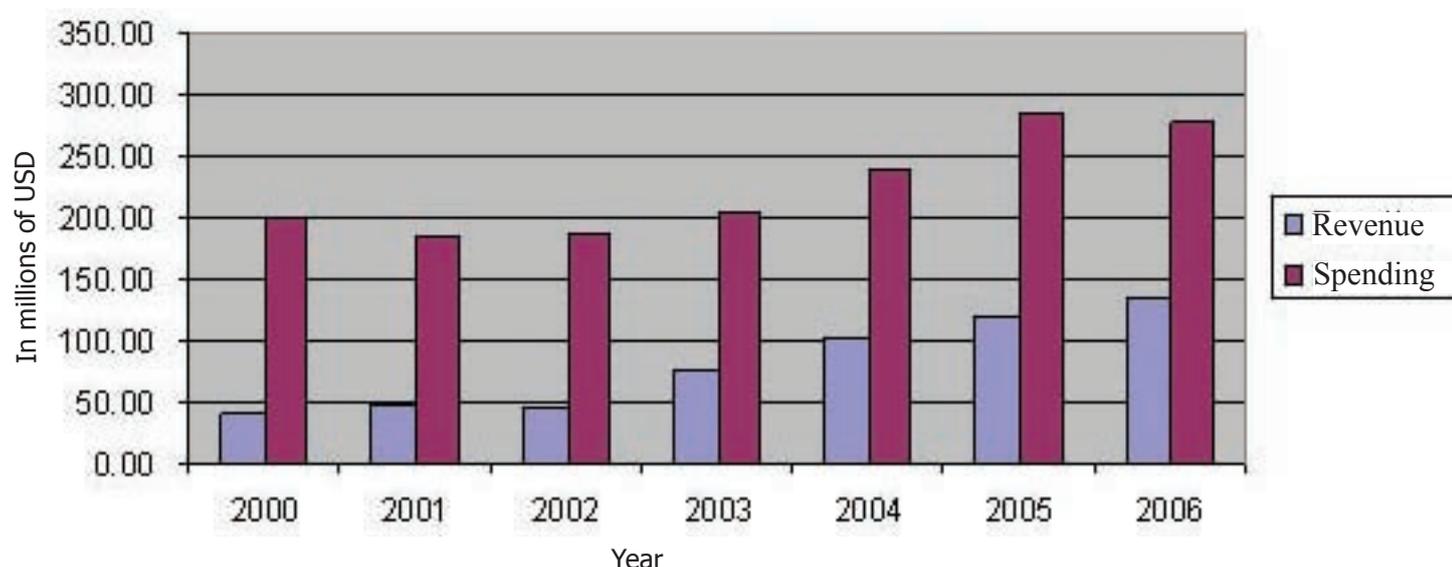
Generally, the balance of services shows a structural deficit with significant payments for technical assistance that varied between 25% and 35% over the period 2000-2006. Import related fees, like transportation and insurance costs are especially as important due to the fact that Rwanda is a landlocked country. They are estimated to represent nearly 27% of the annual expenses for 2000-2006.

*Table 6-4: Balance of services, 2000-2006 (in millions USD)*

	2000	2001	2002	2003	2004	2005	2006
<b>Revenues</b>	40.60	48.2	46.06	76.47	102.65	119.71	134.62
<b>Spending</b>	200.08	183.89	187.68	203.66	239.71	286.17	278.52
<b>Balance</b>	-159.48	-135.66	-141.62	-127.19	-137.06	-166.46	-143.89

Source: BNR

*Graph 6-4: Balance of services, 2000-2006 (in millions USD)*



### 6.1.3. Balance of revenues

The balance of revenues so-called, the balance of service factors covers the revenues of the production factors. It covers, in either receipts or spending as the case maybe, the wages and remunerations and other payment in cash or in kind to residents and nonresidents workers. It also covers receipts and payments relating to the possession of external financial assets by residents and engagements towards nonresidents such as interests on placements, divi-

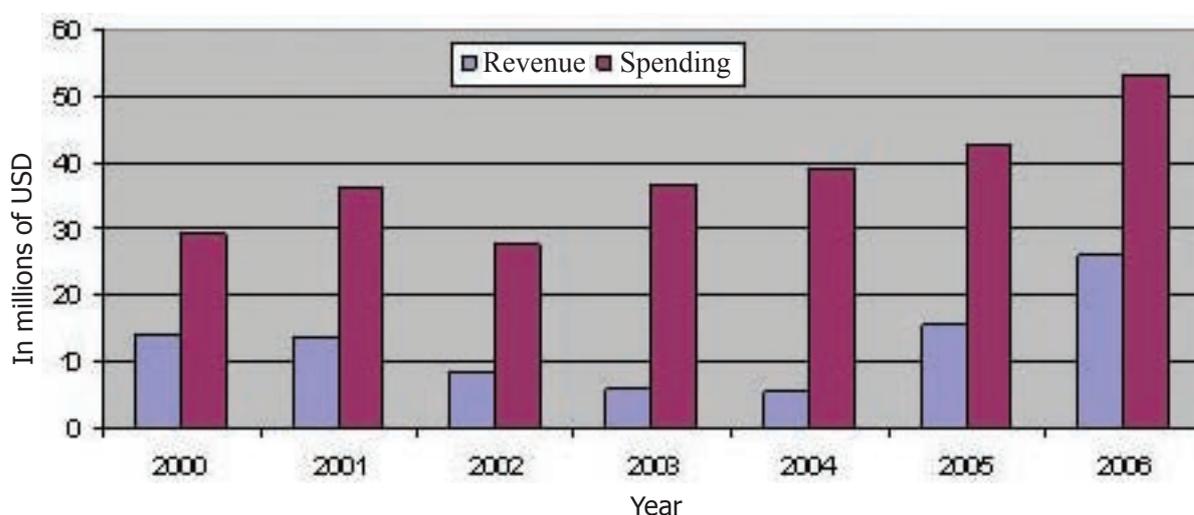
dends, interest on loans, property income as well as revenues from other financial assets. Like the commercial balance and the balance of services, the balance of revenues of Rwanda is showing a structural deficit with receipts representing 34% of spending during the period 2000-2006. In 2006, the total spending amounted to 53.27 millions of USD, receipts were estimated to only 25.84 millions of USD.

*Table 6-5: Balance of revenues, 2000-2006 (in millions USD)*

	2000	2001	2002	2003	2004	2005	2006
<b>Revenues</b>	13.87	13.80	8.45	6.17	5.56	15.45	25.84
<b>Spending</b>	29.22	36.3	27.5	36.7	39.2	42.7	53.27
<b>Balance</b>	-15.354	-22.485	-19.050	-30.533	-33.655	-27.213	-27.439

Source: BNR

*Graph 6-5: Balance of revenues, 2000-2006 (in millions USD)*



After an major deterioration in 2002, 2003 and 2004, the balance of revenues improved in 2005 and 2006, thanks to the increase of the placement revenues of the NBR that grew from 4.84 millions USD in 2004 to 11.67 millions USD in 2005 and to 20.01 millions USD in 2006.

Spending is dominated by interests on official loans and remunerations of service factors of nonresidents which represent on average 80% of the total spending during the period 2000-2006. The interests on public debt were evaluated at 11.45 millions USD in 2006 against 14.2 in 2005. The amount of service factor paid was estimated at 30.7 millions USD in 2006, against 20.68 in 2005. During the period 2000-2006, the spending amounted to 264.87 millions USD against receipts of only 89.14 millions USD.

#### *6.1.4. Current unrequited Transfert*

Unrequited transfers are those that don't receive in exchange, an economic value. They record operations on international cooperation such as grants for financing the current spending, taxes on incomes, workers' money transfers etc...

Constituted by official and private current transfers, the balance of unrequited transfers of Rwanda recorded a reduction of 12% in 2001, improved progressively from 2001 to 2005 with an increase of grants for budget support and humanitarian assistance in 2005 being nearly double of the 2002 level, rising from 170.80 millions of USD in 2002 to 317.97 millions USD in 2005.

In 2006, they dropped by 35%, reaching 207.5 millions USD, because of a considerable reduction of current support that dropped from 200.12 millions USD in 2005 to 128.35 millions USD in 2006.

It should also be noted that in the framework of Highly Indebted Poor Countries (HIPC), Rwanda benefited from a total debt relief of 132.24 millions US\$ during the period 2001-2005; meaning 12% of the total amount of the net current transfers of the period. In 2006 the country benefited again from an important cancellation of the multilateral debt amounting to 1,150 millions USD.

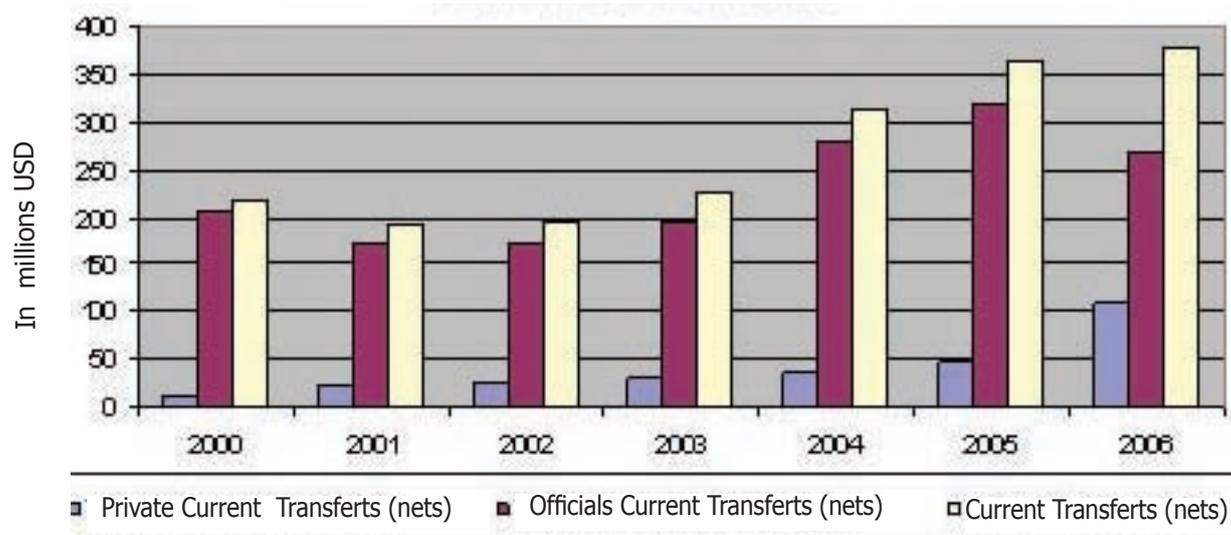
The current transfers are dominated by official transfers. The private transfers remain very low, compared to official transfers. They are essentially composed of transfers of nonresidents in favor of non governmental organizations and the religious missions resident in Rwanda, workers' money transfers etc. The total of the period 2000-2006 represented only 18.1% of the official transfers.

*Table 6-6: Net Current transfers (in millions \$)*

	2000	2001	2002	2003	2004	2005	2006
<b>Private Current Transfers (nets)</b>	11.03	21.74	24.52	31.33	35.05	46.73	109.53
<b>Official Current Transfers (nets)</b>	206.71	170.86	170.80	195.05	278.87	317.79	267.90
<b>Current Transfers (nets)</b>	217.74	192.60	195.32	226.38	313.93	364.52	377.43

Source: BNR

*Graph 6-6: Net Current transfers (in millions \$)*



## 6.2. Capital and financial operations accounts

### 6.2.1. Capital account.

The capital account records unrequited transfers destined to finance investments, acquisition of fixed tangible and non tangible assets, transfers of migrants, debt cancellation, acquisition of land etc.

For the period 2002-2003, the capital account was at its lowest level due to the reduction of support to projects that dropped from 50.20 millions USD in 2001 to 41.7 in 2002, to 41.09 in 2003 before rising to 60.56 in 2004 and to 173.48 millions USD in 2006.

### 6.2.2. Financial Operations account.

The financial operations account records external assets and financial liabilities. For our country, the financial operations account records the operations on loans and repayments to foreign donors, foreign investments and the variations of external assets belonging to commercial banks.

Thus, financial operations were extremely low in 2003. The drawings on loans for budget support were evaluated to only 10.54 millions USD against 50.73 millions USD in 2002; 60.75 millions USD in 2004 and 30.88 millions USD in 2005.

The realizations of 2003 brought back the financial operations account close to its 2000 level where the effective loan disbursement for budget support amounted to 16.12 millions USD.

At the same time, long-term loans for projects financing were reduced, dropping from 44.26 millions USD in 2001 to 33.17 millions USD in 2002, 29.37 millions USD in 2003. They however reached the level of 47.86 millions USD in 2004 and 59.10 millions USD in 2005. They had been 31.16 millions USD in 2000.

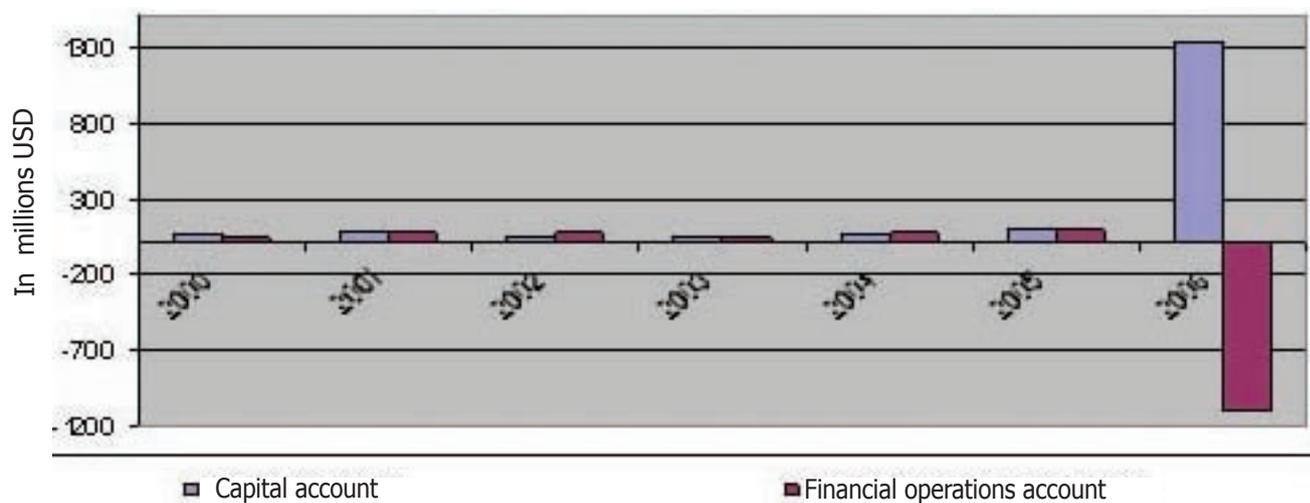
The total of the loan repayments for the period 2000-2005 was 182.49 millions USD.

*Table 6-7: Capital and financial operations account*

	2000	2001	2002	2003	2004	2005	2006
<b>Capital account</b>	62.67	68.70	41.70	41.09	60.56	93.47	1323.48
<b>Financial operations account</b>	35.91	78.02	69.16	30.23	74.39	82.48	-1105.16
<b>Capital &amp; financial operations account</b>	98.58	146.72	110.86	71.32	134.95	175.95	218.32

Source: BNR

**Graph 6-7: Capital and financial operations account**



The year 2006 was essentially marked by an important reduction of our financial commitment and an increase of our capital account as a result of the multilateral debt cancellation by IDA and the African Development Bank. Our financial commitments decreased by 1,105.16 millions of USD and our capital account increased by 1,323.48 millions of USD.

### 6.2.3. Financing the overall balance

The available financing for the period 2000-2006 was, generally in increase, except in 2003 where the balance of payments registered a global deficit of 35.7 millions of USD; financed by a reduction of the official reserves of 28.8 millions of USD, a exceptional financing of 24.7 millions of USD constituted by the external debt rescheduling of 22.2 millions of USD and a cancellation of the external debt evaluated at 2.5 millions of USD. For the remaining years, the surplus of the Balance of Payments resulted in annual increases of the net external official assets. They reached important levels of 106.82 millions USD in 2004 and 120.23 millions USD in 2005, resulting especially in the rise of external supports received by the country in the form of grants and loan at favorable conditions. With this situation, the stocks of the NBR reserves should cover between 6 and 7 months of imports of goods and services, in 2004 and 2006.

Although the Balance of Payments of Rwanda was generally a surplus, over the period 2000-2006, it is important to note that the external supports contributed greatly to this situation.

### Annex VI : Table 6.1 – 6.8.

Table 6.1: Balance of Payments, in millions USD

Table 6.2: Rwanda Exports (FOB in millions USD)

Table 6.3: Rwanda Imports (in millions USSD)

Table 6.4: Services

Table 6.5: Unrequited transfers

Table 6.6: Capital and financial operation account

Table 6.7: Available financing

Table 6.8: Imports of non residents by economic destination

## **7. MONEY, CREDIT, INTEREST RATE AND FINANCIAL SYSTEM**

### **7.1. General**

In 2006 the reorganization of the financial system continued and reinforced. Thus, the process of recapitalization of a bank in difficulty became clearer with the discussions to handle its social capital and management to foreign investors. Moreover, thanks to the increased recovery efforts and the increase of the credit portfolio, non performing credit rate has been brought back to 18% against 23% in 2005.

The total amount in the balance sheet of the deposit banks went from 675.61 to 794.39 billions Frw in 2005 and 2006, representing an increase of 17.6%. The total amount in the balance sheet for commercial banks went up from 275.83 to 353.5 billions Frw, whereas the balance sheet of the National Bank grew from 347.95 to 367.4 billions of Frw; the popular banks registering 51.8 to 73.49 billions Frw.

The net result of the commercial banks grew from 2.3 to 10.7 billions Frw in 2005 and 2006 respectively, while NBR results amounted to 1.6 to 2.9 billions Frw. On the legal and regulatory aspects, the capital of commercial banks rose from 1.5 to 5 billions Frw with effect from January 2008, and the laws governing the BNR and the commercial banks have been reviewed to take into account the new developments in the sector.

Following growth of credit which was stronger than the growth of own capital, solvency of the banks decreased slightly, dropping down from 14% to 13.4% in 2005 and 2006 respectively. However, except one bank that faced management problems, all other commercial banks respected the norm of 10%. In micro-finance subsector, after bankruptcy of a number of micro finance institutions that were going to provoke general panic, strict measures forbidding anarchical creation of microfinance stabilized considerably this subsector. A law governing the subsector has also been elaborated and sent to the parliament.

Moreover, the process of liquidation of 8 bankrupted micro - finance institutions has started with the government's decision to compensate the depositors to a maximum of 50% of their loss; the difference having to be assured by recovery exercise of the credit portfolio. Only one micro-finance institution went bankrupt during the year. As regard the monetary management, no change has been introduced in 2006. The present chapter treats monetary developments, credit and interest rates observed in 2006.

### **7.2. The Financial Sector in Rwanda**

In 2006, the financial system of Rwanda counted seven commercial banks, those are Bank of Kigali (BK), Commercial Bank of Rwanda (BCR), FINA BANK, Bank of Trade, Development and industry (BCDI), Bank à la Confiance d'Or (BANCOR), General Company of Bank (COGEBANQUE) and the Housing Bank of Rwanda (since 2005).

It also comprises a Development Bank (BRD), 134 popular banks affiliated to the Network of the Popular Banks of Rwanda (UBPR), 69 saving and credit co-operatives and other microfinance institutions approved by the BNR, of which 39 definitely approved and 30 on provisional basis.

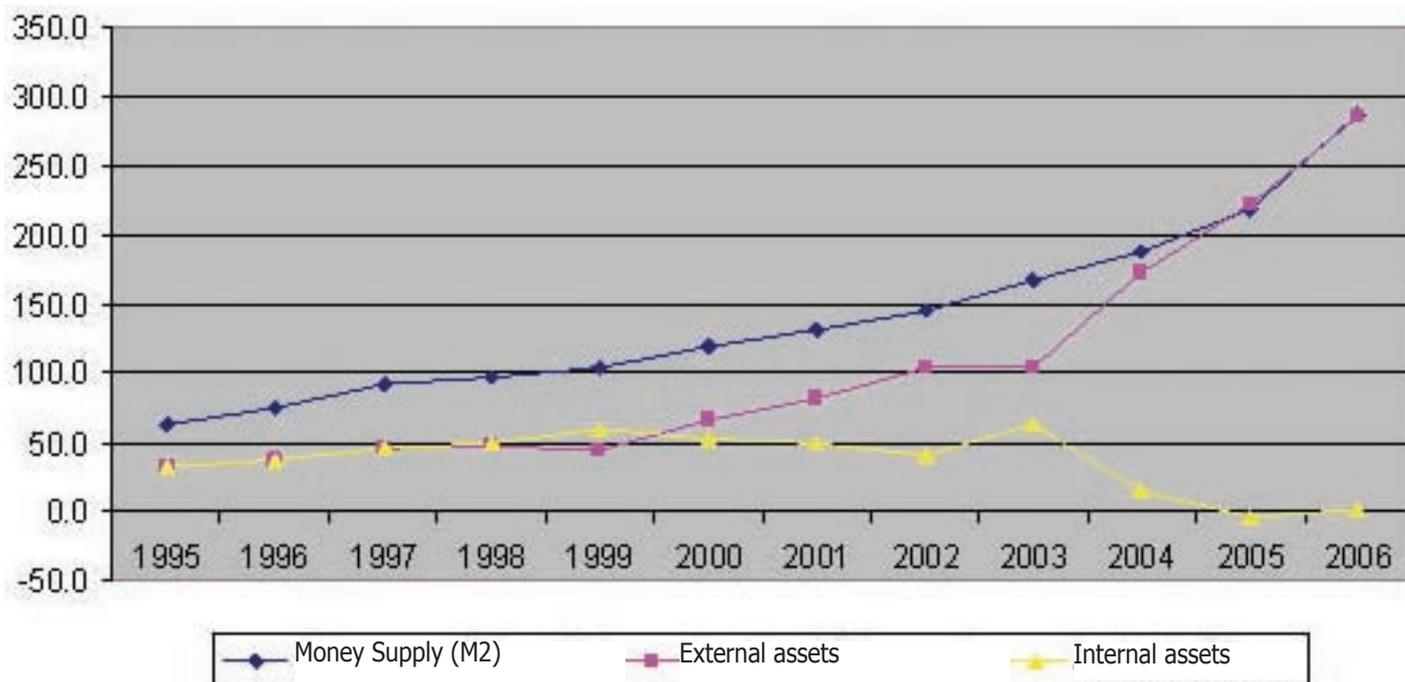
It comprises also 4 classic insurance companies (SONARWA, SORAS, CO-GEAR, CORAR) and two medical insurance companies, namely the Rwanda Medical Insurance (RAMA) and Military Medical Insurance. Also, a new bank (Opportunity International Bank of Rwanda) and a discount company were approved by the concerned authority, which is the National Bank of Rwanda.

Also, the supervision authority of the NBR was extended to insurance sector and pension funds.

### 7.3. Monetary Development

The money supply went up from 218.4 to 285.6 billions Frw between 2005 and 2006 (an increase of 30.8%). This rise reached 16.6% between 2004 and 2005. This accelerated growth of money supply results from the considerable rise of external assets (+28.2%) as well as internal assets (+23.1%).

*Graph 7-1 : Evolution of money supply and its counter parts 1995 - 2006 (billions Frw)*



Source : BNR, Department of Research

#### 7.3.2. Sources of money creation

##### 7.3.2.1. Net external assets

Due essentially to external disbursements for budget and projects support, net external assets grew from 222.4 in 2005 to 285.1 billions Frw in 2006, registering an increase of 28.2%. The main contributors in 2006 are the United Kingdom with 63.7 millions US dollars, the European Union with 22.5 millions

USD dollars, Sweden with 10.9 millions US dollars, the African Development Fund with 8 millions US dollars and the World Bank with 6.9 millions USD dollars. As the support to the projects is concerned, the most important disbursements have been made by IDA with 45 millions US dollars, the Global Fund with 14.9 millions US dollars, the IFAD with 10 millions US dollars, the European Union with 5 millions US dollars and the Belgian Technical Cooperation with 2.8 millions US dollars.

It should be underlined also that with the implementation in January 2006 of the mechanism "Multilateral Debt Relief Initiative (MDRI)", which led to the cancellation of the IMF credit on the BNR in favor of the Rwandan Government, the net external assets of the NBR increased, while maintaining unaltered their gross level. The government spending subsequent to this abundant availability of financial resources has fuelled the money creation.

### *7.3.2.2 Internal assets*

The internal assets of the banking system rose from -3.9 to 0.9 billions Frw between 2005 and 2006, with a rise of 23.1%. This rise is explained by the increase of the internal credit.

This one rose from 70.8 to 93.2 billions of Frw. The increase of the internal credit results from the credit to the private sector, which went up from 131 to 162.2 billions Frw during the period under review, i.e. a rise of 23.8%. On the other hand, the net credit to Government; another component of internal credit, declined by 12.1%, going from -61.9 to -69.4 billions Frw, thanks to the external disbursements, but also to good performances in the collections of tax and non tax revenues recorded in 2006.

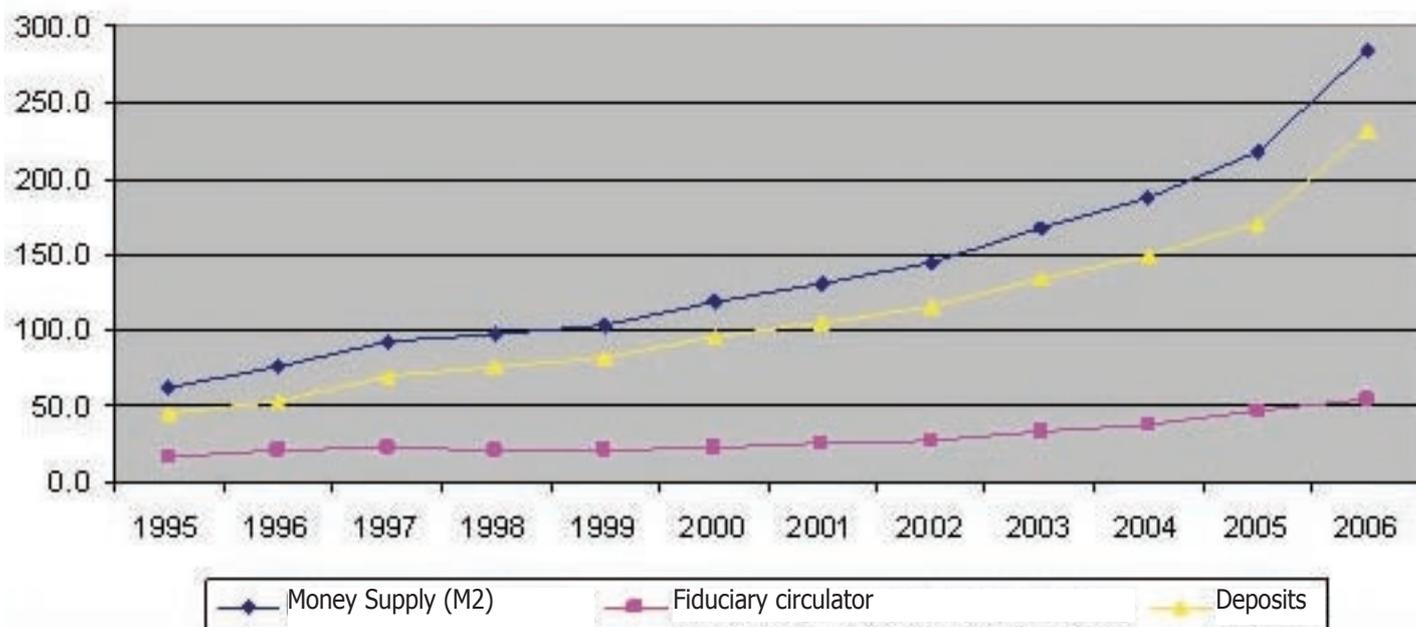
The distribution of the credit by sector reveals the constant predominance of the sectors "Trade, Restaurants and Hotels", "public Works", "Transportation" and "Manufacturing Industries" which represent respectively 47.3%, 16.9%, 13.7% and 7.2% against 47.1%, 18.1%, 10.7% and 11% respectively in 2005. It can be noted that despite its weight in the national economy (contribution to GDP and employment), agriculture has only benefited from 2.6% of the total credits against 2.3% in 2005.

### *7.3.3. Money supply*

Composed of the fiduciary and deposits, money supply grew from 218.6 to 286 billions Frw between December 2005 and December 2006, with an increase of 30.8%.

The fiduciary currency grew from 48.3 to 54.6 billions Frw, increasing by 13%, while the deposits have recorded a rise of 35.9%, growing from 170 to 231.3 billions Frw from 2005 to 2006. The following graph indicates the evolution of the money supply and its components, from 1995 to 2006.

*Graph 7-2 : Evolution of the money supply and its components, 1995 - 2006  
(billion Frw)*



Source : BNR, Department of Research

As it is shown in the above graph, deposits progress more quickly than the fiduciary currency.

### **7.3.4 Monetary base**

Between December 2005 and December 2006, the monetary base increased by 12.2%, rising from 64.1 to 71.9. This level has been achieved as a result of massive interventions of the BNR to maintain this indicator in the limits fixed by the ongoing economic reform program, supported by the Bretton Woods institutions and other financial donors.

Thus, in 2006, the punctures done by the NBR through liquidity loans totalized 360.25 billions Frw against 412.5 billions of Frw in 2005. The overnight loans have themselves totaled to 1,401.98 billions Frw against 433.8 billions Frw in 2005, whereas the treasury bonds amounted to 282.69 billions Frw against 161.12 billions Frw in 2005.

The desire for overnight placements shows clearly that all things remaining equals otherwise, the banks prefer very short term placements which don't oblige them to keep their resources for a long period.

### **7.4. Interest rate**

Because of overliquidity of the short-term banking, all rates implying a cost to the banks showed a downward trend in 2006 compared to 2005. Thus, the average pension rate dropped from 13.08% to 12.5%, the average credit rate dropped from 8.67% to 8.2% and the inter bank rate from 8.28% to 8.26%. On the other hand, the rates implying the income of the banks showed an upward trend. It is the case of the average debtor rate which went up from 15.78% to 15.87%, while the punctures rate rose from 7.36% to 8.68% and the rate on the Treasury bond increased form 9.18% to 9.82%.

**Annex VII : Table 7.1 – 7.8.**

Table 7.1: Monetary survey (in billion RwF)

Table 7.2: Interventions of the NBR on monetary market in 2005 and 2006

Table 7.3: Bank Credits by activity sector as of 31/12/2005

Table 7.4: Bank Credits by activity sector as of 31/12/2006

Table 7.5: Evolution of new credits by activity sector

Table 7.6: Bank Credits by term, 2003-05

Table 7.7: Interest rates

Table 7.8: Interest rates, monthly average.

## 8. PUBLIC FINANCE

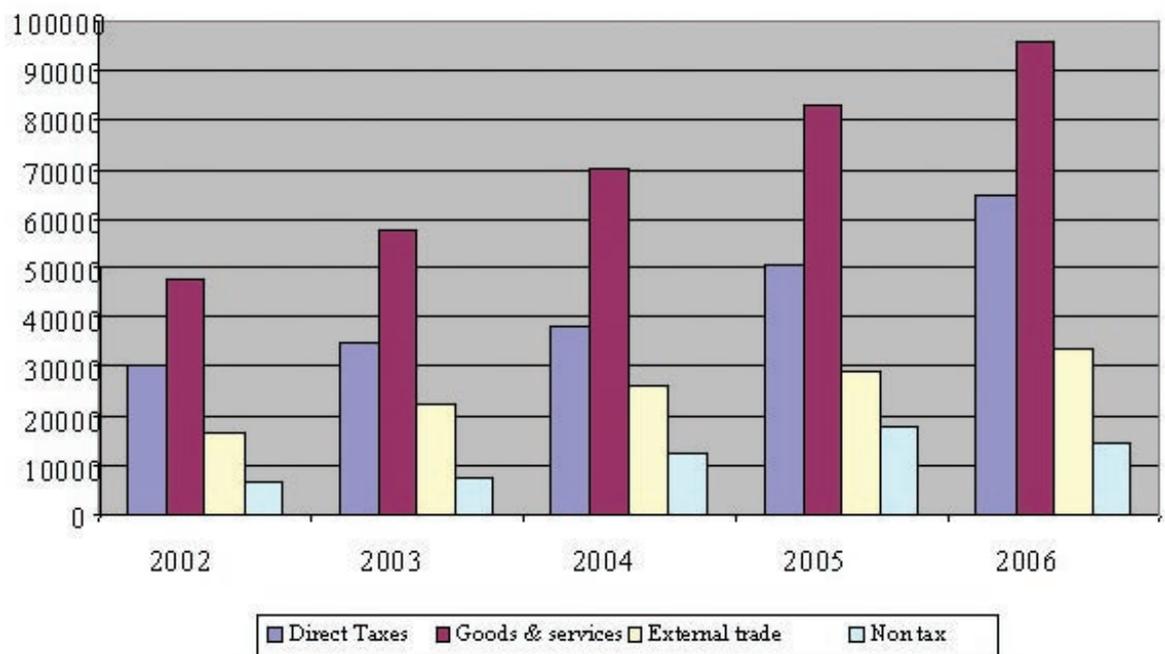
### 8.1. Tax Revenues

In 2006, data from RRA show that the collected fiscal and customs receipts reached an amount of 193.6 billions Frw against 188.6 billions projected in the finance law review and 183.6 billions stated in the poverty reduction program. The fiscal revenues consistently increased from a 20.7% in 2005, it went up again by 18% in 2006; this rise was 20.7% in 2005.

In general, internal revenues collection in 2006 followed an economic expansion, especially in the industry and service sectors.

Thus, the direct taxes increased by 27.2%, going from 50.7 to 64.5 billions Frw between 2005 and 2006. The taxes on goods and services went up from 82.9 to 95.5 billions of Frw with an increase of 15%; whereas taxes on external trade increased only by 4%.

*Graph 8-1: Revenue by category, 2002 – 2006*



The excess in relation to the 2006 revenues forecasts is attributable, essentially to the good performance recorded with the PAYE (Pay As You Earn) collection. This is a result of the intensive audit of payrolls and the expansion of the tax base tended to include more taxpayers, in particular those working with International Organizations and the reinforcement to recover taxpayers' arrears as well improving VAT collection.

On a total of 102.9 billions collected in 2006, an amount of 35.7 billions Frw come from the PAYE and an amount of 67.2 billions of Frw come from the VAT, meaning that these two types of taxes represent 54% of the internal revenue collection in 2006, whereas they contributed 83.2 billions (51% of the total) of 162.6 billions collected in 2005.

The performance of the taxes on goods and services is essentially a result of

good performance of the value-added tax (VAT), with the injection of the liquidity in the economy through the government spending on one hand and through credit to the private sector on the other hand, that have increased the demand of taxable goods, and resulted in the increase of tax revenues.

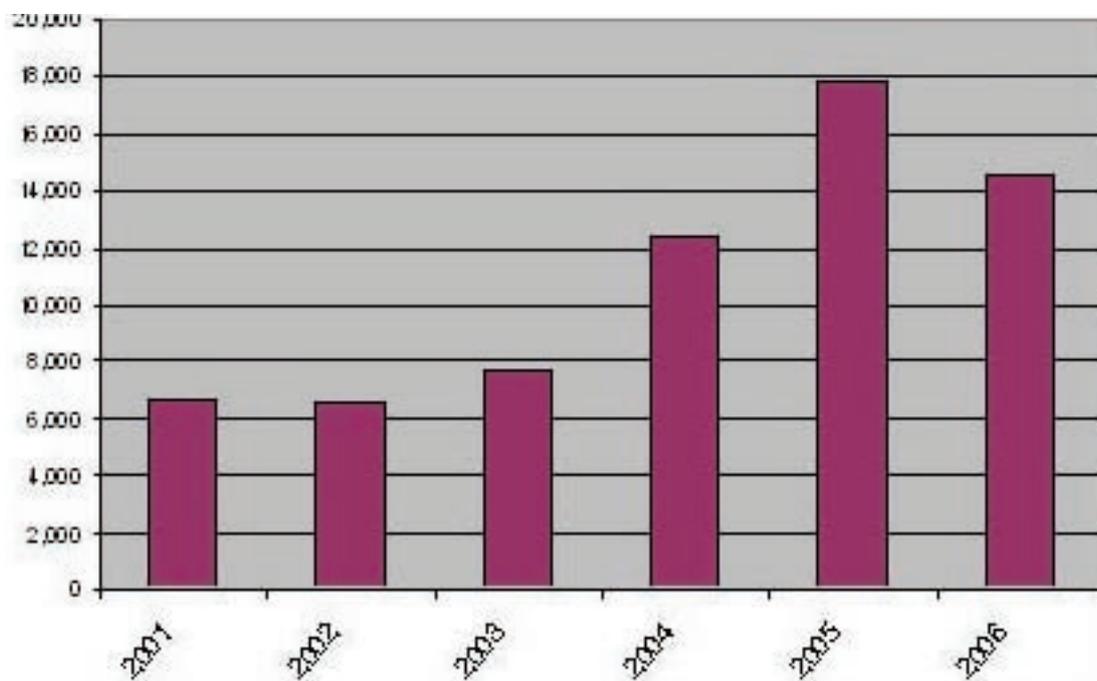
Though the internal tax collection performed well in 2006, it should be noted that the stagnation of the external trade revenues is explained by the increase of the imports of equipment goods which are tax exempted, the importance of import from the COMESA subregion, the appreciation of the FRW of about 4% against the American dollar, and the abolition of the MAGERWA tax.

It should also be noted that the increase of internal revenues is a result of the recent reforms initiated by the government, those are the PAYE system, the public service reform and the expansion of the PAYE on compensation of employees in kind.

## 8.2. Non tax revenues

Compared to the year 2005, the non tax revenues collected during the year 2006 decreased by 17%, dropping down from 17.7 to 14.6 billions of Frw. However, the collected tax was 2.8 billions of Frw higher than the forecasts.

*Graph 8-2: Evolution of non tax revenues in million rwf, 2001 - 2006*

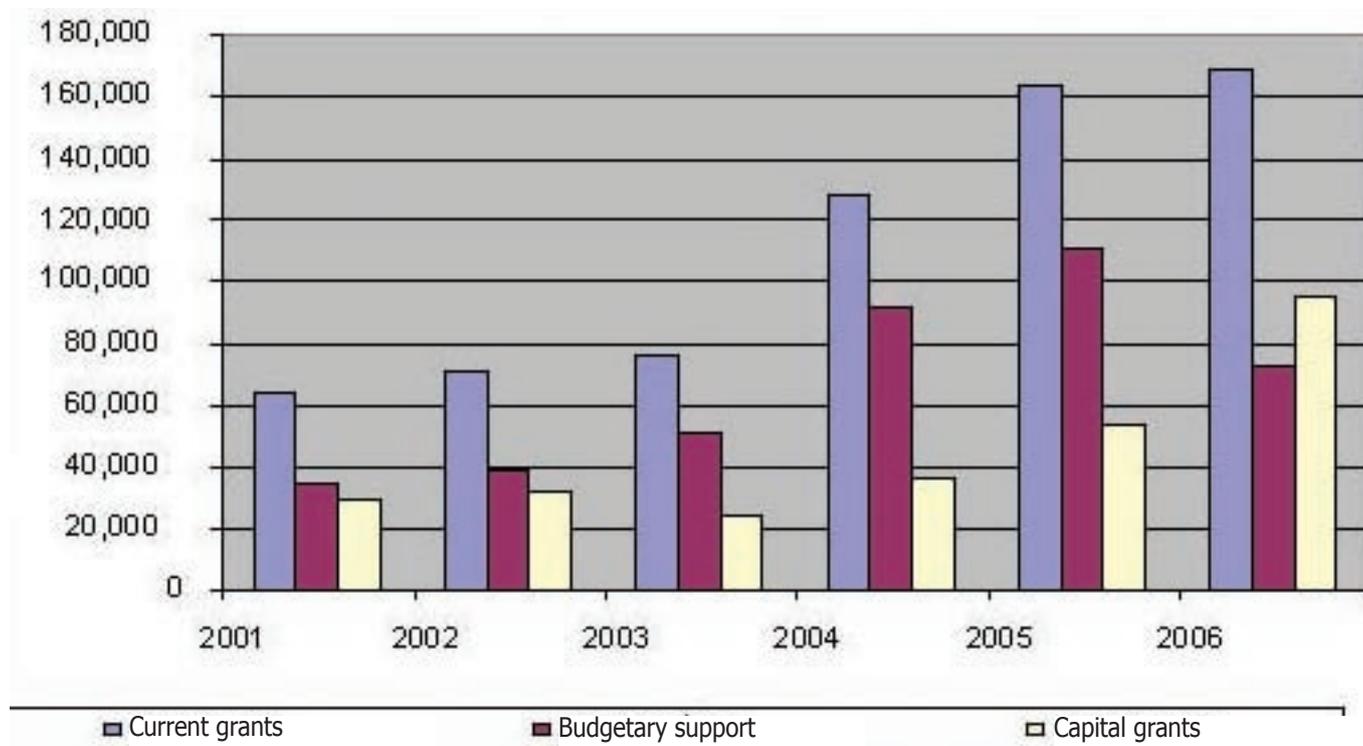


The performance of the non tax revenues resulted from the recovery of the sales of official vehicles, the sale on the strategic stock of fuel oil as well as the payment of the balance resulted from the sale of the land belonging to the National police.

## 8.3. Current grants and external disbursement

During the year 2006, in order to finance the recurrent budget, the country received external grants equivalent to 169.1 billions Frw. The current grants rose to 73.2 billions of Frw while the capital grants rose to 95.9 billions frw. The share of the grants in financing the state budget increased in 2006.

Graph 8-3: Evolution of grants in million rwf, 2001 – 2006.



In percentage of the GDP, the grants disbursed by external donors represented 44.8% of the total revenues against 47.7% in 2005. In 2006, the external grants have been disbursed mainly by the United Kingdom, the European Union as well as the debt relief that has been supported by the IDA/World Bank, the ADB and the EIB.

#### 8.4. Current lending

During the year 2006, the government of Rwanda got a loan of 4.3 billions Rwfs from the ADB as well as a loan amounting to 3.8 billions from the World Bank for the demobilization program.

#### 8.5. Capital lending

Disbursed loan for financing development projects in 2006 was estimated to be 29.5 billions of Frw against 29.5 billions of Frw stated in the budget, i.e. an execution rate of 100%. In addition to these loan disbursements, an amount of 42.4 billions has been paid out by the International Monetary Fund (IMF) under the MDRI in the move to cancel the external debt of Rwanda.

#### 8.6. Public spending

At the end the year 2006, total authorized spending amounted to 316.5 billions of Frw against a budget of 313.2 billions Frw, that is an execution rate of 102%; the authorized total spending on recurrent budget reached 281.5 billions Frw against 283.5 billions of Frw, that is an execution of 99.3%, while the spending on development budget, financed by the national resources, totaled an amount of 34.9 billions Frw against 29.6 billions Frw, i.e. an execution of 118%. This overspending is explained by additional spending in the agricultural and water sectors. Current spending comprises wages, goods and services, public debt, transfers, exceptional spending, net lending and arrears which represent

respectively 20%, 22%, 6.7%, 22.1%, 10.6%, 3.7% and 2.7% of the total authorized spending in 2006.

### **8.6.1. Capital spending**

The capital spending at the end of the year 2006 indicates satisfactory results compared to the year 2005. Data from the projects showing the performance of the public investments indicate that the capital spending paid in 2006 totaled an amount of 126.1 billions Frws against 112.6 Frws billions projected, which means an execution rate of 112%. This is a very considerable improvement if it's compared to the years previous to 2006.

This improvement is essentially attributable to the regular projects follow-up by CEPEX. Also, the disbursements of the donors for the year 2006 didn't take into consideration the macroeconomic framework or the finance law, but rather their projected figures stated in their Action Plans and Annual Budgets (APAB). The capital spending are distributed in spending on national resources and spending of external resources (loans and grants) for an amount of 34.9 billions Frw and 91.2 billions Frw respectively. The spending of the Common Development Fund (CDF) reached an amount of 4.2 billions Frw in 2006 and the remaining of the capital spending on national resources is constituted by the Counterpart Funds for an amount of 7.3 billions Frw and other capital spending that finance other investment activities of the country such as technical assistance, constructions, acquisition of equipments, road infrastructure, etc.

### ***Net Lending***

Net lending is essentially constituted of loans in the public enterprises. This net lending went up from 4.4 to 9.6 billions rwfs between 2005 and 2006, i.e. a rise of 118.2%. The project of Methane Gas in Lake Kivu has notably contributed to this increase.

### **8.6.2. Public Debt**

During the year 2006, the public debt continued to achieve considerable progress. Indeed, the expenses related to the payment of public debt reached 21.4 billions Frw against 29.2 billions Frw projected in the reviewed finance law. They are composed of interests and commissions for an amount of 11.4 billions Frw against 15.9 billions Frw projected and an installement of 10 billions Frw against 30.6 billions projected. It's worth noting that the payment of the remaining external debt has been supported by the debt relief service of the HIPC. The situation of the public debt is detailed in the chapter on Public debt.

### **8.6.3. Arrears payment**

The arrears of goods and services paid during the year 2006 totaled an amount of 8.5 billions Frw against 7.0 billion rwf projected in the finance law, which is an execution rate of 121%. These arrears cover expenses of the year 2005 that could not be paid by 31/12/2005 and other arrears previous to the year 2006, comprising arrears that occurred before the year 1994 as well as the arrears of goods and services accumulated during the years previous to 2006.

#### 8.6.4. Allocation to priority programs

During the fiscal year 2006, the government continued to support six important sectors identified in the 2002 PRSP: Rural Development and Agricultural Transformation, Human Development - Education and Health-, Economic Infrastructures, Good Governance Development of the Private Sector, Strengthening Institutional Capacity and Human Resources. To this end, these sectors have been financed up to 150.7 billions Frw in 2006 against a budgeted amount of 144.1 billions Frw, which is an execution rate of 104%, an increase from the year 2005.

#### **Annex VIII : Table 8.1.**

Table 8.1: Consolidated Budget in millions of Frw

## 9. PUBLIC DEBT

The public debt remains dominated by the external debt which represents 63.2% against 36.8% for the domestic debt, at the end of 2006. This fall of the percentage of the external debt is due to the cancellation of a part of the outstanding debt by some multilateral donors.

### 9.1. External Public debt of Rwanda

Since the budget in developing countries, Rwanda inclusive, is structurally in deficit and the need of Government to developing basic infrastructures to promote the development of the private sector, there is a need to borrow additional money. The conditions of external borrowing (duration of payment, delay before the first payment, interest rate) being favorable than the domestic loan and in addition, domestic borrowing are inadequate to satisfy the needs, government draws more resources from external than domestic borrowing.

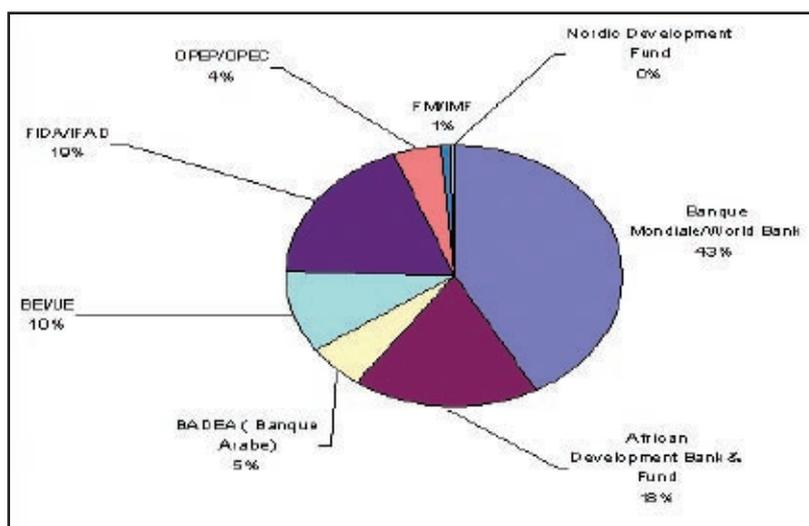
At the time of the G8 summit in June 2005, member countries decided to put in place a fund aimed at canceling the multilateral debt in what they called the Multilateral Debt Relief Initiative (MDRI). This fund should complement the debt relief granted by the HIPC initiative and should only be granted to countries that reached their achievement point. The external debt of Rwanda is composed of the multilateral and the bilateral debt. This latter is also subdivided into debt club of Paris and non club of Paris.

#### 9.1.1. Nominal value of the debt:

At the end of the year 2006, the nominal external debt rose to 477.6 millions US dollars and can be divided in three categories of creditors:

- ⊗ The multilateral debt remains the most dominant with an outstanding amount of 391.9 million American dollars, or 82% of the total debt. The main creditors are: the IDA (43% of the multilateral debt), the IFAD (19% of the multilateral debt) and the African Development Bank group (18%). We can also add that Rwanda has a new multilateral creditor who is the Nordic development Funds.

*Graph 9-1: Distribution of the main contributors to multilateral debt for Rwanda in 2006, in %*



- ⊙ The bilateral debt of the club of Paris represents an amount of 4.4 millions USD or 0.92% of the external debt. The debt vis-à-vis France deserves a particular treatment as a debt cancellation fund.
- ⊙ The debt of non club of Paris rises to 81.3 millions dollars, which represents over 17% of the total outstanding debt. By order of importance, it is constituted respectively by the following three major creditors: the Kuwait Fund for economic development, the Saudi Fund for Development and People's Republic of China.

*Table 9-1: Summary of the total nominal external debt at the end 2006*

<b>CREDITORS</b>	<b>in millions of USD</b>
Multilateral	391,9
IDA	164,6
FIDA	73,6
ADB/ADG group	69.5
Others	84.2
Bilateral	90
Club of Paris	4,4
Non-Club of Paris	81,3
<b>Total</b>	<b>477,7</b>

Source : Ministry of Finance and Economic Planning

The external debt that amounted to 1,574.6 millions of US dollars in 2005, fell to 477.7 millions US dollars in 2006, or a reduction of 69,7%. This fall can be explained by the cancellation of the stock of the multilateral debt creditors, namely IDA, IMF and ADF.

The nominal external debt represents 42.2% of the GDP in 2006 against 74.4% in 2005. This fall can always be explained by the same reasons as those stated in the previous paragraph.

By considering the population of Rwanda, it should be noted that the external debt per capita is estimated to be 83 US dollars in 2006 against 186.5 US dollars in 2005.

If we consider the period 2003-2006, we realize that the external debt in proportion of the Gross domestic product registered a downward trend until 2006, the fall being 95.6% and a percentage change of more than 78%; while debt service recorded a significant variation from one year to the next, an increase in 2003 and 2005 with a fall in 2004 and 2006, graphically this variation takes the shape of the letter M.

Concerning the distribution of the outstanding external debt by sector of activity in 2006, shows that "others sectors" come in first position, followed respectively by the services and the agricultural sector.

While the electricity, water and gas sector comes in last position, it remains however the priority sector to stimulate the economy. This is explained by the fact that these are the previous loans that are in repayment and that there is non new loans disbursed that could increase outstanding debt.

During the period 2003-2005, nearly all sectors of activity recorded a rise of their outstanding except the sector of electricity, water and Gas that recorded a decrease in 2005; whereas in 2006 the outstanding amount of all sectors fell, except the industry that registered rise. For the year 2006, the subsectors that are classified in "others" have an outstanding amount of 121.2 millions US dollars, the service sector having 103.2 millions US dollars while the sector of electricity, water and Gas registered only 22.4 millions US dollars.

### 9.1.2. HIPC Initiative in Rwanda

Since the eligibility of Rwanda for the HIPC initiative in 2000, the country began to benefit so much from debt relief from the bilateral and multilateral creditors in 2001. For the multilateral, every creditor had his way of debt relief, the IDA and the ADB/ADF granted a reduction of the debt service of 88.4% and 80% respectively.

The IFAD and EIB/EC support 100% of the debt service until the projected total amount of relief is reached. This is how for example the EIB/EC debt service will be supported by the HIPC relief until the extinction of all loans except one.

The BADEA adjusted is debt rescheduling and a plan of payment for the new loans is established; while the OPEC grants a new loan that permits to have the expected relief in actualized value. For the creditors out of the club of Paris for which we didn't get the same terms than those of the club of Paris, the country accumulated some arrears. It is the case of China, Libya and the United Arab Emirates.

The relief received during the year 2006 by the multilateral creditors who participate in the HIPC initiative is shown in table below:

*Table 9-2: Debt relief by multilateral, 2006*

<b>CREANCIERS</b>	<b>In millions USD</b>
IDA	11.96
ADB/IFAD group	6.85
BEI /CEE	2.28
FIDA	0.87
<b>Total</b>	<b>21.96</b>

Source : Ministry of Finance and Economic Planning

uring the period 2003-2005, there was an annual increase of the debt relief by multilateral creditors except that of the European Union which first rose and then decreased.

### 9.1.3. The Multilateral Debt Relief Initiative (MDRI)

This initiative was launched in July 2005 at the time of the G8 summit in Gleneagles, Scotland, that recommended to cancel the totality of the debt due to three multilateral institutions (IDA, IMF and ADF) for countries that reached or are going to reach their point of achievement as defined by the HIPC initiative.

The debt relief within the MDRI is destined to assist eligible countries to advance in the realization of the Millennium Development Goals (MDG) of the United Nations, with the target of reducing poverty by half by the year 2015. In March 2006, the funding donors agreed on a financial mechanism for MDRI, based on the provision by donors of supplementary resources in favor of poverty reduction. These financings will permit to compensate the repayments of cancelled loans.

The Board of directors of the IMF modified the proposition of the G-8 to comply with the specific requirement of the IMF, that resources of the institution are used in an equitable way for all member countries, in accordance with the principle of uniformity. Thus, it has been decided that all member countries (HIPC or not) with an annual per capita income below or equal to 380 US would be eligible to the debt relief within the MDRI framework, financed on the IMF resources. Other HIPC with an annual per capita income above this level would be admissible in MDRI relief financed on resources from an existing common fund managed by the IMF, but composed initially by the contributions of some countries. The Board of directors approved the implementation of the MDRI in November 2005.

The World Bank announced in June 29, 2006 the application modalities of the MDRI which were effective in July 01, 2006.

In November 2005, the Board of Directors of the African Development Bank Group approved the application modalities of the MDRI which became effective since January 01, 2006. For the case of Rwanda, the IMF cancelled its outstanding credits at the end of 2004 and the cancellation became effective in January 2006. The IDA cancelled its own at the end of 2003 and the cancellation was effective in July 2006 while the ADF preceded the same with the end of 2004 with the cancellation taking effect in January 2007 but with a retroactive effect in January 2006.

*Table 9-3: Debt cancellation for the year 2006 by the multilateral in the MDRI*

<b>CREANCIERS</b>	<b>In millions USD</b>
IDA	815.72
ADB/IFAD	60.54
IMF	79.28
<b>Total</b>	<b>1155.54</b>

Source : Ministry of Finance and Economic Planning

The cancellation of the outstanding debt by multilateral creditors caused a fall of 70.8% of the projected outstanding at the end of 2006. This reduction of the debt of Rwanda allows her to have a viable debt, that is to say a debt that doesn't weigh on the treasury of the country in the payment of the debt service.

#### **9.1.4. Disbursements**

In 2006, there were some payments on new loans coming from the bilateral since the end of the 1994 war and genocide. For the year 2006, the weight of each creditor in the total disbursed amount is a function of the weight of that creditor in the total amount of debt. That is why the IDA occupies the first position with 45%, seconded by the ADB group with 32.6% and the IFAD with 7.6%. The total disbursed amount in 2006 is evaluated at 84.5 millions of US dollars, i.e. a reduction of 16% in comparison with the year 2005. The American dollar remains the most used currency for the disbursement. The main reason that can be given to the predominance of the American dollar in the payments is that most loans are contracted either in Special Drawing Rights (SDR), or in Unit of account (UC).

### **9.2. Domestic Public Debt**

#### **9.2.1. Stock**

The stock of the domestic debt of Rwanda is estimated at 302.08 Millions of dollars in 2006, having increased by 28.4% from the year 2005. This increase is explained by the use of the treasury bills and appreciation of the Rwandan franc against the American dollar. The structure of this debt remains dominated by the debt towards the National Social Security Fund with an amount of 122 millions US dollars and the National Bank of Rwanda with 78 millions US dollars; representing respectively 40.3% and 25.8% of the total stock of the domestic debt.

#### **9.2.2. Sector of activity**

As for the distribution domestic creditors according to activity, shows that non banking sector comes in first position with 47.9%, followed of the banking sector with 26.3% and the central bank with 25.8%. The predominance of the non banking sector is explained by its importance in the annual purchase of the treasury bills and the debt towards the National Social Security Fund of Rwanda which is classified in the non banking sector.

As far as the domestic debt in percentage of the GDP represents 12.7% in 2006 while it was 9% in 2005. This rise is due to the rise of the domestic debt which is not proportional to increase of the nominal GDP.

#### **9.2.3. Types of Instruments**

The distribution of the domestic debt by category of instruments shows that the consolidated debt of the NBR remains dominant with 28%, followed by development and treasury bonds with 24%, followed by instruments that are classified in others (social contributions, contributions to organizations, embassies arrears, etc.) with 22%; the recapitalization comes in last position. The

treasury bonds that are considered here are constituted by the former bonds that fell in arrears with a reimbursement plan and new treasury bonds transmitted every Thursday with a maturity not exceeding one year.

#### **9.2.4. Debt Service**

As the domestic debt service is concerned, arrears are recorded towards the National Social Security Fund of Rwanda, because a reimbursement was planned but at the end of the year the convention was not yet signed between the government and its creditor. There are some creditors for which we don't have a plan of repayment and their arrears increase annually, it is the case of OCIR - CAFE, ONP and SODEPARAL.

#### **Annex IX : Table 9.1 – 9.5**

Table 9.1: Public debt (in million de US \$)

Table 9.2: Domestic Debt by creditor, 2006(in million de US \$)

Table 9.3: External Debt by creditor, 2006(in million de US \$)

Table 9.4: Debt by activity sector (in million de US \$)

Table 9.5: External Debt (in million de US \$)

## X. EXTERNAL AID

This chapter analyses the external aid in Rwanda for the years 2004, 2005 and 2006. This was directed to programs and projects recently closed, ongoing or programmed, allocated according to sectors of interventions and donors. Note that assistance from NGOs is not included since some of their funds come from the bilateral and multilateral donors included in this dataset.

In 2006, total ODA (Official Development Assistance) disbursed to Rwanda was 429.8 million US dollars, whereas it was 543.6 millions US dollars in 2005. This estimate is based on data collected by the Ministry of Finance and Economic Planning.

### 10.1. Source of external assistance

In 2006, 57.8 % of ODA disbursed to Rwanda came from bilateral donors like the UK (23%) followed by the USA (21%). Multilateral donors are represented by the consortia (The World Bank Group, the European Commission, the African Development Bank, UN agencies and the Global fund).

### 10.2. External aid by Sector

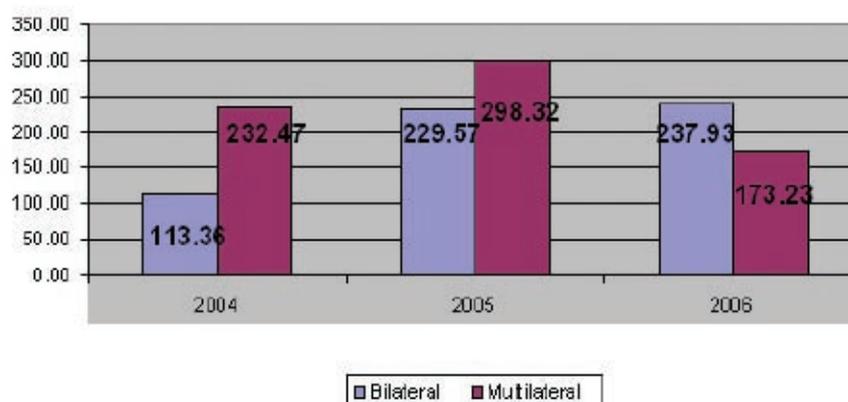
The majority of aid disbursed in 2006 was not earmarked for a particular sector, and this represents 28.8% of total aid labeled as "All Sectors" in the form of general budget support.

In the years 2004, 2005 and 2006, four sectors are analyzed. These are the Governance and sovereignty, production and environment, Infrastructure, and social and human resource development.

### 10.3. Evolution of aid disbursed

As shown in the following graph, the majority of aid disbursed in 2005 was higher than that of 2006 and 2004. In 2004 and 2005 multilateral donors such as World Bank, European Commission, African development Bank, etc. are the first to contribute to the Official Development Assistance to Rwanda whereas bilateral donors contributed more in 2006.

*Graph 10-1: Evolution of aid disbursed (Million USD)*



*Annexe X : Tableau 10.1 – 10.2.*

Tableau 10.1: Aide extérieure par secteur

Table 10.2: Aide extérieure par bailleur (en millions de US\$)

# 11. EMPLOYMENT

## 11.1 Introduction

The year 2006 marked a major land mark in tracking changes in the labor market in Rwanda. The Integrated Household Living Conditions Survey (EICV) of the NISR measure changes in the labor market between EICV 1 and EICV 2 conducted in 2000/01 and 2005/06 respectively. It also linked employment with other social and economic characteristics of the population like education, living conditions etc. This chapter highlights labor force characteristics as of 2006 and will especially emphasize the changes that took place between 2001 and 2006.

## 11.2 Economic activity rates

Activity rates for adults have fallen from 85.8% in 2001 to 83.1% in 2006 as indicated in table 11-1. The main reason for the fall in rates is that a higher proportion of young adults are in full time education.

**Table 11-1** *Provincial usual economic activity rates (% of people aged 15 and over)*

	EICV1 :Economically active			EICV2 : Economically active		
	Males	Females	All	Males	Females	All
City of Kigali	78.8	71.5	74.8	79.9	75.1	77.4
Southern Province	83.4	87.8	85.8	80.7	84.3	82.7
Western Province	85.3	90.6	88.3	80.8	86.2	83.7
Northern Province	86.8	90.2	88.7	81.3	86.5	84.1
Eastern Province	83.8	87.8	86	83.4	85.9	84.7
<b>National</b>	<b>84.1</b>	<b>87.2</b>	<b>85.8</b>	<b>81.3</b>	<b>84.6</b>	<b>83.1</b>

Source: EICV1 and EICV2 data: persons aged 15 years and above

Female activity rates are little higher than those for males. Many people work beyond 65 years of age, and there was little change between the surveys in the proportion of those economically active in this group, with less than a quarter of all persons aged over 65 years having stopped work.

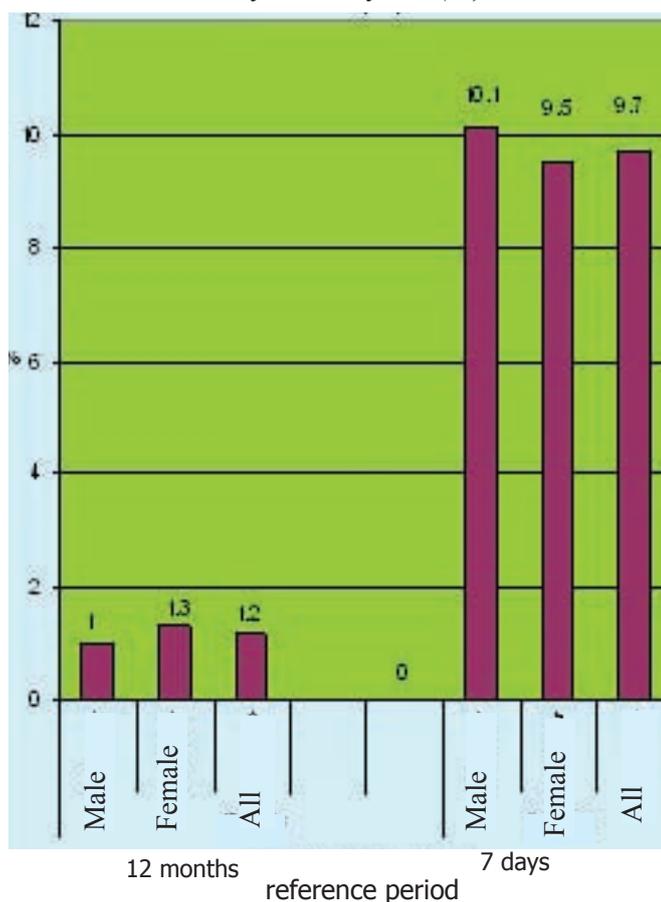
**Table 11-2** *Usual economic activity rates by age group (%)*

Age Group	Working	Unemp	Student	Inactive	All	Working	Unemp	Student	Inactive	All
7 - 10	2.4	0.1	72.1	25.4	100	1.3				
11 - 14	16.2	0.3	72	11.5	100	9.7	0.1	82.9	15.8	100
15 - 20	67.7	1.5	24.4	6.4	100	55.1	0.3	85	4.9	100
21 - 30	90	2.5	4.2	3.3	100	88.8	1.3	40.3	3.4	100
31 - 40	95.4	0.9	0.1	3.5	100	95.8	2.5	6.1	2.6	100
41 - 50	95.4	0.8		3.8	100	95.7	1.5	0.4	2.4	100
51 - 65	93.1	0.4		6.5	100	92.5	0.9	0	3.4	100
66 et +	74.9	0.4		24.7	100	76	1		6.5	100
National	61.9	1	27.6	9.4	100	60.8		0.5	23.5	100
							1.2	32	6	100

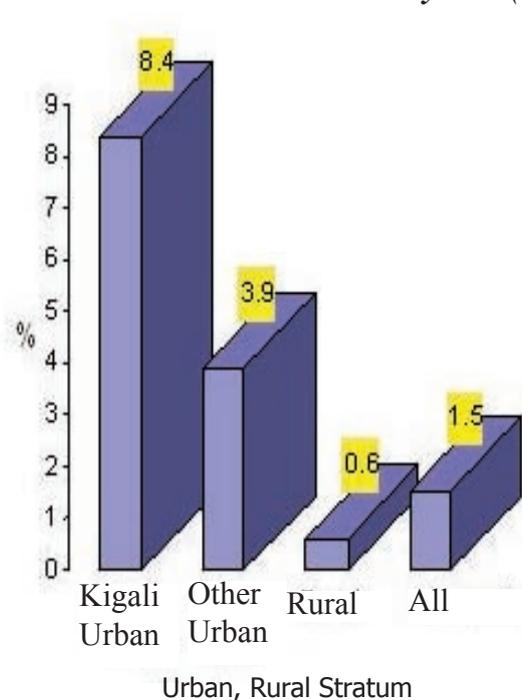
Source: EICV1 and EICV2 data: household population aged 7 years and above

Kigali city has the highest unemployment rate of 8.4% followed by other urban centers (3.92%) and finally rural areas (0.6%).

**Graphic 11-1**  
*Unemployment in short reference period by sex 7+ years(%)*



**Graphic 11-2**  
*Graph 11-2: Unemployment by rural urban distribution 15+ years (%)*



### 11.3 Economic activity and occupational groups

The majority of the workers live in rural areas according to EICV-II: 3.7 million workers live in rural areas, where 86.5% work in agriculture, forestry or fishing as their main jobs. In urban areas outside Kigali a majority are also employed in agriculture, whereas as only 13% are employed in trade and service industries.

Kigali has around half of its workforce employed in the trade and service industries, a further 12% work in government and administration.

Construction and transport industries employ 6.4% of Kigali workers, and manufacturing comprises just 5.5% of the main employment of adults.

*Table 11-3. Industrial activity of adult workers by urban and rural (%)*

<b>Industry</b>	<b>Kigali urban</b>	<b>Other urban</b>	<b>Rural</b>	<b>All</b>
Agriculture, fishing, forestry	14.2	55	86.5	78.8
Mining & quarrying	0.4	0.1	0.5	0.4
Manufacturing	5.5	2.1	1.5	1.8
Utilities	0.4	0.3	0	0.1
Construction	7.2	3.2	0.9	1.5
Trade	23.1	12.9	4.9	6.8
Transport & communications	6.4	3.2	0.7	1.3
Financial services	2.3	0.9	0.1	0.3
Gouvernement	11.9	7.9	2.1	3.2
Recreation & tourism	0.3	0.6	0.1	0.2
Other services	27.1	12.7	2	4.6
Inadequately described	1.2	1	0.8	0.8
All	100	100	100	100

Source: EICV2 data: usual job of adults 15 years and over years, and in employment.

Eighty percent of adult workers are employed in agricultural occupations, rising to 87% in rural areas. In other urban areas the skilled service sector is the largest occupational group, these jobs include cooks, waiters, cleaners, security and personal care services. In Kigali city, commercial jobs represent 19%. Semi-skilled operatives include construction workers and those working in manufacturing represent 17% of workers in Kigali and 7% in other urban areas.

*Table 11-4. Occupational group by urban and rural*

<b>Occupation</b>	<b>Ville de Kigali</b>	<b>Autres Villes</b>	<b>Rural</b>	<b>Tous</b>
Professionals	7.4	4.4	1.3	2
Senior Officials and Managers	0.9	0.1	0	0.1
Office Clerks	4.2	1.5	0.2	0.6
Commercial and Sales	19.1	11.7	4.1	5.8
Skilled Service Sector	31.3	16.6	2.5	5.7
Agricultural & Fishery Workers	14.7	55.9	87.2	79.5
Semi-Skilled Operatives	16.8	7.1	3.6	4.8
Drivers and Machine Operators	4	1.2	0.2	0.5
Unskilled Labourers	1.6	1.6	0.9	1
ALL	100	100	100	100

Source: EICV2 data: usual job of adults 15 years and over years, and in employment

## 11.4 Gender and economic activity

Nearly 86% of all women work in agricultural occupations compared to 71% of men. In Kigali the largest proportions of women work in the service sector and commercial occupations, with over one third working in service sector jobs. This compares with a quarter of men who work in Kigali in service occupations and another quarter who are semi-skilled operatives

*Tableau 11-5 : Genre et activité économique*

Occupation	Ville de Kigali		Autres Villes		Rural		Tous	
	H	F	H	F	H	F	H	F
Professionals	8.4	6.3	4.7	4.2	1.8	0.8	2.6	1.4
Senior Officials and Managers	1.2	0.5	0	0.2	0	0	0.1	0
Office Clerks	3.1	5.4	1.3	1.6	0.3	0.1	0.6	0.5
Commercial and Sales	16.1	22.6	10	13	5	3.4	6.4	5.4
Skilled Service Sector	26.9	36.3	17.6	15.7	4.3	1	7.3	4.3
Agricultural & Fishery Workers	9	21.2	47.8	62.6	79.9	93	71.4	86.2
Drivers and Machine Operators	7.6	2.6	0.4	1.2				
Semi-Skilled Operatives	25.3	7	12.5	2.7	6.4	1.4	8.4	1.9
Unskilled Labourers	2.3	0.8	3.4	0.1	1.8	0.2	2	0.2
ALL	100	100	100	100	100	100	100	100

Source: EICV2 data: usual job of adults 15 years and over years, and in employment.

## 11.5 Child labor

Three quarters of all children under 15 years who worked did so in agriculture, whereas some 19% worked in the service sector, with girls slightly more likely to do so than boys, and boys slightly more likely to be in commerce.

*Table 11-6 : Economic activity of child workers %*

Activité Economique	Hommes	Femmes	Tous
Agriculture, fishing, forestry	79.9	72.7	76.5
Mining & quarrying	0.6		0.3
Manufacturing	1.3	0.5	0.9
Trade	3.9	1.5	2.7
Transport & communications	0.4	0.6	0.5
Other services	13.3	24.3	18.5
Inadequately described	0.6	0.4	0.5
<b>All 7 - 14 year old workers</b>	<b>100</b>	<b>100</b>	<b>100</b>

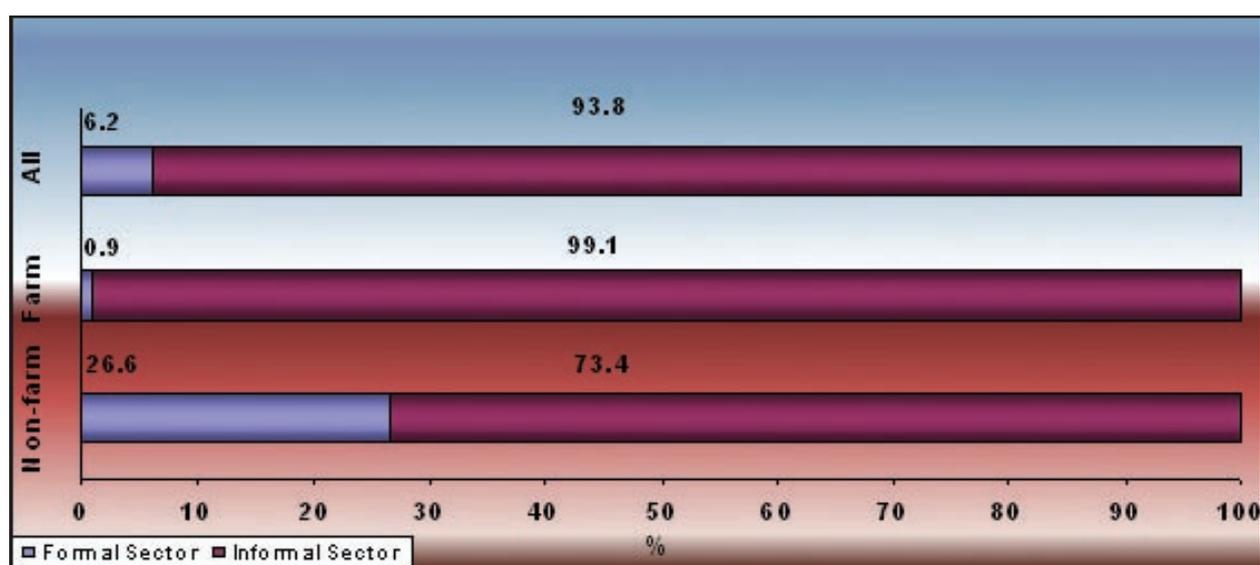
Source: EICV2 data: household population aged 7 to 14 years

## 11.6 Formal and informal sector.

The formal sector is a relatively small component of the labor market. Formal sector employment is estimated as 271,000 persons aged 15 years and over represents 6% of all working adults.

Considering non farm employment, about only 27% are in the formal sector and also only 27.5% of paid employment is formal. The remainder is in the informal sector, which comprises over 4.1 million adults. The definition of the informal sector includes those working on small family farms.

*Graph 11-3: Employment in the formal and informal sector, in percent*



*Table 11-7 Employment by formal and informal sector (estimated 000's)*

	Non-farm		Farm		All	
	Workers	%	Workers	%	Workers	%
<b>Formal Sector</b>						
Waged non-farm	199,000	22.2	-	-	199,000	4.5
Waged farm	-	-	32,000	0.9	32,000	0.7
Independent non-farm	40,000	4.5	-	-	40,000	0.9
<b>Total formal '000s</b>	<b>239,000</b>	<b>26.6</b>	<b>32,000</b>	<b>0.9</b>	<b>271,000</b>	<b>6.2</b>
<b>Informal Sector</b>						
Waged non-farm	279,000	31.1	-	-	279,000	6.4
Waged farm	-	-	328,000	9.4	328,000	7.5
Independent non-farm	308,000	34.3	-	-	308,000	7
Family non-farm	72,000	8	-	-	72,000	1.6
Subsistence farmers	-	-	3,119,000	89.7	3,119,000	71.3
<b>Total informal '000s</b>	<b>659,000</b>	<b>73.4</b>	<b>3,447,000</b>	<b>99.1</b>	<b>4,106,000</b>	<b>93.8</b>
<b>Total employment '000s</b>	<b>898,000</b>	<b>100</b>	<b>3,479,000</b>	<b>100</b>	<b>4,377,000</b>	<b>100</b>

Source: EICV2 data. All adults aged 15 years and above, in employment

*Table 11-8 : Paid employment in the formal and informal sectors*

	<b>Wage farm</b>	<b>Wage non farm</b>	<b>All</b>
<b>Formal Sector</b>			
Public	1.20%	17.10%	10.30%
Parastatal	2.40%	4.80%	3.80%
Formal private	4.20%	17.30%	11.70%
NGO	1.10%	2.40%	1.80%
% Formal	8.90%	41.50%	27.50%
Total formal sector workers	32,000	199,000	231,000
<b>Informal Sector</b>			
Informal private	67.90%	34.00%	48.60%
Other	23.20%	24.50%	23.90%
% informal	91.10%	58.50%	72.50%
Total informal '000s	328,000	279,000	607,000
<b>Total Paid Employment '000s</b>	<b>360,000</b>	<b>478,000</b>	<b>838,000</b>

Source: EICV2 data: Main usual jobs of adults 15 years and over years, and in salaried or waged employment.

### 11.7 Education and occupation.

Although education levels of the Rwandan population are still low, the impact of education on occupations is significant. The level of education of an individual has considerable influence on whether he or she works in the agricultural sector or otherwise. The completion of primary education (6 or 7 years of primary education), is the point at which workers leave the agricultural sector to move into non-agricultural occupations. Overall almost 80% of all workers are in agriculture, but this rises to 90% for those with no schooling and falls to 3% for those with a university education.

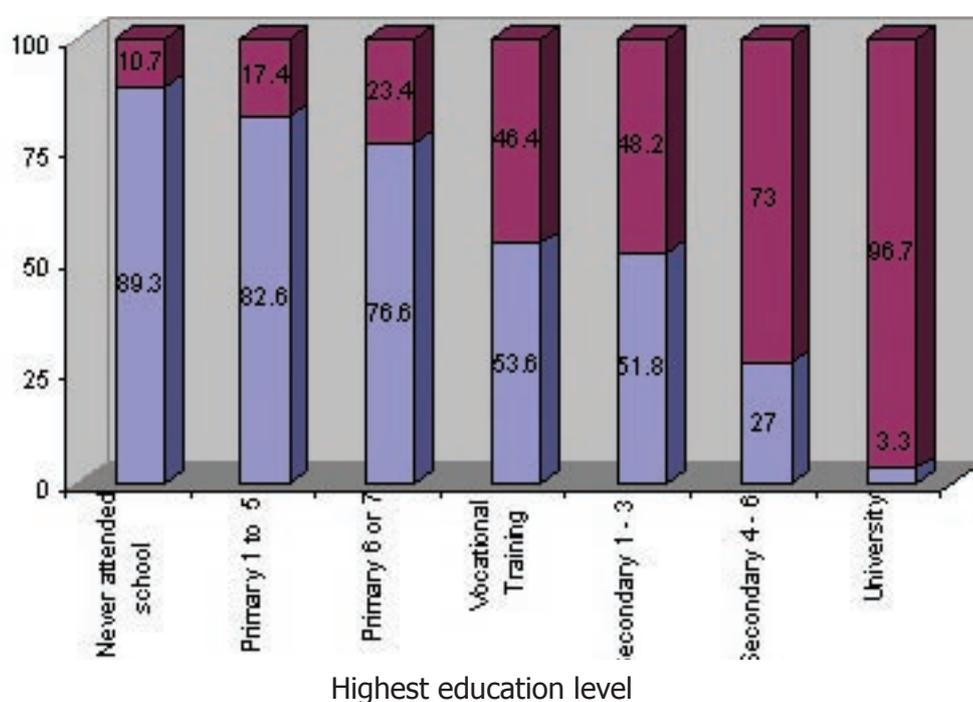
The turning point for moving from agriculture is the completion of primary school and the starting of secondary school or vocational training. The likelihood of a person being employed in agriculture is inversely related to the level of education attained. At the level of primary 6 and 7 three quarters are in agriculture, but this falls to 52% by lower secondary school and 27% for those at upper secondary school level.

*Table 11-9: Participation in agriculture and highest educational level*

<b>Highest level attained</b>	<b>Agriculture</b>	<b>Non-agriculture</b>	<b>All</b>
Never attended school	89.3	10.7	100
Primary 1 to 5	82.6	17.4	100
Primary 6 or 7	76.6	23.4	100
Vocational Training	53.6	46.4	100
Secondaire 1 - 3	51.8	48.2	100
Secondary 4 – 6	27	73	100
University	3.3	96.7	100
All working	79.4	20.6	100

Source: EICV2 All adults 15 years and over years, and in employment

Graph 11-4: % of working in agriculture by highest level of education



### 11.8 Non farm job creation.

Non farm job creation is among the most important pillars of poverty reduction in Rwanda. Between 2001 and 2006 of all new jobs opportunities, the majority 34.7% were in trade followed by services 23.9% and government. The least absorbing sectors are utilities (water, electricity and gas) 0.3% and recreation and tourism 0.6%.

Table 11-10: Industry group of newly taken non-farm jobs (%)

Industry Group	Wage non farm	Independent non-farm	Unpaid non farm worker	All
Agriculture, fishing, forestry	0.7	1.2	1	0.9
Mining & quarrying	2.6	1.4	0.5	2
Manufacturing	5.8	7.9	5.2	6.6
Utilities	0.6			0.3
Construction	11.6	0.3	0.8	6.5
Trade	9.4	68.6	52.3	34.7
Transport & communications	7.3	7.2	1	6.8
Financial services	2.5	0.2	0.6	1.5
Gouvernement	21.7	0.6	7.2	12.7
Recreation & tourism	0.2	1	1.1	0.6
Other services	33.7	8.9	27.3	23.9
Inadequately described	3.8	2.8	2.9	3.4
<b>All</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: EICV2 data: all working aged 15 years and above, excluding independent farmers

Table 11-11. Economic status in short and long reference periods[1] (%), 2005/6

12-month reference period				7-day reference period			
	Male	Female	All		Male	Female	All
Working	58.7	62.7	60.8	Employed	49.1	53.8	51.6
				Work attachment	8.4	7.5	7.9
Unemployed	1	1.3	1.2	Unemployed	1.7	2	1.8
Student	33.8	30.4	32	Student	33.8	30.4	32
Inactive - other	6.5	5.6	6	Inactive	6.6	6	6.2
				No information	0.5	0.3	0.4
<b>All</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>All</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: EICV2 household population aged 7 years and above

Table 11-12 Economic activity rates by stratum – All 7 years and above (%),

	12-month reference period			7-day reference period			
	City of Kigali	Other urban	Rural	City of Kigali	Other urban	Rural	All
Working	54.2	57.3	61.8	47.8	48.7	52.3	51.6
Work attachment				3.1	5.9	8.6	7.9
Unemployed	6.6	3	0.5	9.4	4.5	0.8	1.8
Student	33	33.3	31.8	33	33.3	31.8	32
Inactive - other	6.2	6.4	5.9	6.4	7.4	6.1	6.2
No information	-	-	-	0.4	0.3	0.4	0.4
<b>All</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: EICV2 data: household population aged 7 years and above.

Table 11-13 Economic activity rates for adults by stratum 2005/06 %

	Kigali	Other urban	Rural	All
Working	68.1	75.5	83.6	81.6
Unemployed	8.4	3.9	0.6	1.5
Student	17.6	14.5	11.9	12.6
Inactive	5.9	6	3.9	4.3
<b>All</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: EICV2

## 12. GENDER AND DEVELOPMENT

The concept « gender » implies the equality, guaranteed by the law between men and women; it also ensures the same rights, opportunities and chances to both men and women.

« Gender » by this fact is an approach whose strategies can drive the country toward sustainable development.

Indeed, while taking into account the needs or the interests of both men and women, they participate equally at all level of politics and the economy, which facilitates their active involvement in development and allows, at the same time, men and women to benefit from the fruit of their work.

The Government of Rwanda created favorable conditions to promote gender equality, in the sense of putting in place laws that clearly specify equality between men and women.

To this end, the constitution dated 04/06/2003, stipulates that all Rwandans are free at their birthday and remain so and equal according to their rights and obligations.

‘The discrimination of all nature, based on...., ethnicity, origin, clan, tribe, color, sex..... is prohibited and punished by the law (art. 11) ‘.

Also, the Constitution of the Republic of Rwanda underscores on the equality between men and women with an affirmative action to solve specific problems, such as representing women by 30% at decision making positions.

In addition, the decentralization process, Vision 2020 and the EDPRS, integrated gender aspect as a cross cutting issue like the environment and HIV/AIDS.

Rwanda, like other countries in the world, embarked on the realization of the Millennium Development Goals (MDGs), of which the third objective is “Gender Equality and empower women”.

To ensure good planning and achieve objectives, “analyzing gender” by producing disaggregated statistics by sex in all socio economic areas is necessary.

With the cross cutting nature of gender, indicators contained in this chapter should be disaggregated by sex.

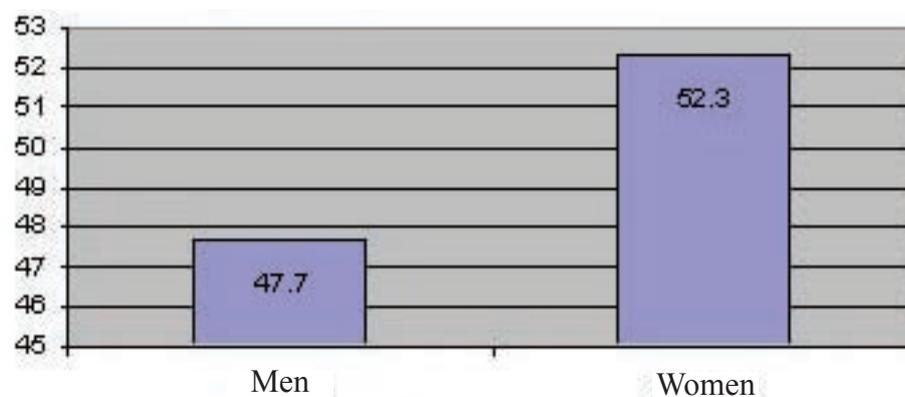
Since this aspect is not taken into consideration in all the chapters of the document, it has been decided to consecrate the gender statistics in a separate chapter.

These indicators cover the demographic characteristics, education, reproductive health, gender violence and the woman’s participation in the development.

## 12.1. Demographic Indicators, 2006

According to the 2002 Census of Population and Housing, the population of Rwanda was 8,128,553 with 3,879,448 of men and 4,249,105 of women, or 47.7 % of men and 52.3% of women. The ratio of men to women is de facto 91.4 men for 100 women.

*Graphique 12. 1: Distribution (in %) of rwandan population by sex, according to 2002 census*



According to projections made by the National Census Service (SNR), the population of Rwanda was estimated at 9,058,392 in 2006, with 4,728,737 women and 4,329,655 men (average hypothesis).

The proportions of both men and women would not have changed so much in 2006; still being around 47 % for men and 53 % for women.

## 12.2. Education, literacy, access to medias

### 12.2.1. Primary education

*Table 12-1: Distribution of pupils in primary school by sex, 2000 – 2006, in percent*

Year	2000-2001	2001-2002	2002-2003	2003-2004	2005	2006
Sex						
Boys	50%	49,7%	49,5%	49,2%	49,1%	48,7%
Girls	50%	50,3%	50,5%	50,8%	50,9%	51,3%

Source: MINEDUC

The education level of woman influences access to health cares, acquisition of good sanitation and nutrition habits, education attainment of other households members, access to bank credits and participation in income generating activities.

*Table 12-2: Net enrolment rate in primary school*

Year/	2003-2004	2005	2006
<b>Sex</b>			
Boys	91.5	92.2	92.7
Girls	94.5	94.7	97.0
Total	93	93.5	94.8

Source: MINEDUC

The overall net enrolment rate increased in general. In 2006, this rate was higher for girls than for boys in primary school, being 97% against 93% respectively.

*Tableau 12-3 : Taux brut de scolarisation à l'école primaire*

Year	2003-2004	2005	2006
<b>Sex</b>			
Boys	130.6	136.7	143.4
Girls	131	137.8	147.2
Total	130.8	137.3	145.3

Source: MINEDUC

The gross enrolment rate increased year by year. In 2006, it remains higher for girls than for boys (147 against 143), meaning that repeating rate is often high for girls than for boys.

*Table 12-4: Number of students in primary school by status of the school by sex, 2006*

Sex	Public	Free subsidized	Private	Total
Boys	309 086	662 093	14 319	985 498
%	<b>49.03</b>	<b>48.69</b>	<b>47.86</b>	<b>48.78</b>
Girls	321 230	697 667	15 597	1 034 493
%	<b>50.96</b>	<b>51.31</b>	<b>52.14</b>	<b>51.22</b>
Total	630 316	1 359 760	29 916	2 019 991

Source: MINEDUC

Whatever the statute of the school, the proportion of girls is nearly equal to the proportion of boys in primary education, slightly higher than that of boys.

Sex discrimination to private primary schools doesn't exist, as shown by the proportion of boys and girls which does not differ that much.

In primary schools, there are more male teachers than female. However, a higher number of female teachers has a appropriate degree (97%) against only 46% of qualified male teachers.

Source: MINEDUC

*Table 12-5: Proportion of qualified teachers in primary school*

Teachers, Total	2006
Male teachers	27.795
Qualified Male teachers	12.640
% Qualified Male teachers	45,5%
Female teachers	15.639
Qualified Female teachers	15.155
% Qualified Female teachers	96,9%

Source: MINEDUC

### 12.2.2. Secondary education

*Table 12-6: Number of students in the lower and higher level secondary school by statute of the school by sex, 2006*

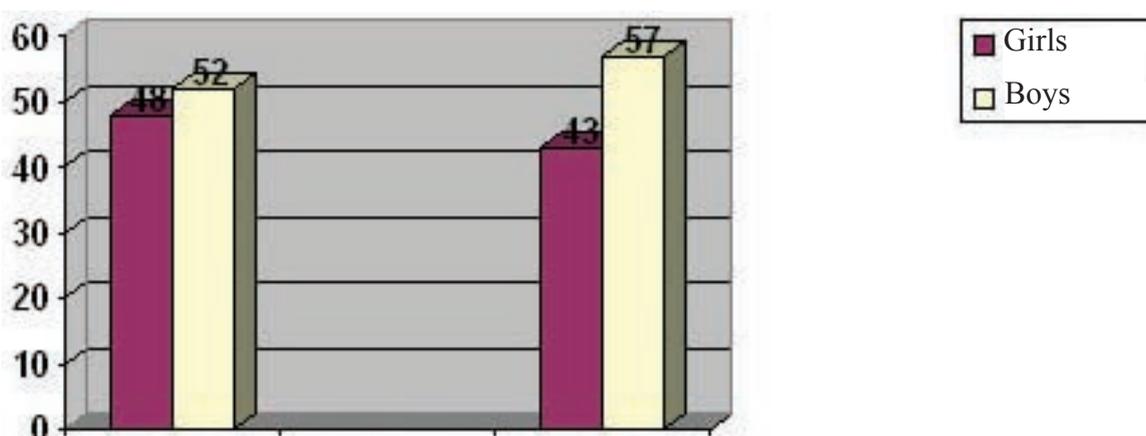
School	Low level					High level secondary				
	B	%	G	%	Total	B	%	G	%	Total
Public	27857	54.8	23007	45.24	50864	9268	64.63	5072	35.37	14340
Free subsidized	26843	51.9	24899	48.13	51742	14016	59.43	9568	40.57	23584
Private	26930	50.2	26763	49.85	53693	20943	46.12	24463	53.88	45406
	<b>81630</b>	<b>52.3</b>	<b>74669</b>	<b>47.74</b>	<b>156299</b>	<b>44227</b>	<b>56.72</b>	<b>39103</b>	<b>43.28</b>	<b>83330</b>

Source: MINEDUC

In contrast to primary level, in general, there are more boys than girls in secondary school (125,857 boys against 113,881 girls).

In the low level secondary school, boys count for 52% against 48% of girls and the gap increases even more in the second level where the proportion of boys reaches 57%.

*Graph 12-3 : Proportion of girls and boys in low and high level secondary school*



Among enrolled pupils in the public schools, boys count for 65% against 35% for girls. In private subsidized schools, 41% are girls against 59% of boys. It means that the number of girls succeeding the national examination at the end of the primary and the lower level of secondary school is lower than that of boys.

For this reason, few of them attend public and private subsidized schools which are less expensive but have high teaching standard if compared to the private schools, thus there is a risk of not going to universities and public high learning institutions.

In private schools, the high secondary school in which young girls attend (54%) are expensive and learning conditions are not generally good.

The situation remained unchanged in the low secondary level if compared to the year 2005. In 2005 the proportion of boys reached 53% against 47% of girls whereas in 2006 the boys represented 57% against 43% of girls.

*Table 12-7: Sex ratio in secondary school, 2006*

School year	Boys	Girls	Sex ratio
2005			
2006	125857	113772	90.39

Source: MINEDUC

In 2006, there are 100 boys for 90 girls. This level remained stable since the school year 2005 where the ratio was 89 girls for 100 boys.

*Table 12-8: Scientific and technical studies in secondary schools*

Scientific paths	Boys	Girls	Sex Ratio
Maths, Physics	5765	3092	<b>53.63</b>
Biochemistry	7177	5288	<b>73.68</b>
General and Auto mechanics.	1321	131	<b>9.92</b>
Electricity	2668	538	<b>20.2</b>
P.W. Construction	2087	345	<b>16.53</b>

Source: MINEDUC

Les élèves filles qui suivent les filières de sciences exactes et techniques sont peu nombreuses alors qu'elles sont des filières qui ouvrent des voies vers des occupations plus rémunératrices.

En effet, le ratio filles/garçons est de 74 en Biochimie, 54 en Maths Physique, 20 en Electricité, 17 en travaux Publics et Construction et 9 en Mécanique Général et Automobile.

*Table 12-9: Proportion of qualified teachers in secondary schools*

TEACHERS	2005	2006
Total, teachers	7,590	7,818
% qualified teachers	51.93	52,2%
Male teachers	5,966	6010
% Qualified male teachers	51.8	55,1%
Female teachers	1,624	1,808
% qualified female teachers	32.32	42,7%

Source: MINEDUC

In secondary education, male teachers outnumber female teachers. Male teachers count for 77% against 23% of females.

Also, it is noted that men are most often qualified than women in secondary level, with a proportion of 43% for qualified female teachers against 55% of qualified male teachers.

### *12.2.3. Tertiary education*

The difference between men and women in university level is very important. Of the 37,159 students enrolled in different high learning institutions, 21,648 are male against 15,465 female, about 58% for men and 42% for women.

This gap is especially large in public higher institutions (NUR, KIST, ISAE-BU-SOGO and KIE) where the proportion of men reaches 70%, meaning that the transition from secondary school to higher learning institutions is in favor of men, who succeed more in the national examination.

This inequality could undermine the integration of women in decision making institutions and high responsibility positions.

*Table 12-10: Number of students by sex, by statute of higher institution, 2006*

<b>Statute of the school</b>	<b>Male</b>	<b>Female</b>	<b>TOTAL</b>
PUBLIC	11331	4850	16193
%	69.97	29.95	100
PRIVATE	10351	10615	20966
%	49.37	50.63	100
<b>TOTAL</b>	<b>21648</b>	<b>15464</b>	
%	58.26	41.62	100

Source: MINEDUC

The situation is different in some private higher learning institutions where the proportion of female students is nearly equal to that of male students (49% of the men against 51% of the women).

*Table 12-11: Student enrolment in Rwanda tertiary education, by major course, 2006*

<b>Study area</b>	<b>Female</b>	<b>Male</b>	<b>Total</b>	<b>% Female</b>	<b>% Male</b>	<b>% Total</b>
Economic Sciences and Management	5429	5053	10482	15.4	14.3	29.8
<b>Sciences et Technologies</b>	<b>2859</b>	<b>4204</b>	<b>7063</b>	<b>8.1</b>	<b>11.9</b>	<b>20.1</b>
Law	1834	2085	3919	5.2	5.9	11.1
<b>Education</b>	<b>1832</b>	<b>1844</b>	<b>3676</b>	<b>5.2</b>	<b>5.2</b>	<b>10.4</b>
Political and Administrative Science	690	997	1687	1.9	2.8	4.8
Agriculture and Livestock	910	448	1358	2.5	1.2	3.8
<b>Nursing</b>	<b>556</b>	<b>705</b>	<b>1261</b>	<b>1.5</b>	<b>2.0</b>	<b>3.5</b>
Languages	348	470	818	0.9	1.3	1.5
Medicine	89	490	559	0.2	1.3	2.3
<b>Journalism and Communication</b>	<b>136</b>	<b>227</b>	<b>363</b>	<b>0.3</b>	<b>0.6</b>	<b>1.0</b>
Theology	11	292	303	0.03	0.8	0.8
Public health & Nutrition	24	43	67	0.06	0.1	0.2
<b>TOTAL</b>	<b>17043</b>	<b>18079</b>	<b>35122</b>	<b>48.5</b>	<b>51.4</b>	<b>100</b>

Source : Women and tertiary education in Rwanda: Profile and Competences, MIJEPROF Study, 2006.

Except Economics and Management, Education, Agriculture and livestock where the proportions of the women are equal or slightly above those of the men, for the rest, the proportions of the men are more significant than those of women, with the highest gap of 4 points observed in Science and technology.

### **12.3.1. Literacy**

In Rwanda, the second Household Living Conditions Surveys (EICV-II, 2005/06) shows that men aged 15 years or more are more literate than women (72% of the men declared that they can read and write a letter against 60% of women).

However, the government policy of free education for all children (girls and boys) is fruitful, noting that among the young population of 15-24 years of age, the proportion of literate population not only increased but gender equality was achieved (77% of literate in both men and women population).

### **12.3.2 Access to media**

Data related to the exposure of women and men to media, are particularly important for setting up education programs for behavior change and for in-

formation diffusion in all domains. The third Demography and Health Survey (DHS-III, 2005) revealed that women are less exposed to Medias than men. In fact, 44 % of women and 19 % of men are not exposed to any media.

A survey carried out by “the Population Media Center” showed that the most used media is the radio, with more men audience than women: 59% of women listen to radio every day per week against 69% of the men.

#### **12.4. Reproductive health**

During the round table held in Gisenyi in 2001, the Government of Rwanda has determined the components of reproductive health, namely Maternal et Infant health, Family Planning, genital infections, Sexually Transmitted Infections and HIV/AIDS, reproductive health of the youth, prevention and cares to victims of sexual violence, social transformations for increasing women empowerment in decision making and providing them with chances to participate in the development of the country.

##### ***12.4.1. Maternal and Infant Health***

For a good Maternal and Infant Health, a woman must receive antenatal care at least four times during her pregnancy as well as the vaccines against tetanus.

They also must give birth in health facilities and receive quick intervention in case of complication during delivery and benefit from post natal care, 42 days following childbirth. According to DHS-III, 2005, Maternal Mortality is estimated at 750 deaths for 100,000 live births against 1,071 maternal deaths for 100,000 live births in 2000.

According to data from MINISANTE, during the year 2006, 566 women hospitalized for delivery, 6 died. That makes 1,081 deaths for 100,000 live births in the hospitals.

However, these last numbers are to be used cautiously, since hospitals receive serious cases. Some determinant factors of this phenomenon are : low use of modern contraceptive for birth spacing, delay in taking antenatal care, low use of delivery services given that nearly a quarter of women gives birth at home, postnatal care is not taken in most cases.

According to DHS-III, Infant Mortality has been estimated as 86 deaths for 1,000 live births, the under five mortality at 152 deaths for 1,000 live births. The infant health is greatly influenced by the living conditions of the households.

##### ***12.4.2 Family planning***

As regard to family planning, the use of modern contraception by married women is still low (10 %), while the knowledge level seems to be very high.

Reasons for not using modern contraceptive methods by married women in Rwanda have to be known, bearing in mind that the ideal size of the family

desired by both women and men (4 children) is lower than the total fertility rate estimated at 6.1.

#### ***12.4.3. HIV/AIDS and Sexually Transmitted Infections (STI).***

Results of EDSR-III on HIV/Aids and STIs show that women are the most often exposed to the risk of being infected with STI/HIV/Aids. Indeed, almost all interviewees declared to have knowledge of HIV/Aids, nevertheless, only 54 % of women and 58 % of men have general knowledge on Aids.

The survey shows also that 3 % of adults aged 15 to 49 years are infected with HIV. However, this average hides disparities by sex. In fact, the prevalence rate for women is higher than that of men of the same age group. The ratio between women and men is 1.6.

By age groups, the prevalence of HIV culminated in the age group of 40-44 for men (7.1 %) and in the age group of 35-39 women (6.9 %). Positive seroprevalence is more frequent to women having at least secondary level of education than to men of the same level of education (6.4 % for women against 3.3 for men).

#### ***12.4.4. Reproductive Health of the Youth***

It is important to have indicators related to reproductive health of the youth, knowing that non desired pregnancies, HIV/Aids and other STI can reduce considerably their education and professional opportunities.

Youth aged 15-19 years represent 23% of all women in reproduction age (15-49 years) and contribute to 3 % of the fertility of the total women. It is thus obvious that among the youth aged 15-24 years, 24 % of women and 14 % of men had risk to be infected with HIV/Aids by adopting risky behaviors.

HIV prevalence of youth aged 15-24 years is estimated to be 1.0 %, and by sex, women are the most infected, irrespective of the age group.

This prevalence varies from 1.5 for women to 0.4 % for men, meaning an infection ratio between male youth and female youth of 3.8%. In other words, for every 100 male youth infected, there are 380 female youth infected.

#### ***12.4.5. Female and child based violence***

The Demography and Health Survey, 2005, revealed that nearly a third of women (31%) declared having been victims of physical violence during a certain point of time since the age of 15 years and, in 19 % of the cases, women have been inflicted acts of violence during the last twelve months preceding the interview. Most frequently, this violence is committed by the husband or the partner (66 %).

In 2006, a qualitative survey showed that violence also affect children and youth. According to the survey carried out by the National Youth Council using participatory approaches such as drawings and role plays, children and youth identified physical, sexual and psychological violence.

Their drawings indicated that the big part of violence of which they are victims occurs at home, in the community, in forest and in the farms. Other studies must be carried out to measure the extent of the violence in the country.

## 12.5 . Participation in decision making in the Government, 2006

*Table 12-12: Distribution of men and women by position in Government*

<b>POSITION</b>	<b>Men</b>	<b>%</b>	<b>Women</b>	<b>%</b>	<b>Number</b>
Ministers & Minister of State	20	69	9	31	29
Secretary general	15	80	3	20	18
Chamber of deputies	43	51,2	40	48,8	83
Senators	16	69,57	7	30,57	23
Governors	3	66,7	2	33,3	5
Mayors	28	93,3	2	6,4	30
Executive Committee of the districts	-	63,3	-	36,7	-
Consultative Committee of the districts	423	54,1	360	45,9	783
Consultative Committee of the sectors	808	64,7	440	35,3	1248

Source: MINEDUC

Equal participation of women and men in the decision making is a factor of development. Indeed, gender equality is measured in term of the involvement of men and women in the decision making process and in the design of the development policies.

At present, the principle is that at all levels of decision making, women are represented at least by 30%, as expressed in both the Beijing conference and the constitution of Rwanda.

This margin has been overstepped in most cases except at local government level where out of 30 mayors, only 1 women are. The proportion of women is very low in industries, banks and insurance, real estate and others. The sensitization and the advocacy for integrating women in decision making institutions must be pursued and strengthened.

## 12. 6. Women Participation in development

In Rwanda, women's participation in income generating activities is a major objective of the government's policies and programs.

The activity rate of women is an important indicator that measures their situation. According to the Households Living Conditions Survey (EICV2, 2005/06), the proportion of economically active women is higher than the proportion of men; 63% of women against 59% of men.

*Table 12-13: Proportions of the population and poverty level among potentially vulnerable households (%)*

	Population share	Poverty level	Population share	Poverty level
Female-headed	27.6	66.3	23.8	60.2
Widow-headed	22.0	67.7	18.7	59.9
Child-headed	11.3	60.1	0.7	56.9
<b>All households</b>	<b>100</b>	<b>60.4</b>	<b>100</b>	<b>56.9</b>

Source: EICV1 and EICV2 data. Note: (1) A 'child-headed' household is one that is headed by a person under the age of 21 years.

Some groups of the population of the country are generally adversely affected than others. Those are households headed by women, especially the widows and those headed by children (of less than 21 years).

In 2005-2006, the Household Living Conditions Survey (EICV2) showed that about a quarter of the population (24%) live households are headed by women. This proportion has decreased slightly from 2000/01 where it was 28%. The proportion of households headed by children is small; it dropped from 1.3% in 2000/01 to 0.7% in 2005/06.

Among households headed by women, 60% are poor. This level was 66% in 2000/01, and reveals a net improvement.

The Government of Rwanda has created a favorable environment to promote gender equality; this is in line with the Ministry of gender and family promotion which is the national machinery responsible for promoting equality through out the development process of the country. It is therefore fitting to support the noble cause for promoting gender equality.

Despite the sensitive tasks yet to be accomplished, strong measures need to be taken to ensure that the progress made so far are consolidated and further step are made towards an equitable society where men and women are equal partners in determining their destiny and advancing developmental goals.

## 13. HEALTH DEVELOPMENT

### 13.1. Introduction

The vision of the Government of Rwanda is to guarantee the well being of the population by ensuring substantial and sustainable economic growth and the reduction of poverty in the context of good governance

In health, the vision is to guarantee the economic well being of the population and poverty reduction in the framework of good quality health. To achieve this objective, the Government of Rwanda exerts necessary efforts in order to improve the availability, countrywide of qualified professionals in health, in particular in rural areas.

To ensure this availability, Rwanda has updated and adopted a development plan of human resources oriented to a strong initial training of medical and paramedical personnel through KHI among others, and a continuing training for working personnel.

Moreover, the Government of Rwanda has developed incentive structures aiming at encouraging working professionals in the health sector to improve their capacity and their qualification.

Substantial efforts have also been deployed to increase the financial support to community based medical insurance schemes and the adherence to these by the poorest population.

Finally, the Government of Rwanda encourages the certification of health personnel and the extension of associations of professional in health. To accomplish the mission assigned by the Government of Rwanda, the health sector has identified the following key objectives:

- 1) improve the availability of human resources;
- 2) improve the availability of drugs, vaccines and consumables;
- 3) improve the geographical accessibility to health services;
- 4) improve the financial accessibility to health services;
- 5) improve the quality and demand of health services in charge of disease control ;
- 6) strengthen the national referral and research hospitals as well as treatment institutions;
- 7) strengthening institutional capacity.

Therefore, health sector has the mandate to ensure and promote the health status of the population of Rwanda, through health system oriented toward performance based quality, preventive and promotional health cares.

In the same spirit, the vision 2020 for the health sector aims at controlling the most endemic diseases such as AIDS, tuberculosis, malaria, diarrheic diseases, malnutrition, respiratory infections and high potential endemic diseases such as cholera, meningitis, bacillary dysentery and measles. The EDPRS highlights more clearly this vision, emphasizing on disease prevention, specially HIV/AIDS and malaria, improved accessibility to health care through cost reduction of services to benefit the poorest and the dissemination of information on health care at community level, and improved quality services.

## **13.2. Performance of Health Sector, 2006**

### *13.2.1. Financing the Health sector.*

Analysis of public financing of the health sector shows that between 1997 and 2006, the Ministry of Health received highest financing in 1998 with a total contribution of about 161.6 billions Rwandan francs of which 64% of external assistance. Indeed, in 1998, the country embarked on the development and reconstruction that put an end to the emergency period following the 1994 Genocide.

Since then, this financing decreased progressively until 2001. From 2000 to 2006, the financing of the health sector evolves irregularly, greatly influenced by the evolution of the external development assistance. It is from 2004 that the sector records an upward trend in terms of financial contributions at national as well as international level.

The external assistance is oriented especially to VIH/AIDS and STI as well as to reproductive health. It should be noted also that the health sector is supported by the recurrent budget at the decentralized level, since 2002.

In 2006, the total contribution of the Government and its partners to the national health budget was estimated to 11.99 billions frw. The contribution of the Rwandan government represents 38% of the total recurrent and development budget.

The budget of the Ministry of health has been executed appropriately (with an execution rate of 100.3%). However, some of the programs ("Development of health infrastructures" and "Support to Community Health") executed their budget at a maximum rate of 80%. In fact, these programs have been overestimated and finally reallocations have been made to strengthen existing infrastructures.

Nearly 50% of the MoH budget is allocated to special interventions to major health problems (47.7%) while around 16% is allocated to the provision of basic health care (16.1%) and health services contract (15.5%).

*Table 13-1 : Execution rate of the Ministry of Health, 2006*

<b>Programme</b>	<b>Budget 2006</b>	<b>allocation</b>	<b>Execution</b>	<b>%</b>
PROVISION OF BASICS HEALTH CARES	1.921.292.504	16.1%	1.909.738.737	99,4%
SPECIAL INTERVENTIONS TO MAJOR HEALTH PROBLEMS	5.698.370.918	47.7%	5.725.470.070	100,5%
HEALTH STRUCTURES DEVELOPMENT	230.274.032	1.9%	170.561.744	74,1%
IMPROVEMENT OF SERVICE MANAGEMENT	858.604.306	7.2%	826.085.330	96,2%
SUPPORT TO COMMUNITY HEALTH	495.478.376	4.1%	398.140.643	80,4%
INFRASTRUCTURE STRENGTHENING	894.004.028	7.5%	1.117.196.715	125,0%
HEALTH SERVICES CONTRACT	1.855.676.360	15.5%	1.841.613.215	99,2%

Source: Finance Law 2006

The spending of the Ministry of health on recurrent budget (including the districts) represents 6% of the Government's total spending.

The support budget to districts represents 38% of the recurrent budget executed by the MoH.

*Table 13-2 : Proportion of the MoH spending (including districts) in the total Government spending*

<b>Type of budget</b>	<b>Amount (FRW)</b>	<b>Share of the MoH,</b>
Recurrent budget	281.539.806.360	6
Recurrent and development budget	392.913.801.919	8

Source: Budget execution of MINISANTE, 2006

### *13.2.2. Utilization and demand for health services.*

Since 2001, the population has progressively manifested its desire, never registered before, to visit health services at their disposal. Therefore, the utilization of curative services was 24.7% in 2001; in 2002 and 2003, the use of curative services was 28.4% and 30.7% respectively.

In 2004, 39.0% of the population visited modern curative services and in 2005 the proportion of the population visiting curative services increased considerably and reached 46.8% at the end of that year.

At the end of 2006, the use of the curative services was evaluated at 0.6 NC/ an/ inhabitant, meaning that 60% of the population had frequented curative

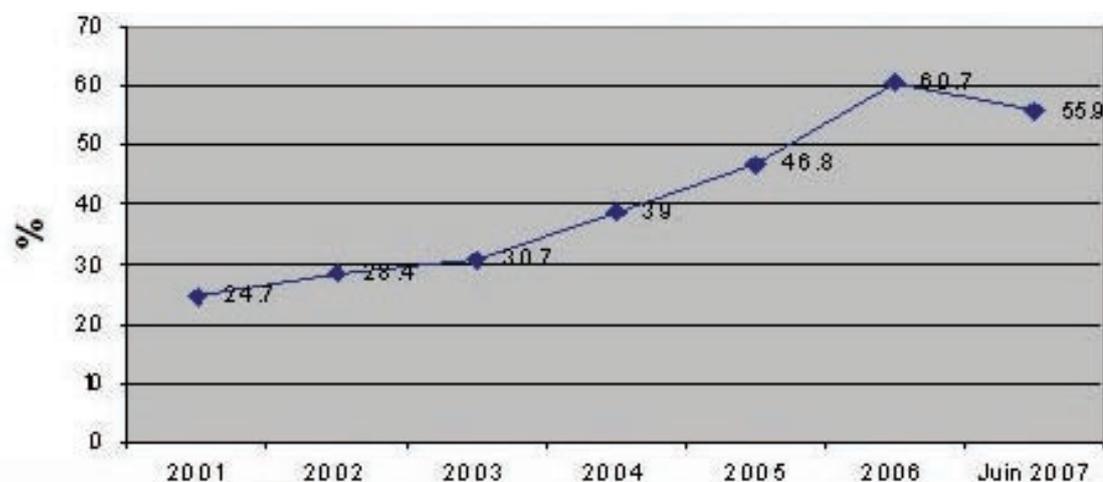
services at least once a year in order to receive health care services. This rise in the use of curative services is probably the result of the mass adherence of the population to the community based medical insurance schemes, the rise of salary scheme in the health sector, the extension and generalization of the result base payment system known under the acronym of PBF (Performance Based financing).

*Table 13-3 : Evolution of the use of curative services, 2001 - july 2007*

Year	Total target Population	New cases (NC) of external consultation			% of use
		NC in Health centers	NC dans in Hospitals	Total	
2001	8.66.900	2.070.730	66.168	2.136.898	24,7%
2002	8.543.817	2.365.899	57.196	2.423.095	28,4%
2003	8.921.022	2.643.100	97.341	2.740.441	30,7%
2004	8.844.100	3.278.911	173.156	3.452.067	39%
2005	9.042.674	4.038.698	195.906	4.234.604	46,8%
2006	9.341.133	5.437.461	230.651	5.668.112	60,7%
Juin 2007	9.626.194	2.487.992	136.398	2.624.390	55,9%

Source: MoH/Health Information System 2001- june 2007

*Graph 13-1 : Evolution of the use of curative services, 2001 – 2006*



### *13.2.3 Community based medical insurance.*

The community based medical insurance clearly allowed the financial accessibility of the population to health cares. Whereas health services were utilized at 25% in 2000s, this rate reached 60% in 2006.

In the extension process of the community based medical insurance, the objective in 2006 is to have the number of community based medical insurance corresponding to existing number of the Health Centers. Currently (2006), every

(2) With completion rate of 93,3% ; 94,6% ; 96,5% ; 98,5% ; 91,3% ; 84,5% et 81,8% in 2001, 2002,2003, 2004, 2005, 2006 and end june 2007 respectively for health centers and 83,3% ; 64,5% ; 74% ; 85,4% ; 83,8% ; 83,6% and 79,1% for district hospitals.

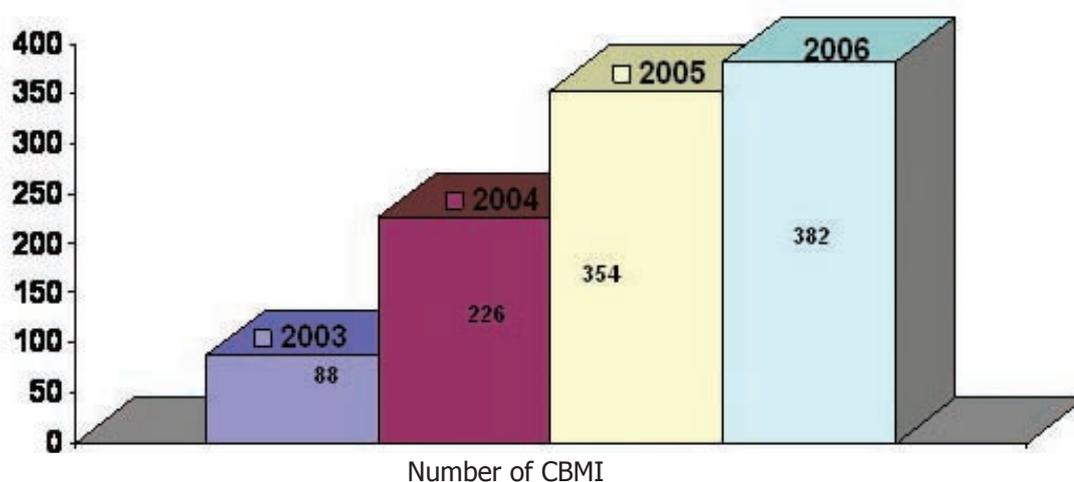
Health center in the country has a section of the community based medical insurance (CBMI). The number of the sections of the CBMI increased considerably. In 2003 there were 88 sections of the CBMI (23%) against 226 (59%) in 2004, 354(92%) in 2005 and 382 (100%) in 2006.

*Table 13-4 : Number of CBMI sections (2003-2006)*

Year	Number of CBMI	Coverage
2003	88	23%
2004	226	59%
2005	354	92%
2006	382	100%

Source: MoH/Technical support to CBMI

*Graph 13-2 : Evolution of the CBMI, 2003 - 2006*



The extension of the CBMI increased strongly during the year 2006, as it appears in the above table, this is due to the fact that in all districts there exist health facility, which is a requisite for the existence of the CBMI.

The results of the adherence of the population to CBMI show the progressive ownership of the system by the population. On average, the coverage rate was 9% in 2003 and 73% in 2006; this upward trend reflects the sustained interest of the population to the CBMI.

The increase of the service package through district and national pooling risk is reinforced with active adherence of the population to CBMI. It is worth noting that many factors explain the strong increase of the CBMI in 2006:

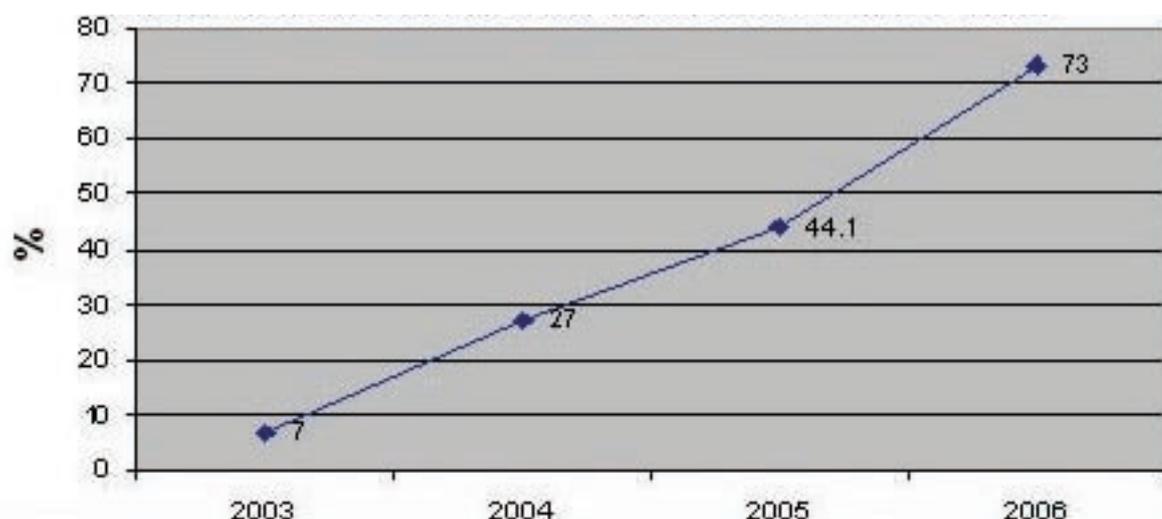
- Involvement of administrative and political authorities;
- Involvement of health structures;
- Involvement of religious organizations and
- Intensive sensitization by radio spots and testimonials.

*Table 13-5 : Average adherence rate of the population to CBMI (2003-2006)*

Year	2003	2004	2005	2006
Covarege rate of the population	7%	27%	44.1%	73%

Source: MINISANTE/Support to CBMI, 2003-2006

*Graph 13-3 : Evolution of the adhrence to the CBMI, 2003 – 2006*



Even though adherence to the CBMI increased, it remains that nearly 55% of the Rwandan population live with less than 1 \$US per day and therefore, many of them are not able to pay their contribution to CBMI.

To make quality health care accessible to all Rwandans, the objective of the Government of Rwanda is to support the poorest to adhere to the CBMI.

In 2006, the objective was to support 500,000 poor people to adhere to the CBMI, but at the end of the year, member cards of the CBMI had been distributed to 803,500 poor people.

### **13.3. Fight against epidemics**

#### **13.3.1. HIV/AIDS**

The objective was to reach 350 FOSA VCT/PMTCTS offering VCT and PMTCT services at the end of the year 2006, since there were no partners to open new VCT and PMTCT sites; a total of 234 health facilities integrated the PMTCT services by the end of 2006 and 256 have integrated VCT services.

Graph 13-4 : Evolution of VCT sites in health facilities

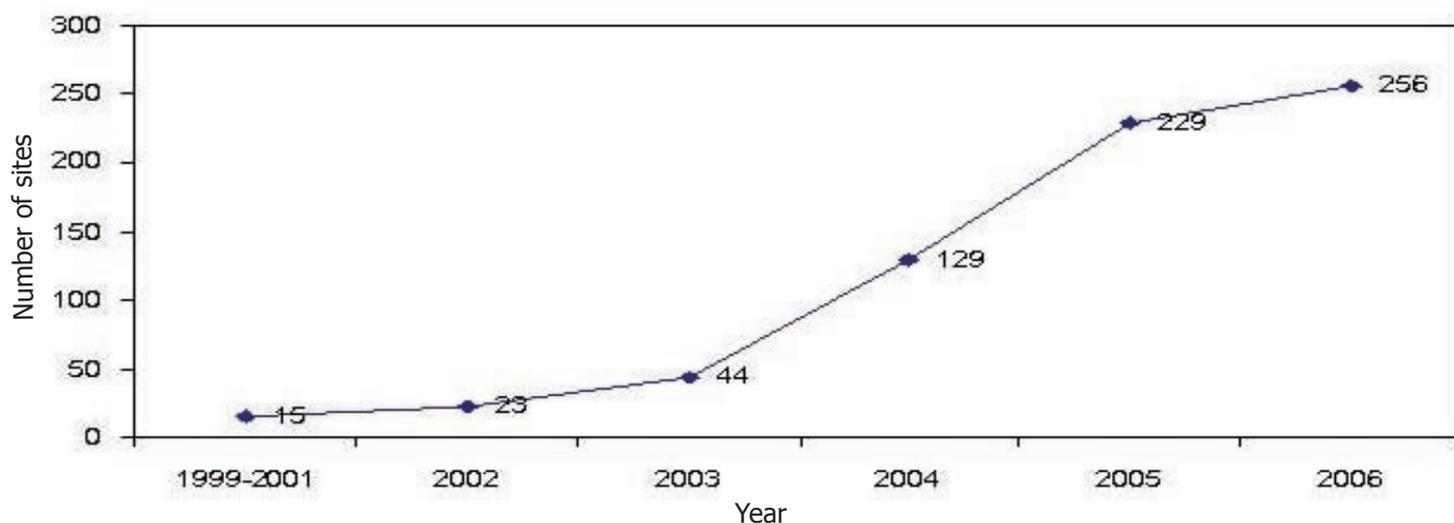


Table 13-6 : Data on VCT in 2005 and 2006

Year	Total tested	Total tested VIH+	HIV+that claimed Results of the test	% HIV+ that claimed Results	HIV- That claimed Results	% HIV- that claimed results
2006	472,194	36,016	34,949	97.0	421,587	96.7

Source: MoH/TRAC : Annual report, 2004-2006

During the year 2006, a total of 472,194 were tested of whom 456,536 (96.7%) received their results.

The proportion of women tested in comparison with women receiving ANC is high in rural than urban areas. The proportion is high in urban than in rural for women who took their result. The proportion of women taking the NVP is high in urban area.

Table 13-7 : PMTCT situation in provinces, 2006

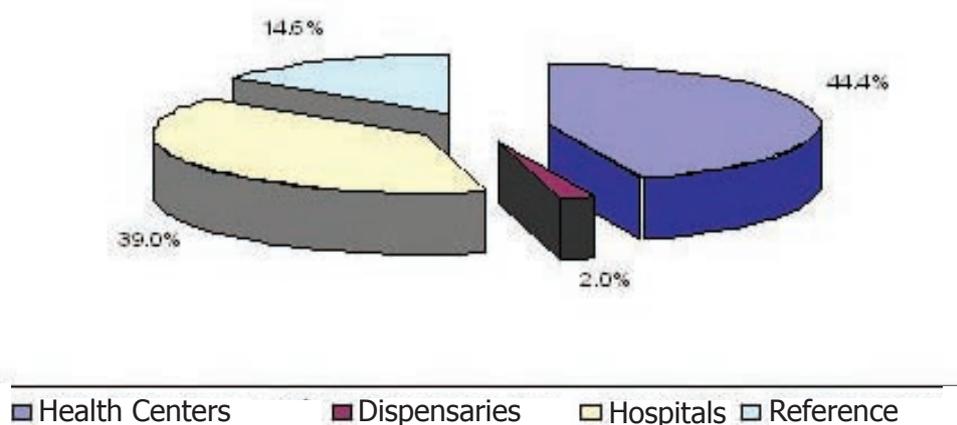
Province	F ANC	F tested HIV	F HIV	Total F. taking their results	F.taking NVP	Partners Tested HIV	Partenaires HIV ++
East	51 772	47 545	1 959	46 834	902	21 081	1 228
Kigali City	24 234	23 233	2 485	22 965	1 862	9 398	821
North	34 409	33 949	972	33 750	693	21 729	690
West	63 435	61 789	2 092	60 600	1 502	35 142	1 115
South	56 773	52 991	2 075	52 177	1 652	27 680	1 312
<b>TOTAL</b>	<b>230 623</b>	<b>219 507</b>	<b>9 583</b>	<b>216 326</b>	<b>6 611</b>	<b>115 030</b>	<b>5 166</b>

Source: MoH/TRAC : Annual report,2006

The great number of women tested in the western province (61,789 women) against 24,234 women tested in the City of Kigali. The HIV prevalence is high for women and their partners in the City of Kigali, followed, in this order, by the Eastern, Southern, Western and the Northern Provinces. The proportion of couples with different results in comparison with tested couples is high (5.3%) in the East and the City of Kigali. For the therapeutic caring of persons living with HIV (PLHIV), the number of patients was estimated at 34,136 distributed in 133 ARV sites throughout the country. At the end of the year 2005, 84 sites care for PLHIV, this number reached 133 sites giving ARV to PLHIV at the end of December 2006. It should be noted that a total of 49 ARV sites were open throughout the country in 2006.

Health centers take care of the great number of patients than other types of health facilities, with 44.4% of the total number of patients under ARV. The District Hospitals take care of nearly 39% of all patients under ARVs while the referral hospitals do so for only 14.6%. The dispensaries and private clinics count for 2% of the total number of the patients under ARV.

*Graph 13-5 : Distribution of patients under ARVs by type FOSA, end 2006*



Male and female patients under ARV, of all age, who died during each month of the year 2006 are reported by health centers. The table below shows that male patients die with an annual rate of 3.87 ‰.

*Table 13-8 : Proportion of deaths for Patients under ARV, 2005 - 2006*

Year	Mortality rate	Mortality rate : Male	Mortality rate : Female
2005			
2006	3,02%	3,87%	2,54%

Source: MoH/TRAC : Annual Reports, 2004-2006

At the end of 2006, every district of the country had at least one ARV site, but considerable efforts are needed to open new ARV sites for districts, such as Nyamagabe and Nyaruguru, that have only one ARV site, in order to avoid the overcrowding of the sites to provide quality services..

*Table 13-9 : Distribution of ARVs sites and Patients ARV, end 2006*

<b>PROVINCE</b>	<b>Number of ARV sites</b>	<b>Children</b>	<b>Adults</b>	<b>Total</b>
Eastern Province	30	459	5100	5559
Western Province	30	498	5861	6359
Northern Province	23	338	3866	4204
Southern Province	21	437	4703	5140
Kigali City	29	1025	11849	12874
<b>Total</b>	<b>133</b>	<b>2757</b>	<b>3137</b>	<b>34136</b>

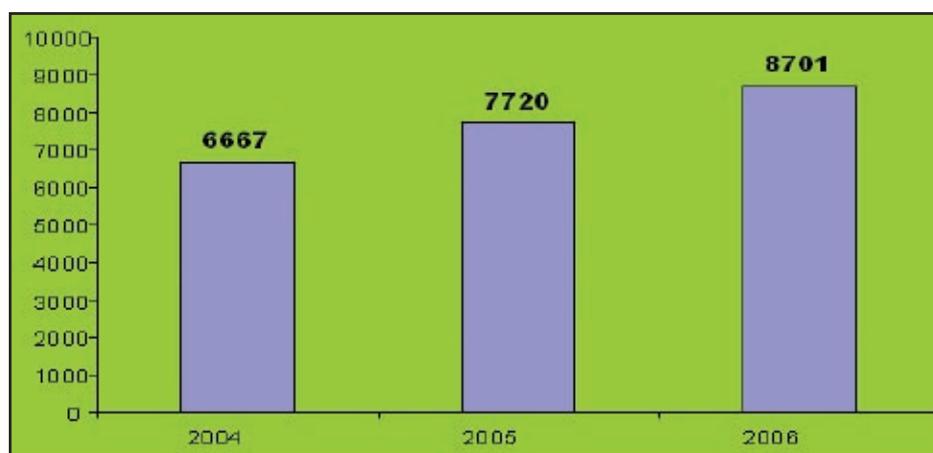
Source: MoH/TRAC : Annual Reports, 2004-2006

### 13.3.2. Tuberculosis.

Rwanda is a high risky TB country, with an estimated annual infection risk of 2% (WHO). During the year 2006, interventions for TB fight and treatment focused on the improvement of TB treatment with a significant increase of 5.5% of therapeutic success rate (from 76.5% in 2004 to 82% in 2005); the caring of multi resistant TB; the extension of the community DOT in 7 districts as well as the reinforcement of the TB/HIV integration.

Concerning the tracking, over 8,701 cases have been notified during the year 2006, having increased by 981 cases from the year 2005.

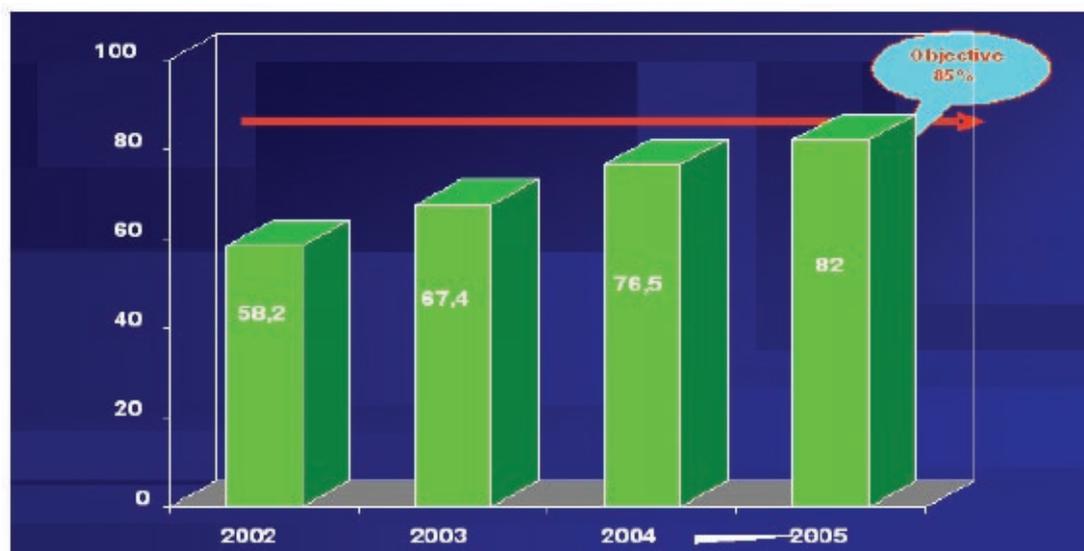
*Graph 13-6 : Situation of the TB tracking, 2004 - 2006*



Each year, an assessment of the cohort of patients having begun the treatment one year before is carried out. The graph below shows the patients having completed their treatment in 2006.

Therapeutic success for the year 2005 represents 82%, with an increase of 5.5% from 2004. Better success rates have been recorded in Rulindo (100%), Kamonyi (96%), Nyabihu (92%), Rusizi (91%), Karongi (86%) and Kicukiro (89%). The lowest success rate is registered in CHUK (48%).

Graph 13-7 : Evolution of therapeutic success rate of the TB, 2002 – end 2006 (3)



The couple VIH/SIDA and Tuberculosis remains inseparable. The table below shows that the tracking of HIV to TB infected persons increased.

It went from 44 to 79% for TPM+ and 54.3 to 73.2% for other types. It should be noted that TPM+ are less infected by HIV (32.5%) against 55.3% elsewhere.

Table 13-10 : Couple TBC-HIV, 2005 - 2006

Year	TPM+		Autres formes			
	Registered	Tested	HIV +	Registered	Tested	HIV +
2005	3962	1749 (44%)	705 (40.3%)	2205	1198 (54.3%)	724 (60.4%)
2006	4231	3346 (79%)	1090 (32.5%)	4831	3538 (73.2)	957(55.3%)

Source: MINISANTE/PNILT : Annual reports 2005-2006

### 13.3.3. Malaria.

During the year 2006, 1,065,525 cases of Malaria have been recorded in recognized public centers, of which 484,903 cases of Malaria (45.5%) have been confirmed.

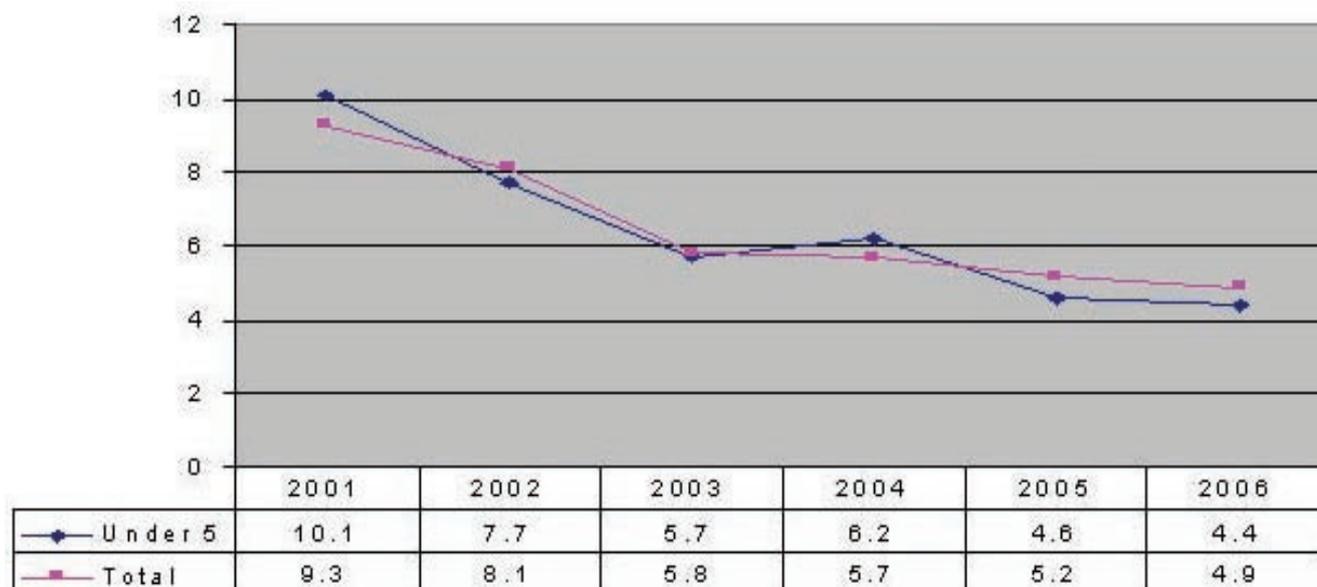
Compared to the year 2005, the malaria specific morbidity decreased from 46% to 39.2%.

The decrease of malaria specific morbidity could be explained by improvement in the quality of health care, the training of health personnel and the massive adherence to CBMI and the increase in the utilization of the MII.

(3) Reminder that the assessment of therapeutic success of a cohort of patient under ARV is done over patent under treatment twelve months before.

Hospitals recorded 30,303 serious cases of malaria and 1,477 deaths. This represents 57.36% of all intern patients in hospitals. In the national referral hospitals nearly half (50.68%) of intern patients are children of less than 5 years of age.

*Graph 13-8 : Malaria lethality rate in district hospitals of Rwanda (2001-2006)*

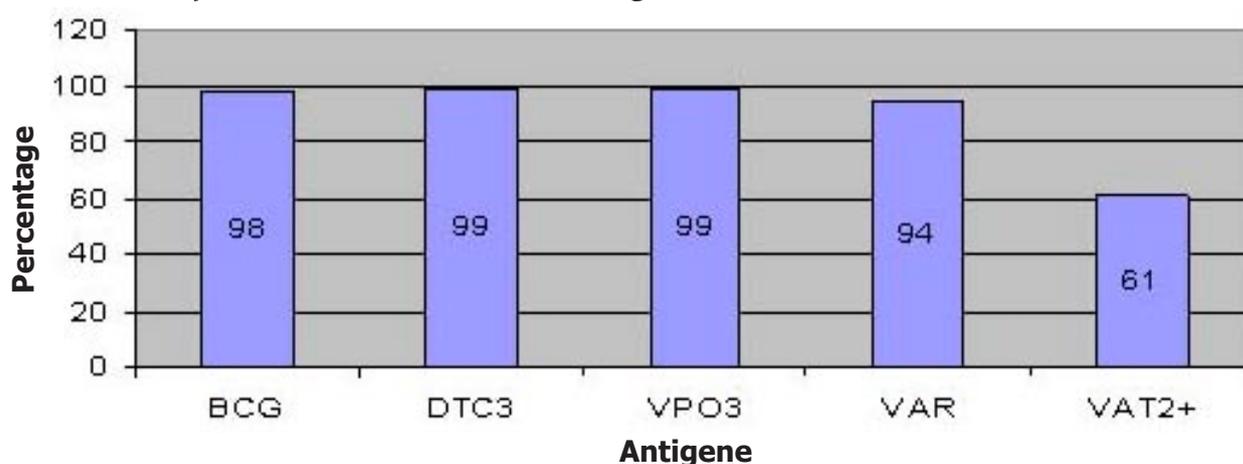


#### 13.3.4. Child immunization.

Vaccination improved considerably in 2006 as indicated in the graph below. The average rate of immunization coverage at national level is above 90% for all vaccines administered to children of less than one year of age, in accordance with the established immunization schedule.

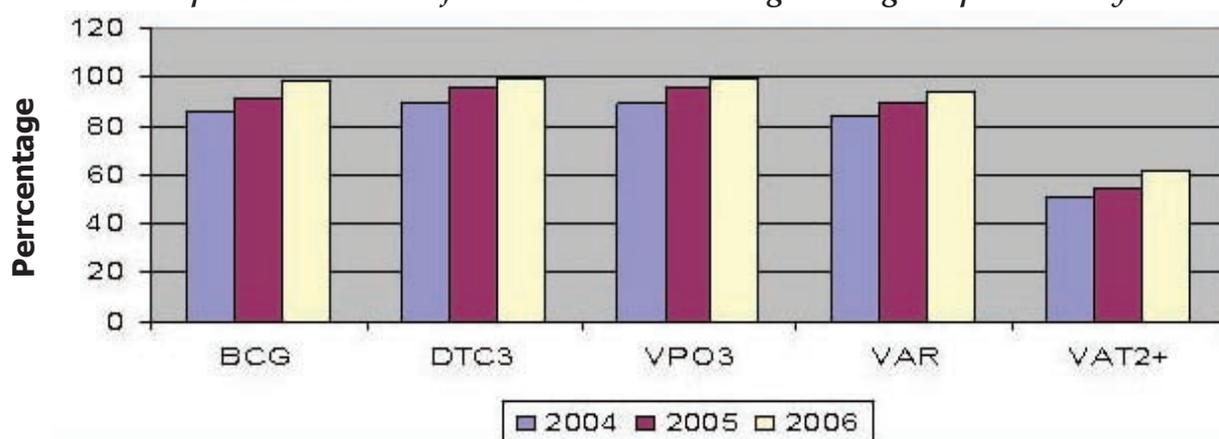
The strengthening of the routine immunization system by implementing the “Reach Every District” strategy, RED in short, was one of the major factors that contributed to the improvement of the immunization performance indicators during the year 2006.

*Graph 13-9 : Immunization coverage rate, 2006*



The infant immunization coverage rate increased progressively and has remained above 80% during the last three years. The weak performance for tetanus immunization among pregnant women is mainly due to underreporting of ANC data. It has been proved from surveys that the ANC rate is above 80% in health centers and that pregnant women are immunized during ANC sessions in the same proportions..

*Graph 13-10 : Trend of immunization coverage during the past three years*



#### 13.3.4. Reproductive health.

##### (1) Family planning

The rate of contraceptive prevalence went up from 4% in 2004 to 10.3% in 2006. Among women who didn't use any contraceptives at the time of the DHS-III, 59% declared their intention to use contraceptive methods in the future, 7% were not sure and 34% didn't have any intention to do so.

However, modern contraceptive methods are available in 80% of the FOSA (359 FOSA). The consumption of contraceptives increases annually. The table below shows trends in modern products consumption between 2004 and 2006.

*Table 13-11 : Evolution of contraceptive consumption, 2004 - 2006*

Contraceptive products	2004	2005	2006
Lo-Femenal	75,459	116,664	167,523
Microgynon	100,856	133,981	184,900
Neogynon (4)	32,070	1,787	---
Ovrette	49,152	62,039	74,931
Depo-provera	150,175	225,467	348,356
Condom M	494,436	645,772	1,332,015
Condom F	1,375	1,641	7,770
IUD	1,029	955	1,072
Norplant/Jadelle	1,727	2,063	4,327

Source: MoH: Annual report, 2006

(4) Le Neogynon was distributed to clients until 2005

Since the consumption and the demand become more important, the acquisition of contraceptive products remains expensive and the involvement of many partners including the government, remains a major challenge to deal with in the short run.

*Table 13-12 : Cost of contraceptives, 2002-2006 (USD)*

Bailleurs	2002	2003	2004	2005	2006	Total
USAID	25,468.96	276,938.53	238,831.46	854,203.19	910,371.88	2,305,814.02
UNFPA	49,808.00	267,609.00	252,400.00	174,119.00	343,489.00	1,087,425.00
<b>Total</b>	<b>75,276.96</b>	<b>544,547.53</b>	<b>491,231.46</b>	<b>1,028,322.19</b>	<b>1,253,860.88</b>	<b>3,393,239</b>

Source: MINISANTE/: Rapport annuel 2006

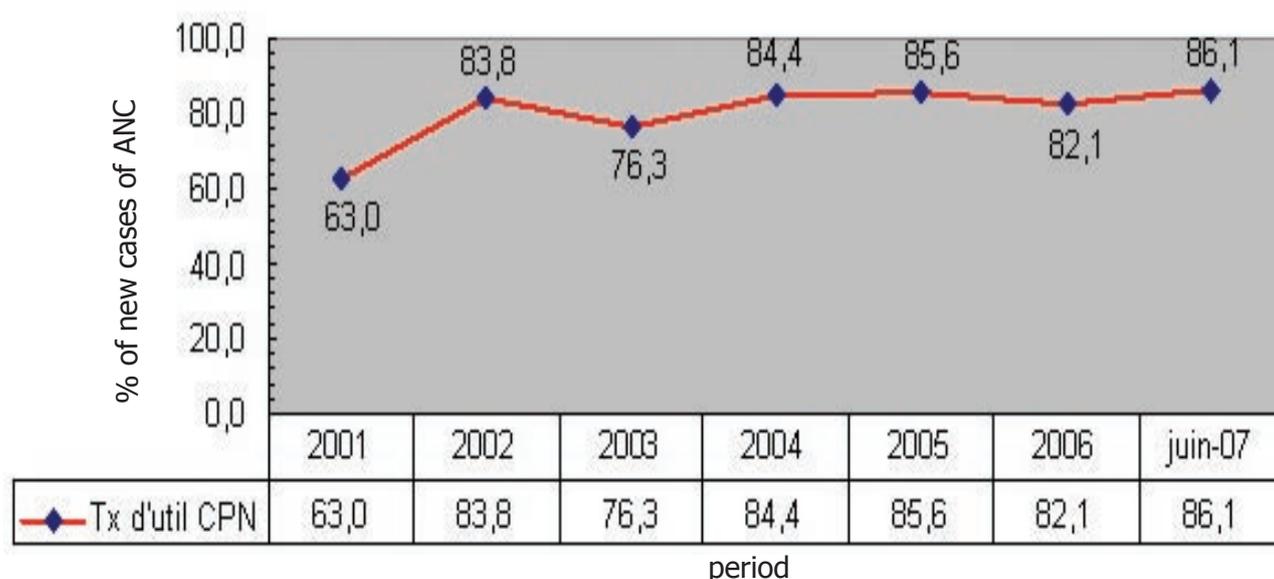
## (2) Antenatal consultations (ANC).

The WHO recommends consultation of pregnant women by health professionals to confirm pregnancy, to evaluate the evolution of the pregnancy, to detect possible anomalies and assist the pregnant women to prepare for delivery.

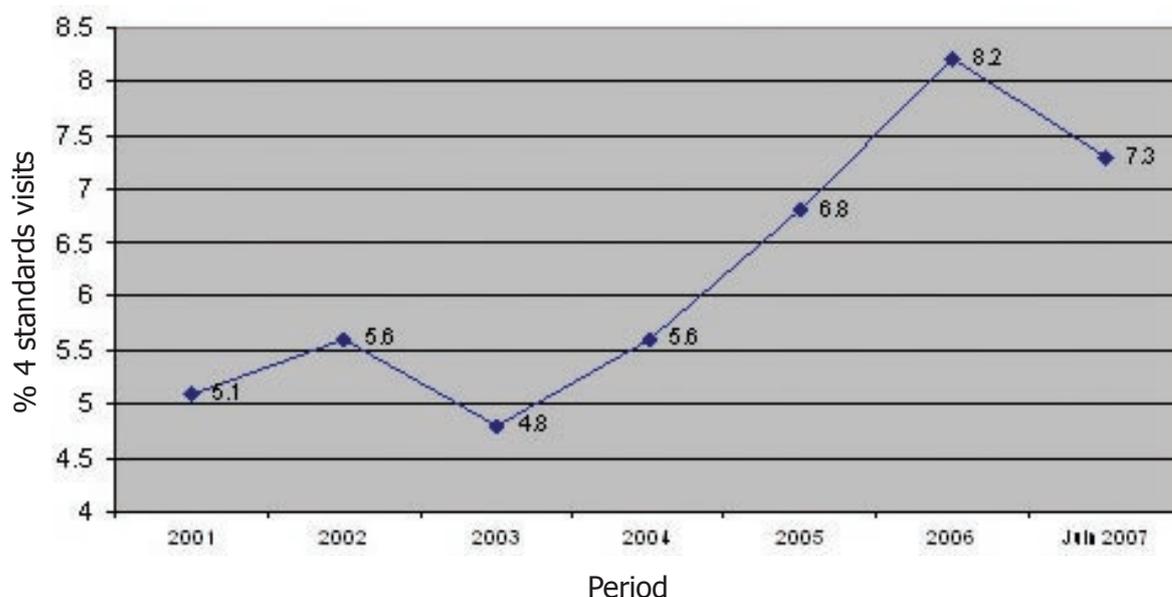
These pregnancy follow-up are carried out in 4 important phases of the pregnancy are essential in the prevention of possible maternal deaths.

In Rwanda, more than 75% of pregnant women obtain health professional services at least once during their pregnancy. Since 2002, ANC for pregnant women was never below 75%.

*Graph 13-11: Evolution of the adequate coverage of ANC by pregnant women*



*Graph 13-12 : Evolution of the visits to ANC services by pregnant women*



### (3) Childbirth in health centers.

The maternal mortality rate in Rwanda is evaluated at 750 deaths for 100,000 live births.

One of the mortality rate reduction strategies is to sensitize pregnant women to give birth at health centers where they can be assisted by trained personnel and if need, be transferred to more specialized facilities to undergo Caesarean or any other suitable obstetric operation.

With the combination of several interventions, the number of women giving births at health centers increased progressively, from 62,552 in 2001 to 181,622 in 2006 i.e. it tripled since 2001.

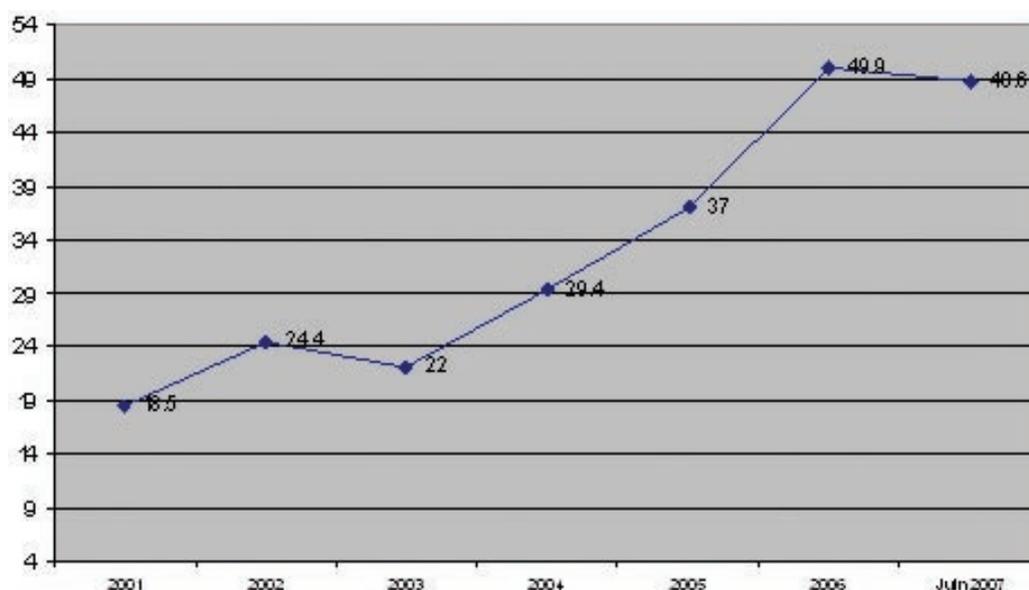
The rate of assisted childbirths went from 18.5% in 2001 to 49.4% at the end of 2006; it is estimated to be 48.6% at the end of June 2007.

*Table 13-13 : Assisted childbirth in health centers, 2001 -june 2007*

Year	2001	2002	2003	2004	2005	2006	Juin 2007
Childbirth at Health centers	42.319	60.706	55.150	66.209	80.976	109.108	61.300
Childbirth at hospitals	20.233	24.702	24.066	38.495	50.331	72.514	27.529
Total	62.552	85.408	79.216	104.704	131.307	181.622	88.829

Source: MINISANTE/ Health Information System 2001-2007

*Graph 13-13 : Evolution of assisted childbirths in FOSA*



#### (4) Fight against deficiency born diseases.

The 1996 nutrition survey revealed a deficiency in vitamin A of 25% and 21% respectively for children of 6 months and for children aged between 6 and 12 months; while the 2000 DHS shows that 7% of pregnant women are affected with dusky blindness.

Aware of the adverse effects of the deficiency in Vitamin A, Rwanda committed during the World Child Summit (New York 1990), international Conference on hidden hunger (Montreal 1991) and international Conference on Nutrition (Rome 1992) to reduce and then eliminate the deficiency in Vitamin A and its effects.

*Table 13-14 : Evolution of the results of Vitamin A supplementation , 2003 - 2006*

	Period		Coverage rate
	6-11 months	12-59 months	Women in post partum
2003	93.11%	102.9%	47.8%
2004	99%	100%	68.5%
2005	100%	105%	80%
2006	100%	100%	87%

Source: MINISANTE/: annual report 2006

The government of Rwanda has systematically dealt with intestinal parasitics of children under five years old and women in post - partum. The results on the two subsequent years are encouraging.

*Table 13-15 : Evolution of anti paratitic results for children and women in post partum, 2005 - 2006*

<b>Period</b>	<b>Children 12-59 months</b>	<b>Women in post partum</b>
2005	91.1%	88%
2006	100%	95%

Source: MINISANTE/: Rapport annuel 2006

## 14. DEVELOPMENT IN EDUCATION

### 14.1. Introduction

Like other sectors, the education sector suffered from the 1994 genocide. However, considerable progress, far away above the level of the sector in 1994 has been achieved in some domains.

The progress achieved especially during the last five years, are the results of several initiatives of the Government of Rwanda. The number of pupils and students as well as education infrastructures increased progressively. Among the initiatives that contributed to this increase, it should be mentioned the "catch up program" in primary school, which consisted of the re-enrolment of children having abandoned school for any reason. Free primary and lower level secondary school contributed to the increase of pupils and students at these two levels of education.

### 14.2. Analysis.

The Rwandan education system considers three types of schools: government funded school, free subsidized schools - managed jointly by the government and different partners (religious communities, association of the parents) and private schools managed by parents and privately.

#### 14.2.1. Nursery and Primary education

##### NURSERY SCHOOLS

Presently, nursery schools are greatly private schools managed by parents. The role of the Government is to elaborate and follow up curricula and education policies at this level.

##### PRIMARY

*Table 14-1 : Evolution of the number of teacher and pupils in public and private subsidized primary schools*

Number \ School Year		01-02	02-03	03-04	2005	2006
		Pupils				
	Boys	763277	810585	862156	912 207	984272
	Girls	771233	825978	890432	945 634	1035719
	<b>Total</b>	<b>1.534.510</b>	<b>1.636.563</b>	<b>1.752.588</b>	<b>1857841</b>	<b>2019991</b>
Teachers						
	Male	12975	13616	12490	12330	12835
	Female	13049	13703	13702	14614	15639
	<b>Total</b>	<b>26024</b>	<b>27319</b>	<b>26192</b>	<b>26944</b>	<b>28474</b>
	Qualified	21123 ( 62.7%)	23271 ( 81.2%)	23112 ( 88.2%)	25255 ( 93.7%)	27795 ( 97.6%)

The main indicators of primary education are presented in detail in annex 15.

### **Definitions:**

#### ***1. Gross Enrolment rate in primary schools:***

The gross enrolment rate is the ratio of pupils enrolled in primary (all ages) to population in schooling age (population of 7-12 years of age).

#### ***2. Net Enrolment rate in primary schools***

The net enrolment rate is the ratio of pupils of 7-12 years of age enrolled in primary and the population in schooling age (population of 7-12 years of age).

#### ***3. Completion rate in primary schools:***

The completion rate in primary schools is the ratio between new pupils enrolled in primary 6 and the number of the population in schooling age.

#### ***4. Ratio pupil/teacher***

It's the ratio of pupils to teachers .

#### ***5. Repeating rate***

The repeating rate of class c, during year t is the proportion of pupils repeating class c during the year t+1 in respect to the total number of pupils enrolled in class c, during the year t .

#### ***6. Drop out rate***

The drop out rate of class c, during the year t is the proportion of pupils abandoning class c during the year t in respect to the total number of pupils enrolled in class c, during year t .

### **Annex XV : Table 14.1 – 14.13.**

Table 14.1: Indicators of primary education

Table 14.2: Number of pupils by province

Table 14.3: Number of teachers by province

Table 14.4: Number of teachers by qualification

Table 14.5: Number of schools by statute by province

Table 14.6: State of school infrastructures

Table 14.7: Indicators of secondary education

Table 14.8: Number of secondary schools by statute by district

Table 14.9: Number of students by province

Table 14.10: Indicators of higher education

Table 14.11: Number of students by institution

---

(6) This number includes directors of primary schools

(7) UNESCO : Education statistics and indicators

## 15. Environment

### 15.1. Environment in the context of national policies

Rwanda economy is primarily dependent on natural resources. Over 87% of Rwandans depend on subsistence agriculture for their livelihood whereas over 94% of the population uses fuel wood as the primary source of energy for both domestic and industrial uses. In the wake of increasing population pressure on the land and forest resources, biodiversity is increasingly under threat with adverse impacts on tourism as a national income generating strategy. The table 1 below illustrates the revenue from environmental resources which would be compromised if serious and sustained measures are not taken to stem the current rate of environmental degradation.

*Table 15-1. The Revenue collection from tourism to Virunga National Park*

<b>Year</b>	<b>Visitors (pax)</b>	<b>revenue (US\$)</b>
1990	2,726	251,977
1991	1,781	107,933
1992	1,011	236,983
1993	1,111	235,024
1994	61	10,475
1995	1,663	430,542
1996	2,653	346,164
1997	1,192	149,145
1998	0	0
1999	417	87,333
2000	1,313	281,693
2001	2,155	233,176
2002	5,575	1,024,137
2003	7,239	1,377,665
2004	8,593	2,213,383
2005	10,641	3,005,783

Source: ORTPN Statistics 2006

There is a great potential for contribution to revenue from tourism. Table 1 shows a rapidly growing stream of revenues (2001 – 2005) from the Volcano National Park alone. A study including other sources of tourist revenue, particularly the Akagera National Park and potential tourist attractions is required to indicate the importance of the sector to future economic growth trajectory.

Recognising the importance of environmental resources and their contribution to the national economy, the Government of Rwanda has put considerable efforts in ensuring that major national policies reflected in Vision 2020, the Strategy for Poverty Reduction (EDPRS), the Government Agenda and the decentralisation and good governance programmes take into account protection of the environment as a priority. Presently, the policy and organic law on environment are in place as well as other policies and laws including the organic

law on land; which are critical to environmental protection. More importantly, environment is treated as a sector and a cross cutting issue in the EDPRS, a five year planning and budgetary process that is envisaged to lead to national sustainable development.

## **15.2. Environment indicators and their role in poverty reduction**

Whereas the EDPRS has set goals that will promote sustainable development, key performance indicators of development that have linkage to the state of environment need to be clearly defined in order to track progress towards the attainment of these goals. Moreover, with the cross cutting nature of the environment, the indicators that have links to environmental priorities are appropriately tracked using data gleaned from sectors such as health, agriculture, energy to name just a few.

Drought was cited as a major cause of food insecurity in the 2006 Food security and Vulnerability Assessment (58% of food-insecure respondents had suffered through a drought). Urbanisation is likely to generate a new set of environmental needs, such as waste and wastewater management. To respond to these challenges, Rwanda will need to devise an ambitious and coherent response that covers all sectors of the economy, and offer an integrated strategy to deal with the management of environmental shocks including soil degradation and climatic risks, as well as with predictable consequences of population growth.

Rising population density in rural areas has placed the physical environment under increasing stress. However, there is evidence of widespread and organised response to this threat of environmental degradation. Rural households are becoming increasingly involved in soil erosion control measures such as building radical terraces, particularly in the Northern and Western provinces of the country, improving watershed management, and engaging in reforestation work.

Based on indicators for 2005/06, 60% of the rural population lived in communities that were engaged in reforestation activities, representing a 20% increase from 2000/01 levels of 40% (National Human Development Report for Rwanda. For those that replanted, the average area planted also increased 3-fold from around 4 hectares per community in 2000/01 to more than 12 hectares in 2005/06. (NHDR) 2007)

The increased involvement of the rural population in reforestation is consistent with the environmental priorities of the Ubudehe survey which were ranked as follows: tree planting, anti-erosion measures, preventing forest burning, education on the environment and caring for grazing areas.

Climate change has been regarded as the most serious environmental threats of our time on a global scale but its impacts have been made manifest at a local level. Studies such as Integrated Ecosystem Assessment (IEA) of Bugesera region in Rwanda has borne evidence that ecosystem services including water, food and fuelwood have become progressively scarce as a direct result of environmental related shocks. The study modelled on the Millennium Eco-

---

*(10) Pilot Integrated Ecosystem Assessment of Bugesera, 2006*

system Assessment, determined that ecosystem services have been declining with increasing frequencies in Bugesera in the recent past. Furthermore, prolonged droughts and the ever expanding semi arid conditions are among the dominant drivers of the observed declines and the plausible explanation is suggestive of linkages to climate change phenomenon.

### 15.3. Poverty and Environment

It is worth noting that objective poverty measures at the national level as well as subjective measures based on perceptions of poverty both demonstrate linkages to environmental degradation. One source of subjective information is the Ubudehe survey, in which communities identified seven socioeconomic clusters into which households were categorised. The distribution of respondents by these categories is presented in Table 2 which illustrates the impact of environmental degradation on poverty levels.

*Table 15-2: Major causes of poverty identified*

	<b>Share of Respondents (%)</b>
Lack of land (Kutagira isambu)	49.5
Poor soils (Ubutaka butera)	10.9
Drought/weather (Izuba ryinshi)	8.7
Lack of livestock (Kutagira itungo)	6.5
Ignorance (Ubujiji)	4.3
Inadequate Infrastructure (Ibikorwa bidahagije)	3.0
Inadequate technology (Ikoranabuhanga ridahagije)	1.7
Sickness (Uburwayi)	1.7
Polygamy (Ubuharike)	1.2
Lack of access to water (Kubura amazi)	1.1
Population pressure (Ubwiyongere bw'abaturage)	0.7
Others(Izindi)	10.6
<b>Total</b>	<b>100.0</b>

Source: MINECOFIN (2007a)

### 15.4. Environment and Agriculture indicators.

The 2006 Food Security and Vulnerability Assessment showed a strong link between food insecurity and land size (farmers with less than 0.1ha were twice as likely to be food insecure as those with 0.5ha).

In 2006, more than a quarter of households cultivated less than 0.2 ha of land. From Table 3 more than 60 percent of the respondents worked on farms that are less than 0.25 ha.

*Table 15-3. Size distribution of farms (62)*

<b>Size in ha</b>	<b>Percentage</b>
0 to 0.25	61.3
0.26 to 0.50	32.3
0.51 to 0.75	1.6
0.76 to 1	3.2
Above 1	1.6
<b>Total</b>	<b>100</b>

The overwhelming hilly topography provides a choice between people cultivating on steeper slopes, or on land previously covered by forests or wetlands. The problem of soil erosion is greatly exacerbated by the increasing pressure on the land caused by rapid population growth. Agriculture on steep slopes and clearing forested areas for agricultural purposes increasingly pose extreme challenges to protection measures against soil erosion and soil fertility losses, especially in the Northern Volcanic regions and the Central and Southern Highlands, where agriculture is predominantly conducted on steep slopes.

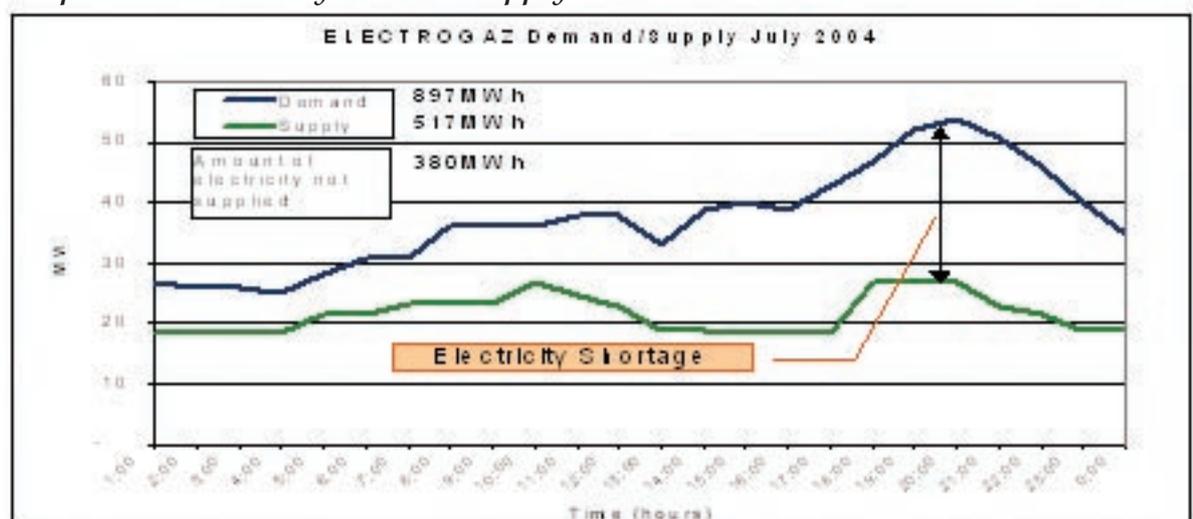
On average, 27% of land cultivation is undertaken on slopes of more than 20 degrees, 23% on slopes between 10 and 20 degrees, 16% on slopes between 5 and 10 degrees, and 34% on slopes between 0 and 5 degrees. Data show that Rwanda loses in excess of a million tons a year, which is equivalent to denying the livelihoods of 40,000 people depending on soil every year. Loss of humus is to the tune of 10.1 MT per hectare and can increase to 36 MT/ha on 5% of the soils and more than 68% MT/ha on 1% of the soils.

### 15.5. Environment and energy indicators

Population growth accounts for some of the decline in Rwanda's forest cover in recent years. There is evidence to show that gross forest cover has decreased sharply in recent years. Of primary forests, which covered 80% of the country in the past, only 5 to 8% is left. In the 1980s, the deforestation rate was 2.3% or 2,000 hectares per year, while in the mid 1990s some natural forests were destroyed because of the war and massive population displacement. Gishwati has been depleted by almost 98% and hardly 50 hectares remain .

One example of environmental degradation is the declining water levels in lakes, which provide the majority of electricity in the country. Since the beginning of 2000, the water levels of the two lakes: Burera and Ruhondo that supply Ntaruka and Mukura hydropower stations have been declining. Electrogaz needs to supply the amount of electricity given on the top graph line in Figure 1. Electrogaz is only able to supply the amount of electricity that is indicated by the line slightly below. The gap between the two lines constitutes the electricity shortage.

*Graph 15-1: Electricity Demand/Supply*



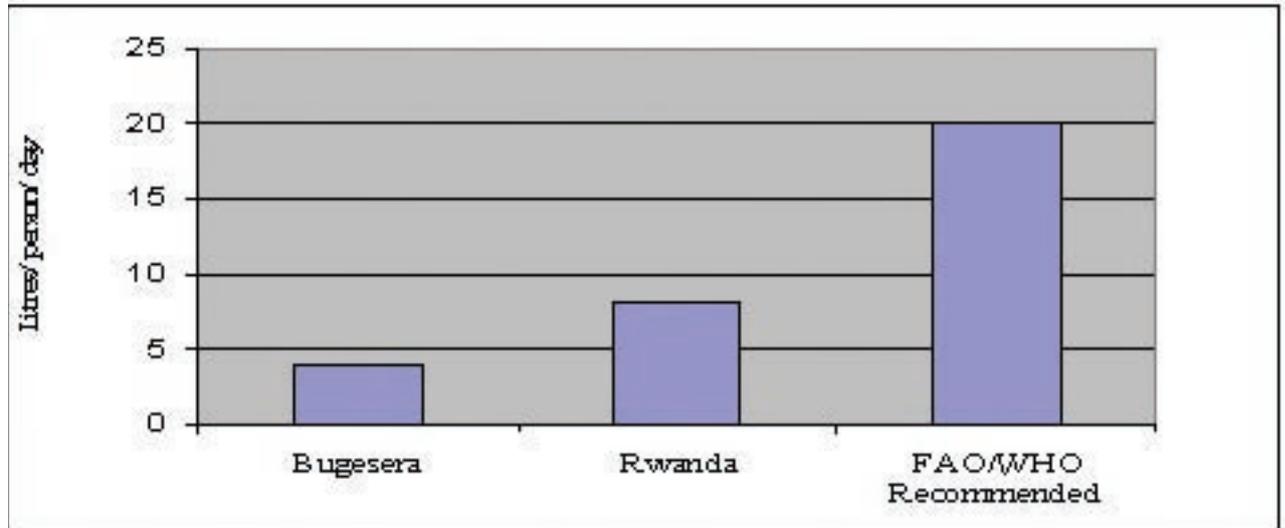
(11) Musahara, Kabenga, Musabe; Economic analysis of Environmental degradation, 2006. PEI/REMA

## 15.6. Environment and water/sanitation

Over 80% of diseases that afflict Rwandans are waterborne, so access to safe water is a precondition for improving environmental and personal health.

The reality of lack of access to water in Rwanda and more critically in regions with unbearable environmental stresses is illustrated below in the IEA study conducted in Bugesera. Some of the obvious reasons for the water stress in the region include the conversion of wetlands to agricultural lands.

*Graph 15-2: Comparison of Recommended water requirement and current Ac-*



Data Source: IEA Field Survey 2006; MINITERE 2004a

## 15.7. Environment and industrial pollution, solid and liquid waste.

The rates of urbanisation is associated with the increase in pollution loading, particularly in the City of Kigali where only 15% of liquid waste is managed by the city council and more generally, about 55% of households in urban areas have no facilities for treating solid waste.

## 15.8. Environment and disaster indicators

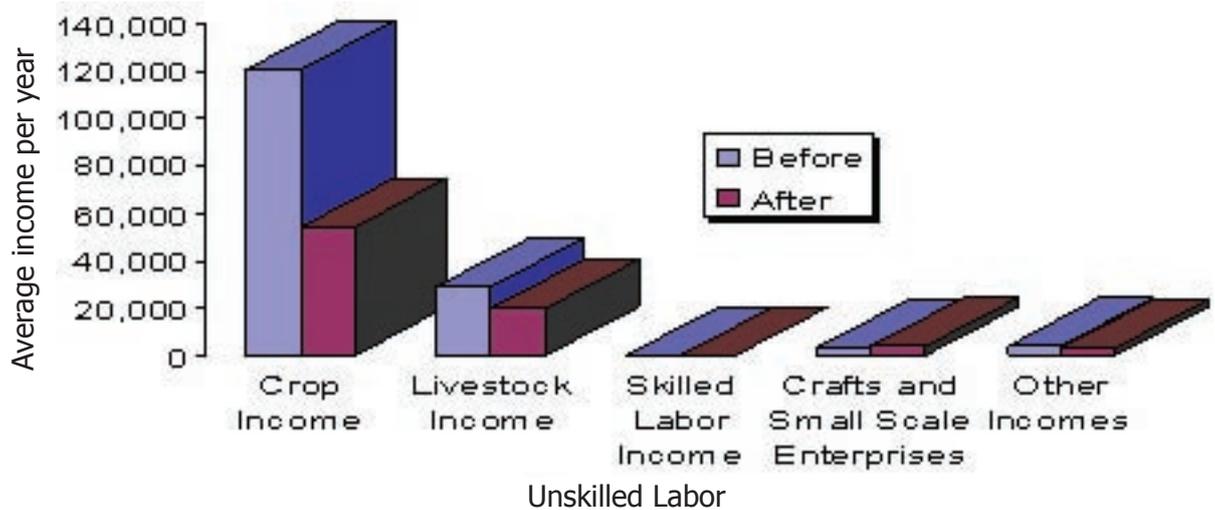
Due to substantial decline in forest cover, incidents of flooding have been on the rise and in September 2007, they caused 17 direct deaths in Bigogwe area of Rubavu District.

## 15.9. The Cost of Environmental Degradation

The adverse impacts of Rugezi degradation were demonstrated through the study on economic analysis of environmental degradation carried out under PEI (2005/2006).

The livelihoods of people living around the wetland depended on wetland resources and the study established that their incomes and general access to economic resources declined as a direct result of environmental degradation of the wetland.

*Graph 15-3. Unskilled Labour Income Before and After Degradation*



As indicated earlier tourism was and could become a major source of foreign exchange. Gishwati tourism could have been important in generating employment and income to the local population. Nyungwe Forest having the same physico-ecological features and almost the same biodiversity generate a significant amount of income from tourism. Other tourist-base incomes like accommodation, souvenirs, visa and other indirect expenditures, the revenue could increase significantly.

## 16. LOCAL ADMINISTRATION AND GOOD GOVERNANCE

Over the past ten years, Rwanda embarked on a poverty reduction process and strategies to achieve vision 2020. The key strategies are, among others:

- Setting up of well coordinated, efficient and effective administrative institutions,
- Consolidation of the national unity and strengthening national security,
- Promotion of the population well being,
- Facilitation of the development process and good management of national patrimony.

In order to achieve the objectives of decentralization and good governance and facilitate the implementation of programs and strategies, commissions and services have either been created or reinforced. These are:

- National Electoral Commission;
- National Unity and Reconciliation Commission;
- National Service of Gacaca Jurisdiction;
- Local Defense Forces;
- National Commission of Human Rights;
- Office of the Ombudsman.

### 16.1. Set up of administrative institutions

The year 2006 was characterized by the set up of administrative structures in accordance with the 2005 administrative reform. This reform provides five levels of territorial administration:

- At national level, the MINALOC is in charge of the preparation of policies, programs and fundamental principles of governance, resources mobilization to implement these programs, strengthening competencies and monitoring and evaluation of the achievements ;
- At provincial level (4 provinces and Kigali City), responsibilities are summarized in the execution of the government's programs, coordination and control of the achievements and districts' decisions ;
- At district/city's level (30 districts), authorities are mandated to prepare development plans, look for ways and means to carry out activities stated in the plan, coordinate, monitor and evaluate the achievements at sector level and non profit organizations operating in the district/city and the implementation of government's programs submitted through the hierarchy;
- At sector level, authorities are in charge of coordinating cells' actions, clarification and action programming of the sector, resolve disputes and settle conflicts;
- At cell level, authorities have the responsibility of resolving problems raised by the population, community mobilization and sensitization, cell development and dispute settlement. In each cell, the committees of Imidugudu, the lowest entity composed on average by 150 households, have been elected and all problems and disputes are settled at that level, except those that require the intervention of high level authorities.

## 16.2. Local Administration, good Governance and Elections

In Rwanda, the principle of Good Governance has to be understood in the sense to involve the whole population taking decisions of their concern. In addition to the administrative structures, specialized structures of youth and women have been created to address this desire. Their organizational structures correspond to those of the local administration. It is worth noting that youth and women have the right to be elected at other positions of administrative responsibility.

The National Electoral Commission, in collaboration with other government's institutions organized elections of local authorities in January to March 2006: Executive Committees of the Cells, Districts and City of Kigali, Consultative Council of the Sectors, Districts and the City of Kigali, Districts Bureau and the City of Kigali, Executive Committees of the National Youth Council and the merge of the Committees of the National Council of Women. Jointly, the Executive Secretaries of Sectors and their collaborators were appointed.

The annual report of this Commission proves that Rwandan citizens are more and more aware of their right to vote and their obligation to elect responsible authorities. At all electoral levels, democratic principles were respected because, at least two candidates presented themselves at every polling station and the rate of participation was above 90% for the whole process.

The participation rate for elections of Consultative Councils and the Executive Committees of the Districts is presented as follows:

*Table 16-1: Participation rate to Consultative and Executive Committees of the Districts*

N	Province/ City of Kigali	Elections of Consultative Council of the Districts	Number of voters regis- tered on the electoral list	Participation rate	Election Ex- ecutive Com- mittees of the District	Number of voters regis- tered on the electoral list	Participation rate
1	Kigali City	430,816	535,622	80.4	759	861	88.2
2	Eastern Province	843,198	856,923	98.4	2551	2686	95.0
3	Western Province	901,282	969,003	93.0	2595	2837	91.5
4	Northern Province	690,503	750,883	92.0	2164	2347	92.2
5	Southern province	894,349	1,024,214	87.3	2439	2490	98.0
	<b>Total</b>	<b>3,760,148</b>	<b>4,136,645</b>	<b>90.9</b>	<b>10508</b>	<b>11221</b>	<b>93.6</b>

Source : National Electoral Commission, Annual Report 2006

During the elections of the Consultative Councils of the Districts, only the City of Kigali and the Southern Province recorded a participation rate lower than 90%; while in the elections of the Executive Committees of the Districts, the lowest participation rate, which is 88.2%, was recorded in the City of Kigali.

During the election of 30% of women in different positions, the elections of the members of the Executive Committees of the National Youth Council, the Executive Committees of the National Council of Women and the Executive Committees of the Cells, the rates are respectively 95%, 80% and 85.7%; which is largely satisfactory for the Electoral Commission.

In the framework of consolidating the vision of governance adopted by Rwanda, the preparation and organization of the 2006 elections took into account the changes occurred during the restructuring of the administrative entities. For example, the Executive Committees of the National Women Council at all levels have not only been merged so that their organization and their functioning are mainstreamed to the new administrative structures, but also because their mandate at that time had not yet expired. The members of these committees dropped from 108,280 in 2005 to 26,010 in 2006, which represents a reduction of more than 70% from the year 2005.

*Table 16-2. Number elected by administrative level by type of election, 2006*

Administrative level	Executive Committees	Consultative Council	National Youth Council	National Women
Kigali City/Provinces	3	31	8	50
District	90	770	240	300
Sector	-	11525	3328	4160
Cell	21,500	-	17,200	21,500
<b>National</b>	<b>21,593</b>	<b>12,326</b>	<b>20,776</b>	<b>26,010</b>

Source : National Electoral Commission, Annual Report 2006

Whereas the number of members of the Executive Committees and Consultative Councils are reported for only the City of Kigali, those of the National Youth Council and the National Council of Women represent all the provinces and the City of Kigali.

The Government's will to provide the local institutions with competent personnel who can offer rapid and quality services to the population was on the agenda of the 2006 elections. One of the measures of competence was the level of education, which has been taken in account by electoral colleges in the choice of their candidates.

For example, nine tenth of members of the Executive Committees of the Districts have an academic degree against one tenth having a secondary certificate. In the City of Kigali, most of the members reached tertiary education.

*Table 16-3. Level of education of the members of the Executive Committees*

N	Province/ City of Kigali	Number of Districts	Number of the members of the Executive Committees	Number of graduate of the secondary school		Number of the graduates of university level	
				Number	Proportion	Number	Proportion
1	Eastern Province	7	21	1	4.8	20	95.2
2	Western Province	7	21	3	14.3	18	85.7
3	Southern Province	8	24	3	12.5	21	87.5
4	Northern Province	5	15	2	13.3	13	86.7
5	Kigali City	3	9	0	0.0	9	100.0
	<b>Total</b>	<b>30</b>	<b>90</b>	<b>9</b>	<b>10.0</b>	<b>81</b>	<b>90.0</b>

Source : National Electoral Commission, Annual Report 2006

Henceforth, different administrative institutions put in place - Government, private operators and non profit organizations- work in close collaboration for the development and the governance of the country. With the performance contracts signed between the President of the Republic of Rwanda and Mayors of the Districts and the City of Kigali, and their regular assessment, the main objective of the reform and durable development will be achieved. Different institutions must offer rapid, quality, less expensive and easily accessible services to the citizens and give them the possibility to participate in the governance, through free expression of their views. These contracts highlight objectives to be reached in the domains of governance, economic and social development.

### 16.3. Good Governance and Promotion of the population wellbeing

In the framework of the implementation of the EDPRS, MINALOC supports the efforts of the population in terms of means and capacities through the Community Development Fund (CDF), operational since 2002. The CDF is mandated to:

- finance development projects;
- distribute funds allocated to these projects between districts and Kigali City;
- ensure follow up of the utilized funds;
- serve as intermediary between the concerned administrative entities and donors.

The CDF coordinates two integrated development programs: High Labor Intensive - Local Development Program (PDL-HIMO) and UBUDEHE program, a process of serial training and financial support to collective action selected as priority by the population of a cell. In 2006, the PDL-HIMO programs and UBUDEHE integrated effectively the CDF. These programs have been transformed in additional units within the administrative structure of the CDF in order to strengthen the partnership between this organ and the local administration in the poverty reduction strategy, through collective actions initiated and implemented by the communities. During the year 2006, the CDF received and financed a total of 317 development projects from all 30 Districts and the City of Kigali. These projects cover several social and economic domains:

*Table 16-4: Distribution of projects financed by CDF*

Number of projects	Domain
25	productive and income generating infrastructures: modern markets and butcheries, guest houses, rooms and storage facilities;
36	Rehabilitation of unpaved roads and construction of bridges;
18	Electrification: solar energy, hydroelectric energy, connections on the existing Electrogaz networks;
73	environment: terracing;
98	construction of the Sectors and Districts offices;
17	Education infrastructure: classrooms, laboratories, houses for teachers;
5	Water
37	Surveys and surveillance
3	Health infrastructures
2	Rural telecommunication
3	Development of tourist sites

Among all these projects, only 11 were completed while 306 were in progress at the end of 2006.

### 16.3.1. Achievement of PDL-HIMO.

One of the objectives of PDL-HIMO is to contribute to the poverty reduction, through employment and income generating investments by using local resources, while reinforcing the capacities of the local government and operators. During the year 2006, PDL-HIMO intervened in agriculture, environment and infrastructure sectors: reforestation in the Districts of Bugesera and Nyaruguru, protection of the lake Karago and its wetland in Nyabihu, the protection of Urugezi wetland in Gicumbi and Burera, rehabilitation of a dam and drainage of Mushishito swamp in Nyamagabe, construction of Nyagatare Valley dam, creation of anti-erosive trenches, radical terraces and tree planting in the steep slopes of Huye, Nyaruguru, Gisagara, Nyamagabe, Karongi, Rutsiro, Ngororero and Nyabihu, rehabilitation of Gatumba-Nyagisagara-Muhororo road, water adduction from Muhabwa sources in Muhanga district and allotment of Karubanda in the District of Huye. Many other projects have benefited from technical and financial support. The program was also interested in capacity building of its beneficiary partners, by organizing in-service training for working persons and also at the HIMO training center located in KIST facilities at Remera/Kigali. In the framework of technical support to Districts, the PDL-HIMO intervenes in the preparation of bidding documents for projects approved by the board of directors of the CDF, the preparation of projects financed by CDF, the procurement procedures and technical monitoring of ongoing projects.

### 16.3.2. Achievement of UBUDEHE program

The UBUDEHE program consists in the participatory assessment of poverty by communities, identification of priorities at local level (cell) and financial support of cell's priority and two poor households, which priorities are managed completely by the recipients. In 2006, UBUDEHE program financed 8,459 projects distributed in 21 different domains.

*Table 16-5: Projects financed by UBUDEHE program by domain by Provinces/City of Kigali*

Type of projects	EAST	WEST	NORTH	SOUTH	C K	RWANDA
Livestock	1740	1621	1451	1205	317	6334
Safe water	15	131	92	126	23	387
Agriculture	11	81	63	169	5	329
Roads	9	49	75	144	11	288
Schools	83	95	74	24	2	278
Terracing	0	21	2	149	0	172
Community based medic/ sch	0	95	57	18	0	170
Microfinance	10	8	61	49	8	136
All purpose rooms	12	22	62	6	15	117
Low scale trade	35	18	14	4	40	111
Mill	13	13	11	8	2	47
Storage facilities	7	5	7	8	0	27
Electricity	0	24	0	0	1	25
Handicraft	2	1	1	2	6	12
Seed-bed	0	0	1	9	2	12
Improved kitchen	0	1	2	0	1	4
Reforestation	0	4	0	0	0	4
Pirogue	1	1	1	0	0	3
Group of danse	0	0	0	0	1	1
Public Secretariat	0	0	0	0	1	1
Telephon "Tuvugane"	1	0	0	0	0	1
<b>National</b>	<b>1939</b>	<b>2190</b>	<b>1974</b>	<b>1921</b>	<b>435</b>	<b>8459</b>

Source : Community Development Fund, Annual report, 2006

In all provinces and the City of Kigali, livestock was the most supported project to be financed. It represents 75% of all projects financed by UBUDEHE; followed by safe water, agriculture, infrastructures, health and trade with a proportion ranging from 1 to 5%.

The Western Province presented the most number of projects (25.9% of all projects financed by the program); the City of Kigali presented the least proportion with 5.1% of all projects financed by the program.

#### **16.4. Local Administration, Good Governance and Justice**

In the aftermath of the 1994 war and genocide in Rwanda, it was not possible, with the classic judicial system to judge all genocide cases in a reasonable time frame and reconcile the people.

The Gacaca Jurisdiction and the Committees of the Conciliators were created in 2002 and 2004 respectively, in order to reduce the burden of the classic judiciary. The classic judiciary handles cases that don't fall under the responsibilities of the former ones.

Whereas the Gacaca Jurisdictions handles crimes and/or massacres and other crimes committed during the 1990-94 war and genocide, the Committees of the Conciliators deal with civil business or tangible goods/land located in a cell.

This Committee is operational in every administrative cell of the country. It is in charge of providing a framework for obligatory reconciliation before the case is transferred to the jurisdictions of the first degree for civil or penal business provided by the law. The Executive Secretary is de facto the Secretary of the Committee of the Conciliators.

The Gacaca Jurisdictions are based on the gathering of the genocide events, establishment of the truth in the preparation and the execution of genocide, identification of individual responsibility of the authors, co-authors and accomplices of the genocide as well as on confession, guilty pleading and repentance, with the objective of reconciliation.

Information on crimes and massacres committed during the genocide having been assembled in 2005, Gacaca Jurisdictions tried to classify presumed guilty in different categories and during the year 2006, they judged people falling in the categories of their competence. On 30/06/2006, sentences were made for 7,015 people.

In 2006, several laws have been prepared or modified in the move to improve services rendered to the population in the domain of justice. Those laws are:

- the organic law n° 31/2006 of the 14/08/2006 governing organization, circumscription, competence and functioning of the committee of the conciliators;
- the law n°28/2006 of the 27/08/2006 modifying and completing the law n° 16/2004 of the 19/08 2004 governing organization, competence and functioning of the Gacaca Jurisdictions.

## 16.5. Local Administration, Good Governance and Consolidation of National Unity

Any democratic country respectful of the principles of good governance, must work for the people's social cohesion. Since 1999, Rwanda initiated the process of national reconciliation by creating officially the National Unity and Reconciliation Commission (NURC). This Commission is charged mainly of:

- designing and coordinating the national program for the promotion of national unity and reconciliation;
- put in place and develop the ways and means likely to restore and strengthen the unity and reconciliation of Rwandans;
- educate and sensitize the population on national unity and reconciliation;
- carry out research, organize proceedings, disseminate and publish findings on peace, national unity and reconciliation;
- formulate proposals on the best actions susceptible of eliminating divisions between Rwandans, and reinforce national unity and reconciliation;
- denounce and fight all acts, documents and speeches susceptible to circulate all form of discrimination, intolerance and xenophobia;
- report annually and at any time if needed, on the state of the national unity and reconciliation.

Concerning the design and coordination of national program for the promotion of national unity and reconciliation, the NURC prepared a draft of the national policy on unity and reconciliation. Consultative meetings regrouping all socio-professional categories of the population were organized between June and October 2006.

Recommendations on the improvement of this policy have been formulated by the participants of each category, in view of consolidation of unity and reconciliation for a sustainable development.

For the design of ways and means likely to restore and strengthen unity and reconciliation among Rwandans, the NURC organizes every 2 years a conference regrouping all categories of the Rwandan society and friends of Rwanda who experienced the same tragedy, to debate all questions related to unity and reconciliation of the Rwandans.

The 4th conference held in 2006 was an assessment of the progress made toward the consolidation of unity and reconciliation. Assessment has been made in 4 essential domains: governance, justice, economic development, social living conditions of some categories of the population (orphans of genocide heads of households, women victims of sexual violence, vulnerable groupes...).

Based on opinion research, this assessment was carried out on the application of resolutions of the national conferences held during the previous years. Target respondents to this questionnaire were District Mayors and Vice-Mayors, District and Sector Executives, Representatives of religious organizations, private sector, civil society as well as the Representatives of women, youth, security services and schools.

The results of this assessment on the implementation of the recommendations and resolutions of different conferences prove that some efforts have been made but a lot remains to be done in all domains. The overall percentage point of accomplishments varies between 63% and 74%, while the average varies between 58% in the economic domain and 74% in the justice area.

*Table 16-6. Assessment, on average, of the application of resolutions of national conferences on unity and reconciliation by District.*

N°	DISTRICT	Economy	Social living Conditions	Good governance	Justice	Unity and Reconciliation
1	Bugesera	57	62	67	69	64
2	Gatsibo	65	72	75	76	75
3	Kayonza	58	66	68	73	72
4	Kirehe	55	68	67	84	70
5	Ngoma	55	64	65	70	71
6	Nyagatare	62	67	72	91	71
7	Rwamagana	67	72	70	73	71
8	Karongi	61	68	75	75	70
9	Ngororero	57	65	68	70	64
10	Nyabihu	55	67	65	70	68
11	Nyamasheke	62	67	74	92	70
12	Rubavu	55	67	64	63	72
13	Rusizi	51	66	72	84	67
14	Rutsiro	57	62	68	66	67
15	Burera	58	65	70	69	68
16	Gakenke	59	66	65	94	70
17	Gicumbi	66	67	71	88	69
18	Musanze	56	64	70	86	69
19	Rulindo	51	61	66	85	70
20	Gisagara	55	68	71	72	67
21	Huye	55	62	65	65	67
22	Kamonyi	64	69	72	74	71
23	Muhanga	55	63	71	68	67
24	Nyamagabe	68	70	79	70	74
25	Nyanza	58	66	67	66	67
26	Nyaruguru	58	67	70	73	63
27	Ruhango	53	65	64	63	68
28	Gasabo	60	60	68	66	68
29	Kicukiro	59	62	61	64	64
30	Nyarugenge	54	59	67	65	63
<b>Moyenne RWANDA</b>		<b>58,2</b>	<b>65,6</b>	<b>68,9</b>	<b>74,1</b>	<b>68,6</b>

Source : National Unity and Reconciliation Commission, Annual Report, 2006

### 16.6. Local Administration, Good Governance and human rights.

The respect of the citizens' rights is an indicator of the quality of governance in a country. In Rwanda, an ad hoc commission was created in 1999 with the mandate to promote and protect person's rights. Whereas the activities of the National Commission of Human Rights (CNDP) focused essentially on the sensitization and education of the population on human rights, the year 2006 has been characterized, in general, by the extension of the international agreements on human rights and particularly on the rights of women and children. This sensitization was through training seminars and conferences. Categories of the population targeted by these trainings are shown in the following table:

*Table 16-7: Evolution of the number and proportions of participants in training seminars and/or conferences on human rights in Rwanda by category*

N°	Category	Year						Total
		2004		2005		2006		
		Number	%	Number	%	Number	%	
1	Local Authorities	15 221	81,7	1 104	5,9	2 294	12,3	18 619
2	Enlarged prisoners	4 514	21,7	15 198	73,0	-	-	19 712
3	Inmates	-	-	3 800	23,1	12 657	76,9	16 457
4	Secondary Students and teachers	14 278	59,0	6 192	25,6	3 748	15,5	24 218
5	Security services personnel	527	29,2	1 100	60,9	180	10,0	1 807
6	Members of Associations	597	51,1	122	10,4	450	38,5	1 169
7	Human rights Advisors	977	36,1	1 150	42,4	583	21,5	2 710
8	Judiciary services personnel	650	89,4	77	10,6	-	-	727
<b>Total</b>		<b>36 764</b>	<b>43,0</b>	<b>28 743</b>	<b>33,6</b>	<b>21 018</b>	<b>23,3</b>	<b>85 419</b>

Source: CNDP, Annual Reports, 2004 - 2006

The table above shows that some categories of the population are trained annually on human rights: local administrative authorities, secondary school students and teachers, human rights advisors, members of associations and security services.

The CNDP focuses on these categories, not only because they must know and defend their rights, but especially because they are opinion leaders who have influence in their respective communities and can be CNDP speakers in matters of human rights.

In the framework of defending human rights, CNDP received all sorts of complaints: arrest and arbitrary detention by Gacaca jurisdictions or other judicial services, violation of the survival rights, violence against genocide survivors and eyewitnesses, violence against women and girls, violation of children's rights, violation of the rights of people living in specific conditions (Pygmies), violation of property rights, etc.

*Table 16-8. Evolution and status of complaints received by CNDP during the period 2004-2006*

Category of complaints	2004		2005		2006		Total
	Number	%	Number	%	Number	%	
Completed	230	28.1	222	27.1	367	44.8	819
Ongoing examination	707	46.5	339	22.3	475	31.2	1,521
Forwarded to other institutions	275	53.4	157	30.5	83	16.1	515
Not received	212	53.7	74	18.7	109	27.6	395
<b>Ensemble</b>	<b>1,424</b>	<b>43.8</b>	<b>792</b>	<b>24.4</b>	<b>1,034</b>	<b>31.8</b>	<b>3,250</b>

Source : National Unity and Reconciliation Commission, Annual Report, 2006

The Commission did not accept some complaints (212 in 2004, 74 in 2005 and 109 in 2006), because they were not compliant with required criteria stated in the Commission rules. When analyzing the number of complaints received annually by the CNDP, there is ground to believe that Rwandan citizens, of all categories and ages, are aware of their rights and know, if needed, who can help them. During the year 2006, the proportion of solved complaints (44.8%) is higher than examined complaints (31.2%); which means that decision making institutions are aware of offering rapid services to the population.

### 16.7. Good Governance and management of the national patrimony

To fight corruption and injustice that undermine good governance in a number of countries, the Government of Rwanda created the Office of the Ombudsman in 2003. This institution is essentially mandated to:

- Prevent and fight injustice, corruption and other related infractions at public or private services level ;
- Serve as intermediary between the population and government or private administrative entities;
- Receive and examine petitions filed by the population on individual basis, and those of private associations related to civil servants activities, those of the private sector and sensitize them to look for worthwhile solutions if these petitions are relevant ;
- Receive, verify and archive annual data on real property declarations of civil servants from the top officials to low levels as well as other employees concerned by the law.

#### 16.7.1. Prevention and fight against injustice, corruption and related crimes

The prevention and fight against injustice, corruption and related crimes is the prime mission of the Office of the Ombudsman. In 2005, the Office received and followed-up files on injustice and corruption. These complaints are distributed in 4 different categories as they appear in the following table:

*Table 16-9. Evolution of the number of complaints received by the Office of the Ombudsman by category, 2005-2006*

Category of compaintes/year	Number			Proportions		
	2005	2006	Total	2005	2006	Total
Administrative Affairs	714	320	1034	69,1	30,9	100,0
Land issues	688	153	841	81,8	18,2	100,0
Judgements	617	81	698	88,4	11,6	100,0
Other complaints	641	210	851	75,3	24,7	100,0
<b>Ensemble</b>	<b>2 660</b>	<b>640</b>	<b>3300</b>	<b>80,6</b>	<b>19,4</b>	<b>100,0</b>

Source : Office of the Ombudsman, Annual Reports 2005-2006

The category of “Other complaints” comprises complaints related to FARG, NSSF, insurances companies, commercial Business, Management of heritage and succession, social affairs, etc.

In order to achieve its objective of preventing and fighting injustice, corruption and related crimes, the Office of the Ombudsman has organized sensitization meetings in the majority of sectors, in order to better help the population to know and defend its rights.

Also, it advises administrative and political authorities at all levels, leaders of the public and private institutions to better fulfill their obligations, with the goal of preventing and combating the injustice that can occur while exercising their duties.

### ***16.7.2. Link between the population and public and private institutions.***

The year 2006 having started with new administrative structures, the Office of the Ombudsman initiated the modification of the law governing the committees of the conciliators and the law governing the clerks of the courts.

The objective was to alleviate the workload of the reformed administrative entities, and empower them in order to speed up the settlement of conflicts between citizens.

A part from these two concerns, the Office serves as intermediary between the population and government and private institutions, by advising the two parties for good regulation of litigations.

As an intermediary between the population and institutions, the office visited institutions in various domains, assessed the quality of services provided to the population and gave advice to whom it may concern. In 2006, the domains of interest during these visits are education and health among others.

### ***16.7.3. Conformity of declarations of Assets.***

The distribution of forms for the declaration of assets by political authorities and other civil servants, and their physical verification has been adopted as an efficient strategy to fight the corruption in Rwanda.

This strategy allows these authorities and other accountable for public matters to separate the management of their own goods and public goods. Also, it allows the government to pursue whoever would be suspected of embezzlement or mismanagement of public goods.

During the year 2006, out of 4,132 forms distributed by the Office, 3,676 forms (89%) have been duly filed and sent back. The physical verification has been made for residential, commercial and industrial buildings, developed farms, livestock, vehicles, bank deposits and shares in companies, and, for all tangible goods, their state was judged in conformity with the declaration forms. For most of the cases, the research carried out by the Office proved that the mode

Table 16-10: Number and proportions of annual assets declaration distributed, sent back or not

Année	Distributed Foms	Returned Foms		Foms not returned	
	Number	Number	Proportions	Number	Proportions
2004	3 267	2 770	84,8	497	15,2
2005	3 490	2 523	72,3	967	27,7
2006	4 132	3 676	89,0	456	11,0

Source : Office of the Ombudsman, Annual Report , 2006

Respondents who didn't send back the assets declaration forms represent 15.2%, 27.7% and 11% respectively in 2004, 2005 and 2006. The judicial reform in 2004 and the administrative reform in 2005 are the main reasons for this situation, because most of the personnel of the judicial services and civil servants were not sure if they would be maintained to their positions and, for this fact, they didn't feel the obligation to declare their assets. For those who didn't fill the forms, the Ombudsman asked them to provide some explanations.

#### 16.8. Local Administration, Good Governance and national security

The new elected Mayors of Districts, in accordance with the 2006 administrative reform, signed performance contracts with the President of the Republic. These contracts covered four key domains that follow:

- good governance and security;
- justice;
- economic development;
- social affairs.

As far as security is concerned, there exist security committees in every sector, cell and "umudugudu ". At least once a month, these committees establish reports on the state of security in their entities and submit them to the hierarchical authorities. At the "imidugudu", the state of the security is assessed at least once a month during the meeting held after the community works "Umuganda".

Also, the sensitization of the population to ensure their security, to collaborate with police services and local administration, resulted in the reduction of crimes. It is worth noting the involvement of private security services such as KK Security, Intersec, Garsec and others that ensure the security of property and population that solicits these particular services.

The general order in the country is handled by the National Police, supported by the Local Defense Forces that are present in all administrative sectors.

The summary of infractions recorded by the police during the year 2006 is a proof of this collaboration between the population and security services.

*Table 16-11. Evolution of infractions recorded by the National Police*

<b>N°</b>	<b>Infractions</b>	<b>2005</b>	<b>Rang</b>	<b>2006</b>	<b>Rang</b>
1	Criminality	468	6	578	5
2	Sexual Violence	2 994	1	2 962	1
3	Armed robbery	113	13	113	15
4	Genocide Ideology	427	7	395	7
5	Corruption and embezzlement of public goods	182	9	253	8
6	Discriminatory Ideology	180	10	215	9
7	Drogues	1 409	4	1 570	4
8	Organized theft	1 698	3	2 251	2
9	Money Counter fact	120	12	209	10
10	Malversations	157	11	64	20
11	Non respect of engagements	274	8	186	11
12	Poisoning	109	14	85	17
13	Physical Violence	1 847	2	1 669	3
14	Non provided Checks	107	15	119	13
15	Tracts	516	5	448	6
16	Abortions	81	17	99	16
17	Destruction and building fire	13	23	149	12
18	Domestic Violation	51	21	75	19
19	Unauthorized gun possession	62	19	84	18
20	Genocide	71	18	46	21
21	Territorial integrity	62	19	43	22
22	Injures et calumnies	22	22	40	23
23	Insanities	103	16	118	14
	<b>Total</b>	<b>11 066</b>		<b>11 771</b>	

Source : National Police, Statistics on infractions at the end of 2005 and 2006

Some crimes deserve particular attention since their number remained still high even though, for some of them, the number decreased slightly. Thus, sexual violence comes at the 1st position in 2005 and 2006, physical violence and organized theft which ranked 2nd and/or 3rd, drugs occupy the 4th position in 2005 and 2006 and tracts and criminality ranked 5th and/or 6th positions. Although the destruction and building fire came in last position in 2005 with 13 cases, it passed to 12th in 2006 with 149 cases. It also deserves particular attention.

## Technical notes on RDI

### 1. National Accounts

They are estimates of the value added of different sectors (agriculture, industries and services), show the use of the Gross Domestic Product (final consumption, investments, balance of external trade...). The sources of data are mainly MINAGRI, RRA, OCIR CAFE and OCIR THE, MINECOFIN, BNR and NISR.

GDP estimates are as much as possible, in line with the concepts and conventions of the United Nations System of National Accounts 1993 (SNA93).

The production approach is used to calculate the GDP. With this approach, the value added is equal to the production less intermediate consumptions.

The gross value added of each activity is measured at "basic" prices, in other words, excluding any taxes on products (such as VAT);

VAT and other taxes on products (less subsidies) are added at the end in order to evaluate GDP at market prices; (previously only import duties were added because the other taxes were in principle included with the corresponding activity).

### 2. Agriculture

Data come from the Ministry of Agriculture and Animal Resources (MINAGRI). For each season, the MINAGRI in collaboration with the WFP, FAO and FEWSnet carries out crop assessment in order to estimate food needs over the six coming months. For the season A (September to January/February), the exercise is carried out in December/January; season B covering february to august.

Estimates from the crop assessment are related to agriculture production in tons for major food crops, area cultivated by crop. These estimates provide also the number of cattle.

### 3. Industries

Data related to industrial production come from annual surveys conducted by the National Institute of Statistics of Rwanda. The data cover the production in quantity as well as price for major industrial products.

## Technical note on PPI-M

1. Scope and content: For the purpose of these indices, manufacturing encompass all products for sale on the domestic market, as well as for the exports, corresponding to divisions 15 to 36 of the ISIC. The PPI-M will initially cover manufacturing establishments employing at least 10 workers.

2. Items and weights: These indices have fixed weight. The weights were obtained from the gross output value reported by manufacturers during the Census of Industrial Production, conducted in 2001. Gross output is evaluated at

basic prices, and thus excludes all taxes on products, namely excise duties and Value added tax. To each sample product is assigned a weight, representing its share in the total turnover for the fourth quarter 2003 as reported by the establishments.

**3. Price information:** Prices are collected by establishment. It's an ex-factory sell price received by the producer for the sample product. In general, prices are collected in the middle of each month.

**4. Reference base period for PPI\_M:** The reference period for the calculation of the PPI-M is the fourth quarter 2003. The base price for a particular product is an arithmetic mean of monthly prices of the fourth quarter 2003.

**5. Index formula:** The PPI is calculated according to the Laspeyres formula, which is the weighted average of price relatives.

$$I_c = \frac{\sum W_i * (P_{ci} / P_{oi})}{\sum W_i} * 100$$

Where  $I_c$  = Index for current month  
 $W_i$  = Weight associated with product i  
 $P_{ci}$  = Price of product i for the current month  
 $P_{oi}$  = Price for product i for the reference period.

#### 6. Uses of the PPI

The main uses of the PPI are:

- ⊙ As a leading indicator of inflationary trends.
- ⊙ As deflators for national accounting at constant prices. It allows the decomposition of the aggregates in price and volume.
- ⊙ As "escalators" to adjust prices of inputs in long term sales contracts.

**7. Dissemination of PPI-M:** The monthly PPI-M will be published in each quarter, about 8 weeks following the quarter under review.

#### 4. Services.

The main sources of data for services are ORTPN (Tourism), ONATRACOM and RRA (Land Transport), Rwanda Civil Aviation Authority (Air transport), RwandaTel, MTN RwandaCell and the National Post Office (Communication, the National Police), insurance companies.

#### 5. Inflation and exchange rate

The consumer price index is calculated by the NISR in collaboration with the NBR. Prices are collected in 13 main cities. Data validation for the City of Kigali is made at NBR, but the national index is calculated at NISR. The latter is the official source of the consumer price index. Data on exchange rate come from the NBR.

#### 6. Balance of payments

Data on the Balance of Payments are compiled by the National Bank of Rwanda, in accordance with the recommendations and definitions of the International Monetary Fund.

## 7. Money, Credit, interest rate and the financial System.

*Money* indicators and other financial indicators are calculated by the national Bank of Rwanda, following the recommendations of the IMF. Their presentation follows that of the "International Finance Statistics" established by the IMF.

## 8. Public Finance and debt

Data on Public Finance are drawn from the Government Budget, Ministry of Finance and Economic Planning. The compilation of these data follows the recommendations of the IMF. Public Finance Statistics show financial transactions of the Government, including taxes, loans and assistance in one hand and public expenditures such as salaries, acquisition of goods and services, transfers...

Like the public finance, public debt statistics are compiled by MINECOFIN.

### **Definitions.**

*What is GDP?*

Gross domestic product (GDP) at market prices is a measure of the total value added by resident producers in the production of goods and services. All taxes (less subsidies) on products, including on imports, are included. "Gross" means "before deducting the consumption of fixed capital (depreciation)". GDP at constant prices (or "in real terms") is an equivalent measure of the volume of production, in other words with inflation taken out.

What is GDP at constant prices. It stands for the GDP of the current period calculated by using the prices of the previous period. The previous period for the compilation of the GDP is the year 2001.

*Growth rate* : is simply the annual percentage change.

*GDP deflator is an indicator of the inflation.* It is calculated implicitly by dividing annual GDP at current prices by the corresponding GDP at constant prices. The GDP deflator shows price movements for all goods and services produced in the economy

GDP per capita is the sum of gross value added of all resident producers at market prices divided by the population.

**Producer price (net of deductible VAT)** The producer's price is the amount received by the producer from the purchaser for a unit of a good or service produced minus any value added taxes (VAT), or similar deductible tax, invoiced to the purchaser. It excludes any transport charges invoiced separately by the producer

**Market price:** is the amount that the vendor is willing to receive from a purchaser willing to buy.

Financial Intermediaries Services Indirectly Measured (FISIM) the total value of FISIM in the national accounts is measured as the total property income received by financial intermediaries minus their total interest payable: it excludes the value of any property income receivable from the investment of their own funds, because such income does not arise from financial intermediation. Since it is difficult to distribute the FISIM among users deemed to have consumed them, the value added of FISIM reduces the GDP of the remaining institutional sectors.

Agriculture Sector in the PIB comprises food production, forestry, fishing, la hunting and livestock.

Industry : the value added for industry sector covers the mining and quarrying, manufacturing, construction, electricity, water and gas. Data on manufacturing are disaggregated into subgroups using the International Standard of Industrial Classification.

Manufacturing is constituted by food processing, beverage and tobacco, textile and clothing, wood and wood products, paper and related paper products, chemical and petroleum products, basic metal and mineral products.

Services value added of services include all service activities, inter alia, transportation and communication, wholesale and retail trade, hotels, restaurants, banking insurance and real estate, rent of dwellings, public administration and defense, NGOs, professional, and personal services including domestic services to household, education, health care, garage, repair, and other services.

Total final consumption expenditure is the sum of private and government consumption. Government consumption data are drawn directly from the national consolidated budget, whereas the consumption expenditure by household come from household surveys with a module on consumption and expenditure.

Final consumption expenditure by government is equal to total production by public administration (value added by cost approach), minus goods and services sold at market price, minus own capital formation, plus goods and services purchased and provided to the population.

Household final consumption. It is composed of goods and services acquired by households and used by them for the direct satisfaction of the human needs and wants. It excludes the acquisition of dwellings, but includes imputed rent for owner-occupied dwellings. Private consumption is also a balancing item and incorporates change in inventories and missing data in the expenditure side of GDP.

Gross domestic investment (fixed capital Formation) includes the acquisition of new equipment goods, existing equipment goods, improvements made on existing equipment goods and the cost of property transfers. These goods can be purchased or own produced. Fixed capital covers machinery and equipment, construction (road, railways, commercial and industrial buildings, of-

ences, schools and hospitals, private residential buildings), cattle, wood of art and fruit trees, art products used for production, mining exploration, software, major repair (excluding maintenance works), land development (fences, irrigation, drains, etc.).

Fixed capital assets are durable goods that last one year at least, having significant value and the owner expects to gain advantage from them in the future.

Gross National Product is equal to Gross Domestic Product plus Net Factor Income from abroad.

Gross national savings is the sum of net factor income from abroad and net current transfers from abroad and the gross domestic savings.

Gross domestic savings are calculated as the difference between the Gross Domestic Product and total consumption.

Domestic absorption is the sum of total consumption and gross domestic investment.

Consumer price index is an indicator of the general movement of consumer prices. It reflects change in the cost of acquiring a fixed basket of goods and services between two periods.

Inflation rate is the rate of variation of the annual price index between two consecutive years.

Change over 12 months corresponds to the variation of the consumer price index of a given month of a year in comparison with the consumer price of the same month of the preceding year.

Official exchange rate (Annual Average) are compiled by the NBR. It is the average annual rate at official market in terms of Frw per unit of foreign currency.

Imports and Exports, f.o.b : these are all transactions on goods and services between residents of Rwanda and the rest of the world; they are composed of merchandises, including transfer of property, good sent for processing and repair and the non monetary gold.

Trade Balance: is the difference between exports and imports f.o.b.

Services (net) : is the difference between receipts (credit) of factor and non factor services and payments (debit) of factor and non factor services.

Non factor Services. Comprise freight and insurance, passenger services and other transport services, travel and other services. These include transactions with nonresidents by government institutions and their personnel abroad, as well as transactions by private residents with the public sector of the rest of the world and its personnel operating in Rwanda.

Factor Services. They cover labor and capital capital, including revenue paid

to non-resident workers and investment income (receipts and payments on direct investment, portfolio investment, other investment, and receipts on reserve assets). Net interest (on the public debt) is recorded on an accrual basis; that is, interest obligations are included whether payments are made or not.

Private unrequited transfers (net) refer to unrequited payment received (from private sources of the rest of the world and transferred to resident units), minus unrequited payments made to the rest of the world (from private resident units and paid to the rest of the world). Such transfers are made from the current revenue of the payer and become part of the current revenue of the recipient. They also include transfers in kind, i.e., transfer of clothing items, military equipment, gifts, transfers by migrants, etc. By definition, this heading excludes capital transfers which are destined to finance gross capital formation and other forms of accumulation, and official unrequited transfers that are intended to finance current consumption expenditures (e.g., food aid).

Compensation of employees : are private transfers insofar as the workers are nonresident (i.e., expected reside out of their home country at least one year). However, if there is evidence that some of the workers' remittances are transferred to the home country by workers residing less than one year abroad, these flows are considered as labor income in the services accounts.

Current account balance excluding official transfers is the sum of transactions that add up to or subtract from a financial stock of the economy. It is the sum of the net exports of good and services and net unrequited private current transfers. Official transfers are excluded. This may be thought of as the country's financing requirements for a given year. A negative balance shows the deficit of the current account.

Official unrequited transfers include the official unrequited transfers between the public sector of the national economy and the rest of the world, which are either grant or development assistance. They include real and financial resources under the form of grants such as support to government budget, grants for technical assistance, and government contributions to international organizations.

Capital transfers (grants) are unrequited transfers, often used to finance the deficit of the balance of payments.

Current operation Balance, including official transfers: is the sum of the current account balance excluding official transfers, plus unrequited official transfers.

Foreign direct investment (net) is the net amount invested or reinvested by nonresidents in enterprises under their control. These investments comprise all capital transactions for the purpose of the durable development of the enterprise. Direct investments include own funds investment, reinvestment of benefice and other long-and short-term capital.

Errors and omissions (net) constitutes a heading which reflects unrecorded operations in the balance of payments.

*Overall Balance*: is the sum of the current operation balance, capital operations, financial operations and net errors and omissions. It is thus the sum of disposable financing.

Interest due on public debt is the interest payment due on external public debt including short term and IMF credit, during a given year specified (before re-scheduling, debt forgiveness and arrears accumulation).

Capital of the Public sector. It is the sum of long term loans and the debt service.

*Net long-term* borrowing is the net inflows of capital including direct investment, net long term borrowing, and other long term inflows, but excluding capital grants. It is also the difference between disbursements and debt payments on an accrual basis. It is excluded in this heading private loans not guaranteed by government.

*Debt Service*: is equal to the amortization of the loan, plus payable interests.

*Private Capital (nets)* :are mainly short term private capital.

Change in net foreign reserves is net change in a country's holdings of foreign currencies resulting in transactions on the current and capital operation accounts.. This heading Includes credit to IMF and the possession of monetary gold, SDRs, the reserve position in the IMF, foreign assets and other claims on nonresidents detained by the public authorities. Also included are counterpart items, which are changes attributable to "reserve creation", i.e., the monetization and/or demonetization of gold, the allocation and/or cancellation of SDRs, and changes in the value of assets resulting in price fluctuations ("revaluation of reserves") as well as liabilities constituting reserves of the rest of the world. An increase in net reserves (i.e., an increase in gross reserves or a decrease of liabilities) is shown by negative, meaning the use of foreign reserves.

Net credit from IMF is Rwanda's net drawing other than drawing on its reserves position.

Change in gross official reserves is the sum of the monetary gold, plus Special Drawing Rights (SDRs) of the country, plus its reserve position in the IMF and foreign currencies under the control of monetary authorities.

Change in arrears is the variation of the amount due at a due date resulting in: a) debt forgiveness, other intergovernmental grants, and grants received from IMF subsidies; b) direct investments or shareholding, the debt conversion which implies the debt reduction; c) loans (including bond issuance) by the Government or the NBR; and other transactions related to debt reorganization—such as debt rescheduling and accumulation or payments of arrears.

International liquidity (million US\$) includes the value in U.S dollar of SDRs at the NBR, reserve position in the IMF, foreign currencies and the total reserves minus gold.

Total reserves minus gold. They are equal to the sum of SDRs, reserve position in the IMF and foreign currencies.

*Special Drawing Rights (SDRs)* : the SDR is the unit of currency of the IMF.

Reserve position in the IMF. It is the amount of loan awarded to a country by the IMF, but not yet used by the beneficiary country.

*Foreign currencies*: they include NBR claims on nonresidents in the form of bank deposits, treasury bills, short-term government funds, and other claims that can be used for the purpose of the balance of payments, without regard as to whether the claim is expressed in the currency of the debtor or the creditor. The data are evaluated at end-of-month exchange rate or, in the absence of official quotations, at other prevailing official rates.

*Monetary authorities*: other liabilities they are foreign liabilities of the monetary authorities other than the IMF credit (GRA), SAF, ESAF and outstanding Trust Fund loans not yet paid.

*Deposit money bank*: assets and liabilities are derived from the Deposit Money Bank section by converting Frw into US\$.

*Monetary authorities* (million of Frw) measure the creation of monetary reserve comprising money in circulation, deposits of the deposit money banks, and deposits of other residents, apart from the central government and the NBR. The data are clustered by the type of financial instrument and by economic sector. The data are generally consolidated accounts of the NBR and accounts arising from monetary functions of other financial institutions. These functions include the money issuance, the possession of international reserves and the management of the account with the IMF.

*Foreign assets*: they reflect the function of the monetary authorities as the holder of international reserves and other foreign claims. Domestic assets are classified as Claims on Central Government, Claims on Nonfinancial Public Enterprises, and Claims on other Financial Institutions. The main headings of liabilities of the monetary authorities consist of money in circulation, Foreign Liabilities, and Central Government Deposits.

*Deposit money banks'* data measure the creation of deposit money. Major aggregates of the assets are Reserves, including the holding of national currency and claims on the monetary authorities, Foreign Assets, and Claims on other Resident, as described in the preceding section on monetary authorities. The main elements of the liabilities consist of Demand Deposits, time and savings deposits, deposits in foreign currency, foreign liabilities and Government deposits. Deposit money banks comprise commercial banks and other banks with transferable deposits, such as demand deposits.

*Monetary survey measures* the size and the origin of narrow Money, which includes transferable deposits and currency outside bank system, and the Quasi-Money; liabilities of these institutions include time and saving deposits, and deposits in foreign currency.

*Foreign assets (Net)* equals to the sum of gross foreign asset as defined in the section related to monetary authorities and in the deposit money bank, minus the sum of foreign liabilities as defined in the same sections.

Claims on central government (Net) equal to claims on the Central Government as defined in the section related to monetary authorities and in the deposit money bank, minus deposits of central government as defined in the same sections, plus the counterpart of demand deposits of private sector with the National GiroBank.

Claims on other financial institutions are the sum of claims on other financial institutions as defined in the section related to monetary authorities and deposit money bank. They also include claims on other banking institutions and claims on non bank financial institutions.

Domestic credit is the sum of claims on the Central Government and other government institutions, on the private sector and other financial institutions.

Money equals the sum of fiduciary circulation outside the banking system and demand deposits other than those of the Central Government.

Quasi-money comprises time and saving deposits and residents' deposits in foreign currency.

**Note:** money (heading above) constitutes what is called M1, whereas the sum of M1 and the quasi-money stands for what is called frequently M2.

Other banking institutions: this section covers other banking institutions for which deposits are not transferable; these institutions can have liabilities such as time and saving deposits and securities for financial resources mobilization financial resources in a manner similar to the acceptance of deposits. Also are included, saving and mortgage loan institutions, saving with post-offices, real estate and loan associations, finance companies that accept deposits or the like, development banks and offshore banking institutions.

Total revenues and grants : is constituted by the sum of current revenues and external grants.

Total of domestic revenues. It is the sum of tax and non tax revenues.

Total of tax revenues is the sum of direct and indirect taxes.

Direct taxes. They include taxes on a) net revenues realized (or expected) by individuals and enterprises; b) property, such as vehicles or buildings. They include tax on interest or capital gains from the sale of land, shares and other assets.

Indirect taxes. These are the value added taxes, excise taxes and export and import taxes.

Non tax revenues. They are public non refundable receipts such as receipts from state owned domains, administrative fees, royalties, fines et penalties etc.

Foreign grants are the sum of state budget support and capital grants. They are unrequited, non refundable, non mandatory public revenues from foreign governments of international institutions.

Total spending and net lending includes both current and capital spending, minus loans, minus loan payment.

Current spending: these are the sum of current consumptions (salaries of civil servant and military and the consumption of goods and services by the government), interest of external and domestic public debt, current transfers, subsidies and current spending.

Wages and salaries consists of payment in cash made to employees in compensation of services provided by them, before the deduction of all form of taxes and employees' contribution to the National Social Security of Rwanda and to the pension fund.

Purchase of goods and services include all government payments in exchange of goods and services.

Interest payments are interest payment on borrowed money (or capital) to residents or nonresidents (foreigners). It should be noted that the payment of the principal is shown as a financing item, and paid commissions are shown as acquisition of services. Interest payments do not include government payments which guaranteed the debt payment by other economic actors, which are classified as government lending.

Subsidies and transfers include all unrequited, non refundable transfers on current account of the private and public enterprises and other cost covering the cash operating deficits of public enterprise.

Exceptional spending includes spending on military demobilization, retirement and reinsertion program of teachers, military and medical personnel and funds for genocide survivals.

Capital expenditure are spending for the acquisition of fixed capital assets, land, intangible assets, government stocks, and nonmilitary and non financial assets. Also included are capital grants to nonresidents.

Savings excluding interest payments is the difference between total domestic revenues and total current spending excluding interest payments. The deficit is shown with a minus sign.

Savings without grants is the difference between total domestic revenues and total current spending. The deficit is shown with a minus sign.

Savings with grants is saving without grants plus foreign grants. The deficit is shown with a minus sign.

Deficit without grants is the saving without grants minus capital spending, minus net lending.

Deficit with grants is the saving with grants minus capital spending, minus net lending.

Overall Deficit (cash basis): it is equal to the deficit with grant, plus change in arrears.

Financing: it is the disposable domestic or external financing. When added up to the financing gap, it is equal in absolute value to the overall contraire, au deficit (cash basis).

Financing Gap : It is the sum of the overall deficit and disposable financing.

Public Debt. It is the long term public debt or government guaranteed debt, which is the sum of long-term public external debt, including the government, public enterprises and autonomous public bodies; and debt of private sector for which the payment is guaranteed by the government.

Domestic Debt: It is equal to the sum of all public loans received from residents of the country, such as the NBR, commercial banks and non banking institutions. It is a long term public debt or government guaranteed debt.

Debt Service (million of USD). It is the sum of the amortization and interest payments of external public debt.

Use of IMF Credit is the amount deducted from the reserve position in the IMF at the end of a given year

*Aid flows.* The data sources are MINECOFIN and BNR and they are consistent with balance of payments and national accounts.

*Total official assistance* is total assistance from abroad both in terms of development and humanitarian assistance.

ODA (Official Development Assistance) consists of financial flows destined to promote economic development and the well being. It comprises grants and loans that meet the DAC definition of ODA and are made to Rwanda. It covers grants and loans, according to the definitions given official development assistance by the development assistance committee of the Organization of Economic Development and Cooperation in Europe (OECD). These loans and grants are granted to Rwanda.

DAC : Development Assistance Committee of the Organization of Economic Development and Cooperation in Europe (OECD). Currently, member countries of the OECD are: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italia, Japan, South Korea, Luxembourg, Mexico, Holland, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Suisse, Turkey, United Kingdom, and the USA.

*Bilateral/multilateral grants.* They are unrequited transfers in cash or in kind.

*Bilateral/multilateral loans* consist of loans (with a grant component of at least 25%) payable in convertible currency or in kind.

Life expectancy at birth is the average number of years a new born would live if mortality patterns prevailing at the time of its birth were to stay the same throughout his lifetime.

Access to health care is measured by the proportion of the population who can undergo treatment for diseases and injuries, including essential drugs appearing on the national list, within one hour of walk.

Access to safe water shows the proportion of the population with reasonable access to adequate amounts of safe water (including treated surface waters or untreated but without contamination, from spring and protected boreholes). In urban area such a source may be a public tap or water source located at 200 meters or less. In rural areas access implies that members of the household do not have to spend a great part of the day fetching water.

Access to sanitation facilities refers to the proportion of the population having around it, facilities that can prevent human, animal and insect with excreta.

Child immunization measures the rate of immunization coverage of children under one year of age against four diseases—measles and DPT (diphtheria, tuberculosis and tetanus). A child is immunized against measles after receiving one dose of vaccine, and against DPT after receiving two or three doses of vaccine, according to the immunization scheme.

Assisted delivery by health personnel is the percentage of deliveries assisted by trained health personnel to supervise, care and advise women during their pregnancy.

Adult HIV-1 seroprevalence is an estimate of the proportion of a country's adult population (age 15 and older) infected with HIV.

Infant mortality rate is the number of children dying before reaching their first birthday for 1000 live births, for a given year.

*Adult mortality rate* is the probability of dying between 15 to 60 years of age, it means the percentage of the population aged 15 years or above, dying before reaching their sixty first birthday.

*Prevalence of child malnutrition* is the percentage of under-five children whose weight for age is less than 2 standard deviations below the average of the reference population. Weight for age is a composite indicator of weight for height and height for age.

*Contraceptive prevalence rate* represents the proportion of women of 15 to 49 years of age practicing, or whose husbands are practice any form of contraception.

*Maternal mortality rate* is the number of women dying during pregnancy or delivery for 100,000 live births.

*Primary school enrollment rate* is the estimate of the proportion of children of all ages enrolled in primary school in the country over the total children at school age.

*Secondary school enrollment rate.* This indicator is calculated in the same way as in primary school, but the definition of secondary school age differs by country. The school age for secondary school is most commonly considered to be 12 to 17 years

of age. Late entry of students as well as redoubling can increase this ratio.

Tertiary school enrollment rate. The ratio is calculated by dividing the number of students enrolled in all postsecondary schools and universities by the population aged 20 to 24, although people above or below this age group may register in tertiary institutions.

Percentage of cohort reaching grade 4 is the proportion of pupils who, for example, are enrolled in primary school in 1980 and 1990 who continued to the fourth grade by 1983 and 1993, respectively.

Illiterate adult population is defined as the proportion of the population aged 15 years or above who cannot neither read nor write a short and simple sentence during their lifetime.

Primary school pupil-teacher ratio is the number of pupils enrolled in primary school divided by the number of primary school teachers.

Gross enrollment ratio is the ratio of total enrollment, regardless of age group at a given level of education.

Primary provides the basic education at elementary or primary school. The duration of primary education is the minimum number of years a child is expected to complete primary education.

Secondary provides general or specialized instruction at middle, secondary, or high school, teacher training school, and vocational or technical schools ; the minimum duration being four years.

Net enrollment rate is the ratio of the number of children of official schooling age enrolled in school to the total number of children of official school age.

Female pupils as % of total pupils includes enrollments in public and private schools but exclude certain specialized schools and training centers.

Land area is total area of Rwanda measured in square kilometers and comprises lakes.

Arable land refers to the total cultivable land.

Rural population density is the rural population divided by the arable land area.

Cultivable land includes land used to cultivate temporary and permanent crops, pastures meadows. Permanent crops are those that do not need to be replanted after each harvest, excluding tree plantations.

Permanent pastures is the land used for forage for a minimum period of 5 years, excluding natural crops.

Other land includes natural forests and woodland, non cultivated lands, grasslands not used for pasture, and land on which are built residential buildings,

roads and others.

Forests refer to natural stands of tree plantation vegetation and predominant trees.

Annual deforestation refers to the conversion of forest area to other uses, including permanent agriculture, ranch, housing or development infrastructures. Deforestation results in tree cutting for cooking wood, acid precipitation or fire wood. The extent of deforestation refers to the total annual deforestation of natural forest.

Protected areas refers to areas of at least 1,000 hectares as scientific and natural reserves and strict nature reserves, national parks of national and international reputation, natural monuments and landscapes.

Loss of water reserves refers to total quantity of water for domestic or industrial use, excluding water evaporation and water loss from water tanks.

Loss of water reserves per capita is calculated by dividing a country's total loss of water by the total population during the year for which these estimates are available.

Total energy use refers to domestic use of energy before transformation for other (such as electricity and refined petroleum products); it is calculated as domestic production plus imports and change in inventories, minus exports.

