BASIC EDUCATION SECTOR ANALYSIS REPORT

- RWANDA -

AUGUST 2012

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

INTERNATIONAL DEVELOPMENT CENTER OF JAPAN INC. (IDCJ)

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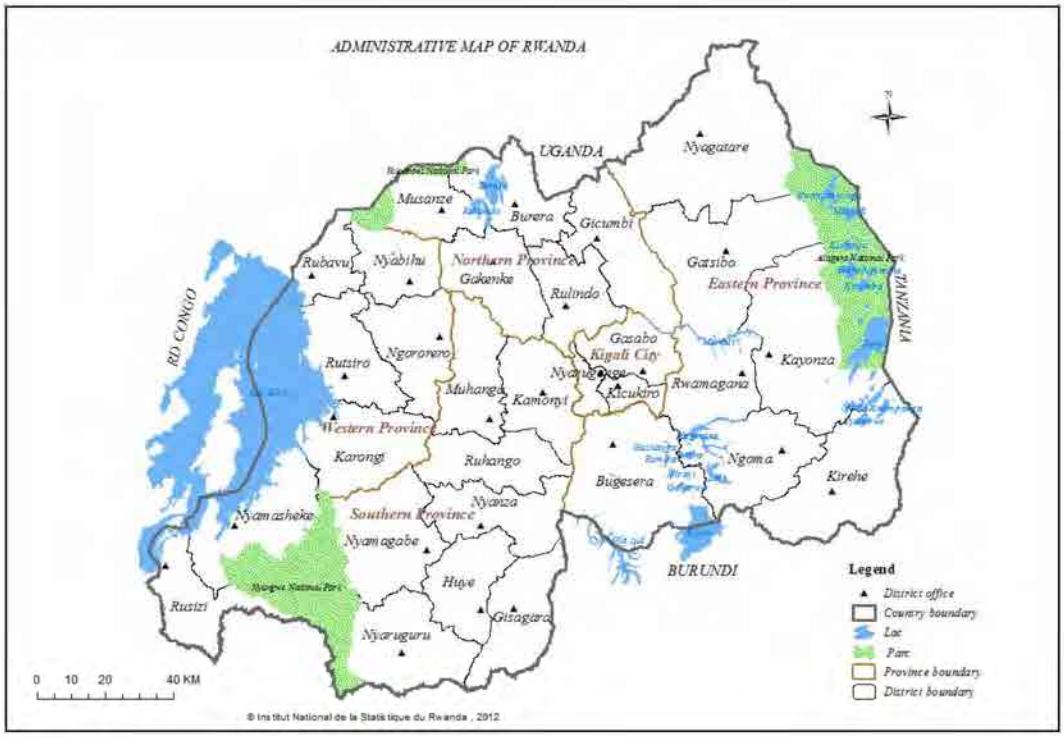

(Source: NISR, 2012)

Map of Rwanda

Abbreviations

AfDB:	African Development Bank
BTC:	Belgium Technical Cooperation
CDRF:	Capacity Development Results Framework
COE:	College of Education
CPAF:	Common Performance Assessment Framework
CSEN:	Children with Special Education Needs
DEO:	District Education Officer
DEO:	District Education Office
DFID:	Department for International Development
DHS:	Demographic and Health Survey
DoL:	Division of Labour
DP:	Development partner
DPCG:	Development Partners Cooperation Group
EAC:	East African Community
ECD:	Early Childhood Development
EDPRS:	Economic Development and Poverty Reduction Strategy
EFA:	Education for All
EICV:	Household Living Conditions Survey or Enquête Intégrale sur les Conditions de Vie des ménages
EGRA-EGMA:	Early Grade Reading and Mathematics in Rwanda
ELT:	English Language Training
EMIS:	Education Management Information System
ESSP:	Education Sector Strategic Plan
FTI:	Fast-Track Initiative
HIV:	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
GS:	General Secondary
GDP:	Gross Domestic Product
GER:	Gross Enrolment Rate
GNI:	Gross national income
GPE:	Gross Enrolment Rate
ICT:	Information and Communication Technology
IDCJ:	International Development Center of Japan Inc.
INSET:	In-Service Education of Teachers
JICA:	Japan International Cooperation Agency
JRES:	Joint Review of the Education Sector
KIE:	Kigali Institute of Education
LARS:	Learning Achievement in Rwandan Schools
LTSFF:	Long-Term Strategy and Financing Framework

MDGs:	Millennium Development Goal
MINALOC:	Ministry of Local Government
MINECOFIN:	Ministry of Finance and Economic Planning
MINEDUC:	Ministry of Education
MTEF:	Medium Term Expenditure Framework
MoU:	Memorandum of Understanding
NCDC:	National Curriculum Development Centre
NER:	Net Enrolment Rate
NISR:	National Institute of Statistics of Rwanda
9YBE:	9 Years Basic Education
ODA:	Official Development Assistance
ODI:	Overseas Development Institute
OECD:	Organisation for Economic Co-operation and Development
PISA:	Programme for International Student Assessment
PNA:	Peace-building Needs and Impact Assessment
PRESET:	Pre-Service Training
PRSP:	Poverty Reduction Strategy Paper
PTA:	Parent-Teacher Association
REB:	Rwanda Education Board
RWF:	Rwandan Franc
SACCO:	Savings and Credit Cooperative
SACMEQ:	Southern and Eastern Africa Consortium for Monitoring Education Quality
SEO:	Sector Education Officer
SMASSE:	Project for Strengthening Mathematics and Science in Secondary Education
SPIU:	Single Project Implementation Unit
SWAps:	Sector Wide Approaches
TOT:	Training of trainers
TTC:	Teacher Training College
TSC:	Teacher Service Commission
TVET:	Technical and Vocational Education and Training
12YBE:	12 Years Basic Education
UNAMIR:	United Nations Assistance Mission for Rwanda
UNDP:	United Nations Development Programme
UNICEF:	United Nations Children's Fund
UNFPA:	United Nations Population Fund
USAID:	United States Agency for International Development
VUP:	Vision 2020 Umurenge Programme
VVOB:	Flemish Association for Development Cooperation and Technical Assistance
WBI:	World Bank Institute
WFP:	World Food Programme

Executive Summary

Chapter 1: Outline of the Study

As the target year of the Millennium Development Goals (MDGs) and Education for All (EFA) approaches, non-traditional forms of aid modalities such as SWAps and general budget support are progressively tested and used in providing aid. In this context, the Japan International Cooperation Agency (JICA) has commissioned a study to carry out a comprehensive and in-depth analysis of the education sector in 13 countries in Sub-Saharan Africa and Latin America[1] so that more strategic and effective programs/projects can be formulated. The purpose of the study is twofold: 1) to gather relevant data and information, analyze them, and to identify priorities in the education sector in each country, and 2) to propose how to improve the quality and the methodologies of JICA's analysis on basic education.

Chapter 2: Political and Socio-economic Situation in Rwanda

After the independence in 1962, Rwanda has suffered from repeated internal conflicts among groups of different ethnic and socio-economic backgrounds. In 1990, the Rwanda Patriotic Front (RPF), whose forces were primarily composed of Tutsi refugees in Uganda, invaded Rwanda, which provoked a war with the Hutu regime led by the President Juvenal Habyarimana. In April, 1994, when the airplane of the President Habyarimana was shot down, it triggered genocide, in which, extreme Hutus massacring 800,000 to 1 million Tutsis and moderate Hutus during the course of 3 months. In July, 1994, after the RPF ceased the genocide, a new political regime was established, with Paul Kagame as the Vice President. In August, 2003, a Presidential election was carried out and Paul Kagame was elected the President. Now, the President Kagame (re-elected in 2010) puts strong emphasis on the fight against corruption, and Rwanda fairs well in terms of less corruptions and good security in the region. The recent economy growth rate is maintained at around 7%.

Chapter 3: Educational Policies and Reforms

In July, 2003, the Education Sector Policy was issued. In the Policy, the mission statement is described as follows, "the global goal of the Government of Rwanda is to reduce poverty and in turn to improve the well-being of its population. Within this context, the aim of education is to combat ignorance and illiteracy and to provide human resources useful for the socio-economic development of Rwanda through the education system".

When the Nine Years Basic Education policy (9YBE) was introduced in 2006, the free and compulsory basic education was expanded from 6 years covering Primary 1 (P1) to Primary 6 (P6) (school age 7 to 12 years old) to encompassing 9 years covering Primary 1 (P1) to Senior 3

[1] The target countries are Kenya, Ethiopia, Uganda, Rwanda, Malawi, Zambia, Cameroon, Senegal, Mali, Niger, Burkina Faso, Guatemala, and Nicaragua.

(S3) (school age 7 to 15 years old). The basic education was made free of charge in 2003/04 and the free 9YBE was implemented from 2007. In 2012, basic education was extended to 12 years. During the presidential election campaign in 2010, President Paul Kagame, who were re-elected the President, made a pledge to ensure the 12 Years Basic Education (12YBE) policy in Rwanda. According to the Economic Development and Poverty Reduction Strategy (EDPRS), the high level objectives for education are to improve and increase: 1) Access to education for all, 2) Quality education at all levels, 3) Equity in education at all levels, 4) Effective and efficient education system, 5) Science and technology and ICT in education, and 6) Promotion of positive values, critical thinking, Rwandan culture, peace, unity and reconciliation.

Chapter 4: Status and Challenges of Basic Education Sector Development

[Access] Since the launch of the Nine Year Basic Education Policy in 2006, expanding free and compulsory education to 9 years, the enrollment rate from Primary 1 up to Senior 3 has improved remarkably. The primary national net enrollment rate improved from 73.3% in 2000/01 to 95.9% in 2011. The gross enrollment rate of secondary education rose from 16.6% in 2005 to 35.5% in 2011, marking slightly above the African average of 35.3%.

[Internal Efficiency] Between 2000/1 and 2008, there were improvements made in terms of promotion rate, repetition rate, and dropout rate. Especially, the progress made in reducing the primary repetition rate is significant. In primary education, repetition rate from P1 to P6 has dropped from 17.7% in 2007, to 13.0% in 2010. In secondary education from S1 to S6, the repetition rate has decreased from 6.0% in 2008, to 3.8% in 2010. The secondary dropout rate has also dropped from 9.6% in 2008, to 7.4% in 2010.

[Equity] The Gender Parity Index, in 2006, for primary education was 1.00, for lower secondary at 0.98, for upper secondary at 0.74, and for higher education at 0.67. The gender parity tends to deteriorate as students climb up the education ladder.

[Learning Outcomes] Thanks to the improvements in reducing dropout rates, the completion rate for P1 to P6 has also ameliorated. The completion rate was 24.2% in 2000/01, and in 2010, rose up to 78.6%. The gender-disaggregated data show that 75.1% of boys and 81.8% of girls have completed the primary education in 2010, girls outperforming boys. In order to systematically assess and improve learning achievements, the Rwanda Government has started to pilot initiatives to assess learning achievements with the support of development partners. The results of those initiatives show that still certain portions of students do not meet the learning achievement criteria set out in Rwanda's national curricula.

[Learning Environment] In 2011, the national average of the number of pupils per classroom, for primary education is 81, and for secondary education, it is 42. As the enrollment rises to fully implement 9YBE and 12YBE, the construction of new classrooms are not catching up with the pace to achieve the number of pupils per classroom coming down to 55 by 2015, a goal set by the Ministry of Education (MINEDUC). The regional statistics show that for primary

education, the Eastern Province has the highest number of pupils per classroom (84) in 2011, followed by the Northern Province (83), the Southern Province (81), the Western Province (81) and the Kigali City (71). Annual teaching hours are calculated to be 900 hours with a single shifting system, and 720 hours with a double shifting system. However, the basic infrastructure in school is still lacking. Access to safe drinking water has been improved, although the level of electrification is still low especially in the rural areas.

[Textbook Distribution System] MINEDUC aims to distribute one textbook per pupil for the core subjects in primary schools, and this is almost achieved. In secondary schools, this is not yet the case. In some science subjects, there is one textbook shared with two pupils, but in subjects such as history, this ratio is not being accomplished. Procurement and distribution of textbooks have been decentralized, and this has been a good success. Presently, the District Education Office coordinates and schools themselves decide and purchase textbooks according to their specific pedagogical demands.

[Curriculum] The Curriculum & Pedagogical Materials Department of the Rwanda Education Board (REB) carries out syllabus review every 3 to 4 years and curricula revision every 5 years. The curricula were revised to respond to the change of language of instruction from French to English, and this process is almost completed. The Department also has a role to ensure textbooks and reading materials related to the curricula are available for procurement by schools.

[Teaching Staff] Due to the shortage of number of teachers and classrooms, double-shifting (and triple-shifting) is applied. There is a major improvement to be made in terms of the pupil teacher ratio. In lower secondary education, only 64.4% of teachers are qualified out of 13,206 teachers. The quality of teachers also needs to be enhanced.

Chapter 5: Public Finance and Administration in the Education Sector

MINEDUC is the central organ for the administration of education in Rwanda. The local administration of education is decentralized to the 30 District Education Offices (DEOs) located in the district administration offices headed by respective Mayors. The education sector is experiencing a decentralization process since 2000, and more progressively since 2006. Sets of duties and authorities of MINEDUC are being devolved to Districts, Sectors, schools, and to some extent to communities. So far, the decentralization in the education sector has overall contributed to improved delivery of services.

MINEDUC is demonstrating strong ownership in policy formulation and its implementation in the Sector. MINEDUC holds regular and open consultation processes with various stakeholders including the development partners. The capacity of MINEDUC to coordinate inputs from relevant stakeholders is relatively high. According to Transparency International, the Rwandan Government's Corruption Perceptions Index is 5.0, ranking 49th out of 182 countries surveyed. This places Rwanda the 4th in ranking among 53 African countries.

However, the capacities at District level are yet to be strengthened in terms of planning, monitoring, and financial management. It is also pointed out that there is a lack of internal auditing mechanism for budget execution at the District level. There is further need for capacity building and training programmes for DEOs at District and Sector Education Officers (SEOs) at Sector level.

The percentage of total education spending of GDP has fluctuated between 3.7% and 4.1% between 2005 and 2008. However, when considering the spending out of government revenues net of grants, the allocation to the education sector has decreased since 1996. In 2009/10, the largest portion of the education expenditure was allocated to primary education (39.4%) followed by lower secondary education and higher education. In 2009/10, 23% of the sources of funding came from donors.

Chapter 6: Trends in Donor Assistance

In 2006, a Memorandum of Understanding (MoU) was signed highlighting the critical importance of harmonization among donors. The Rwandan Government, especially, the Ministry of Finance and Economic Planning (MINECOFIN) emphasizes that general budget support is the most preferred modality of assistance in Rwanda. However, at the same time, line Ministries including MINEDUC also recognize the value of contributions by project-based assistance. Projects are not eliminated as aid modality in Rwanda, and a donor providing project-based assistance is also a signatory of MoU. For instance, JICA's assistance is primarily project-based, and it is still designated as an active donor within the Division of Labour (DoL) framework.

Chapter 7: Results of Analysis

In comparison with basic education sectors in 10 other countries of Sub-Saharan Africa, Rwanda provides better access to primary education, though there are major improvements to be made in terms of the repetition and dropout rates, pupil teacher ratio and access to secondary education. As Rwanda does not take part in international or regional learning achievement tests, it is not possible to make comparisons with other countries in the region. However, the results of LARS and EGRA & EGMA show that still a large portion of students do not meet some of the learning achievement criteria set out in Rwanda's national curricula. When comparing educational indices of Rwanda and the EFA-FTI Educational Framework, the major problems of Rwanda are that: the pupil teacher ratio in basic education is high, dropout rates and repetition rates are high, and annual hours of instruction are insufficient.

The education sector in Rwanda has been experiencing series of reforms such as the decentralization processes starting from 2000, the launch of nine year basic education in 2006, the initiation of the Nine Years Basic Education Implementation Fast Track Strategies in 2008, shift of medium of instruction from French to English, and eventually the reform to extend basic education to 12 years. Especially, the changes brought about by the shift of medium of

instruction from French to English and the Nine Years Basic Education Implementation Fast Track Strategies, are posing schools and teachers to make substantial adjustments on the ground. The majority of teachers are educated in French, and their command of English language is not yet high. While aggressively pursuing new reforms in the education sector, it is important to maintain the quality of education and to carefully manage the period of transition.

Since early 2000s, the enrollment rates have improved steadily. However, the repetition rates and the dropout rates are still relatively high. In order to improve internal efficiency, it is important to enhance the quality of education. There is a need to systematically analyze the underlining causes of repetitions and dropouts, and take appropriate policy measures. In order to ensure quality of education, it is important to strengthen the national system to measure learning achievement. In doing so, considerations should be made not to put undue emphasis on examination marks only.

The pupil-teacher ratio is high. This causes less contact time by teachers with the pupils. With the introduction of double-shifting, the average teaching hours for teachers are at 6.5 hours / day. The teaching hours are increasing, though the rate of salary rise is very little. Especially, in remote rural areas, the number of teachers is relatively low. This even makes the workload per teacher heavier. In primary education, due to the introduction of subject specialization instead of class based teaching, teachers may know less about each pupil, which could increase disciplinary problems and adversely affect learning outcomes.

Improvements are made in addressing gender disparities. For instance, under MDGs, the ratio of girls to boys in primary education is above 1. However, girls' learning achievements are relatively lower than those of boys in the grades of the national examinations. The dropout rates are also higher for girls.

In order to address these critical issues, out of the seven strategic priorities outlined in the Education Sector Strategic Plan (ESSP) 2010-2015, the most critical issues observed for policy attention by this study are: 1) Improving completion and transition rates whilst reducing dropout and repetition in basic education; 2) Developing a skilled and motivated teaching, training and lecturing workforce; 3) Ensuring equity within all fields and throughout all levels of education and training, and 4) Strengthening the institutional framework and management capacity for effective delivery of education services at all levels.

The study has given rise to some points of considerations and has identified some of the challenges in conducting a sectoral study in the education sector. The issues to note are with regard to: 1) Analysis of causal relationships of key performance indicators; 2) Responding to the country specific and unique aspects within the country study; 3) The implication of conflict and peacebuilding; 4) The need to analyze the data below sub-national level for the study and 5) The importance of cross-sectoral perspective and analysis.

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CHAPTER 1: OUTLINE OF THE STUDY

1.1 Background

To attain the goals of Education for All (EFA) and Millennium Development Goals (MDGs) by the 2015 deadline, the developing countries have been engaged in quantitative and qualitative improvement in basic education in collaboration with the cooperating partners (CPs). For some developing countries, reaching all of these goals by the target year still remains challenging. In the area of basic education improvement, sector-wide approaches (SWAps) have been more emphasized through direct budget support rather than through project-type interventions. There have been growing concerns in the limited capacity of the developing countries in planning, budgeting, implementation, and monitoring and evaluation, which might negatively affect aid effectiveness and transparency.

Japan International Cooperation Agency (JICA) has provided various project-type and/or program-type interventions, including technical assistance, classroom construction, education equipment procurement etc., in line with the education sector program of the developing countries. In order to implement more strategic and effective cooperation in this challenging environment, JICA has decided to conduct the Basic Education Sub-Sector Study (hereinafter, the Study) and to understand the whole picture of the basic education development to formulate more comprehensive effective programs/projects based on the deepened analysis of the administrative, financial and socio-economic contexts as well as of the educational indicators and statistics.

1.2 Objectives of the Study

The Study, through data collection and analysis of the 13 target countries chosen from the Sub Sahara Africa and the Central America, and comprehensive and comparative analysis, aimed to (1) collect and analyze general information in the basic education sub-sector and identify priority areas for development in target countries and (2) make recommendations for JICA to design and carry out any future sector and/or sub-sector study.

1.3 Basic Approaches of the Study

The Study was conducted with the following basic approaches:

(1) Information gathering and analysis were to be done from the viewpoints of *equity*; *administrative and financial capacity*; and *internal efficiency*, in addition to *quality* and *access* of the basic education. Key questions, which were identified for each target country through the preliminary document review, were also tackled to find updated information.

(2) Problems and structural deficiencies of the basic education sector in each target country were to be identified and priority development needs and strategies were to be listed.

(3) Recommendations for JICA to improve future sector study through comprehensive and comparative analysis of the country analyses results.

1.4 Target Areas/Countries

The following 13 countries were chosen as the target countries, where there were on-going programs/projects in the basic education sub-sector and program/project formulation was to be planned in the near future.

Sub-Saharan Africa (11 countries)	Burkina Faso, Cameroon, Ethiopia, Kenya, Malawi, Mali, Niger, Rwanda, Senegal, Uganda, and Zambia
Central America (2 countries)	Guatemala and Nicaragua

The field survey in Mali was cancelled due to the coup d'état in March 2012. The basic education sub-sector analysis report of Mali was prepared based on the data collection and analysis in Japan.

1.5 Major Steps and Schedule

Information collection and analysis was conducted, according to the standard research items and indicators (Annex 1-1) listed in JICA's "Standard Research Items and Methodology of the Education Sector Analysis" (drafted as of October 2011). Major steps and schedule of the Study were as follows.

February - April 2012: Formulation of Inception Report
- Analysis of existing documents of the government agencies, international development partners, international organizations etc.
- Preliminary information gathering in Japan and discussion with JICA officers in charge of the target countries.

February - May 2012: Preparation of Field Survey
- Preparation of the field survey schedule and making appointments
- Preparation of the field survey plan and strategies
- Identification of lacking data and preparation of the questionnaires

March - June 2012: Conducting of Field Survey
- Information gathering from government agencies, international development partners, international organization, and JICA office etc.
- School and project site visits

May - June 2012: Drafting of Basic Education Sub-Sector Analysis Reports by Country

July 2012: Formulation of Final Report
- Comprehensive and comparative analysis of the country reports and preparation of recommendations
- Report preparation

1.6 Study Team

Information gathering, analysis and report writing of the Study were conducted by the Study team as listed in Table 1-1. The field survey and data analysis for Rwanda was conducted by Ms. Miko Maekawa, International Development Center of Japan Inc. (IDCJ).

Table 1-1：Team Members of the Study and the Countries in Charge

Position	Name（Affiliation）	Country in Charge
Team Leader /Comprehensive Analysis of the Basic Education Sector	Yoko Ishida (IDCJ)	Malawi, Uganda, Zambia
Administrative and Financial Analysis	Hiromitsu Muta (IDCJ)	Guatemala, Nicaragua
Basic Education Sector Analysis 1	Naomi Takasawa (IDCJ)	Cameroon, Niger
Basic Education Sector Analysis 2	Emi Ogata (IDCJ)	Senegal
Basic Education Sector Analysis 3	Yoko Takimoto (Recycle One, Inc.)	Ethiopia, Kenya
Basic Education Sector Analysis 4	Miko Maekawa (IDCJ[2])	Rwanda
Basic Education Sector Analysis 5	Chie Tsubone (Global Link Management, Inc.)	Burkina Faso, Mali
Administrative Coordination/ Assistance for Sector Analysis1	Michiru Yabuta (IDCJ)	
Administrative Coordination/ Assistance for Sector Analysis2	Mana Takasugi (IDCJ)	

[2] The affiliation was changed from IDCJ to University of Tokyo in April 2012.

CHAPTER 2: POLITICAL AND SOCIO-ECONOMIC SITUATION IN RWANDA

2.1 Political Situation

Since before its independence of in 1962, Rwanda has suffered from repeated internal conflicts among groups of different ethnic and socio-economic backgrounds. The conflicts were observed among the majority Hutu (85% of the population) and the minority Tutsi (14% of the population). In 1990, the Rwanda Patriotic Front (RPF), whose forces were primarily composed of Tutsi refugees in Uganda, invaded Rwanda, which provoked a war with the Hutu regime led by the President Juvenal Habyarimana. In August, 1993, the Arusha Peace Accord was agreed, and the United Nations dispatched the United Nations Assistance Mission for Rwanda (UNAMIR) to supervise the truce. However, in April, 1994, when the airplane of the President Habyarimana was shot down, it triggered genocide, in which, extreme Hutus massacring 800,000 to 1 million Tutsis and moderate Hutus during the course of 3 months.

In July, 1994, after the RPF ceased the genocide, a new political regime was established, with Paul Kagame as the Vice President. Rwanda's first local elections were held in 1999, followed by the District level elections in 2001. In August, 2003, a Presidential election was carried out and Paul Kagame was elected the President. In September and November, 2003, legislative elections were held for Upper and Lower House. RPF won the majority to be the ruling party. In September, 2008, for Lower House, RPF again sustained the victory. Now, the President Kagame (re-elected in 2010) puts strong emphasis on the fight against corruption, and Rwanda fairs well in terms of less corruptions and good security in the region (MOFA, 2012b).

2.2 Socio-economic Situation

Socio-economic indicators of Rwanda are indicated below.

1) Name of the country:	Republic of Rwanda
2) Area:	26,300 km^2 [*1]
3) Population:	10.76 million,[*2] Annual growth rate 3.0%,[*3] Population density 431/km^2 [*3]
4) Ethnic groups:	N.A.
5) Languages:	English, Kinyarwanda, French[*1]
6) Religions:	Catholic 57%, Protestant 26%, Adventist 11%, Muslim 4.6%, etc.[*1]
7) Major industries:	Agriculture (coffee, tea, etc.)[*1]
8) Gross domestic product (GDP):	5.63 billion $US (2010)[*1]
9) GNI per capita:	1,150 $ (PPP, current international $) (2010)[*3]
10) GDP growth rate:	7.5% (2010)[*1]
11) Consumer price index (2005=100):	154.8 (2010)[*1]
12) Currency:	Rwandan franc (RWF)
13) Exchange rate:	1 $US＝602 RWF (2012)[*1]

14) Life expectancy at birth:	55.1 years (2010)[*3]
15) Adult literacy rate:	69.7% (2009)[*2]
16) Prevalence of HIV:	2.9% (2009)[*3]

*1 The home page of the Ministry of Foreign Affairs of Japan, Country profile of Rwanda (Accessed on 1 June, 2012).

*2 EICV3 published by the National Institute of Statistics of Rwanda (NIRS).

*3 The World Bank homepage, "World Data Bank" (Accessed on 1 June, 2012).

Prior to 2006, Rwanda was divided into the following 12 Provinces: Butare, Byumba, Cyangugu, Gikongoro, Gisenyi, Gitarama, Kibungo, Kibuye, Kigali City, Kigali-Rural (Kigali Ngali), Ruhengeri and Umutara. Since 1 January, 2006, new administrative divisions were introduced to establish five Provinces: Northern Province, Eastern Province, Southern Province, Western Province, and Kigali City. Following the administrative hierarchy, under the Provinces, there are 30 Districts, 416 Sectors, 2,148 Cells, and 14,842 Villages. Within this report, data and statistics are presented according to the new administrative divisions.

CHAPTER 3: EDUCATIONAL POLICIES AND REFORMS

3.1 National Development Plans

In 2000, the Rwandan Government has issued a medium and long-term national plan, the Vision 2020. The Vision 2020 sets its goal as for Rwanda to become a middle-income country by 2020 by increasing the GDP per capita of 220 US$ in 2000 to 900 US$ in 2020. The Rwandan Government has demonstrated a strong ownership and high administrative capability, and has reached and maintained a high economic growth around 7% in the recent years. Rwanda is making a remarkable progress in recovering and rebuilding its nation after the civil war in 1990s (MOFA, 2012). The Human Development Index (HDI) of Rwanda has plummeted after the civil war and especially around the genocide in 1994. However, by 2000, the index has recovered to the level of pre-civil war period, and rose steadily to becoming close to the average of Sub-Saharan African region (UNDP, 2012).

The Economic Development and Poverty Reduction Strategy (EDPRS) (2008-2012), compared to its predecessor, the Poverty Reduction Strategy Paper (PRSP) (2002-2005), focuses more on medium and long-term national planning and economic growth rather than on post-conflict emergency and recovery (MINECOFIN, 2007). EDPRS was developed through broad consultation processes involving various stakeholders within the Government as well as development partners (DPs). EDPRS is the guiding document for the budget frameworks such as the Long-Term Strategy and Financing Framework (LTSFF) and the Medium Term Expenditure Framework (MTEF). EDPRS presents three flagship programs: 1) Sustainable Growth for Jobs and Exports, 2) Governance, including expanding decentralization and enhancing accountability and 3) the Vision 2020 *Umurenge* Program (VUP),[3] to alleviate rural poverty and improve productivity (MINECOFIN, 2007).

3.2 Education Act

The Constitution of Rwanda (2003) defines that “every person has the right to education” in Rwanda. It is stipulated that primary education is compulsory, and it is free in public schools. According to the Constitution, the State has the duty to take special measures to facilitate the education of disabled people. The Organic Law governing organization of education, N° 02/2011OL of 27/07/2011 was issued in 2011, and defines the basic frameworks of basic, secondary and higher education. This Organic Law replaces the previous Organic Law of 2003. The new Organic Law places stronger focus on improving the quality of education at all levels of education. It also places stronger emphasis on educating and training productive human

[3] The objective of the Vision2020 *Umurenge* (VUP) is poverty reduction, with an ultimate goal of achieving economic and social development in the long run. VUP is a social security programme targeting poor households with direct support (unconditional cash transfers), public works, and financial services including microcredit. The VUP aims to contribute to the national target to reduce extreme income poverty from 36.9% in 2005/6 to 24.0% in 2012 (Vision 2020 Umurenge Programme, 2011).

capital for the country's socio-economic development (Interview with the Embassy of Rwanda, 2012). Rwanda as a country recovering from the civil war, the Organic Law also outlines the mission of education "to educate the citizen in such a way that he/she is not characterized by any form of discrimination and favoritism" and "to promote the culture of peace, tolerance, justice, respect of human rights, solidarity and democracy."

3.3 Education Policy

His Excellency, Paul Kagame, the President of Republic of Rwanda states that for a small country like Rwanda with little endowment of natural resources, the human capital is the most valuable asset.[4] Thus, investing in its people is a key for Rwanda's development. To learn from lessons worldwide, including the East Asian miracles, Rwanda is forging partnerships with countries such as Singapore as a similar model for achieving high socio-economic development within decades without major natural resources. With Singapore, concrete areas of co-operation encompass urban development, human resource development and so forth.

In July, 2003, the Education Sector Policy was issued. In the Policy, the mission statement is described as follows, "the global goal of the Government of Rwanda is to reduce poverty and in turn to improve the well-being of its population. Within this context, the aim of education is to combat ignorance and illiteracy and to provide human resources useful for the socio-economic development of Rwanda through the education system."

In order to realise this mission statement, the following general objectives are defined in education:

1. To educate a free citizen who is liberated from all kinds of discrimination, including gender based discrimination, exclusion and favouritism;
2. To contribute to the promotion of a culture of peace and to emphasise Rwandese and universal values of justice, peace, tolerance, respect for human rights, gender equality, solidarity and democracy;
3. To dispense a holistic moral, intellectual, social, physical and professional education through the promotion of individual competencies and aptitudes in the service of national reconstruction and the sustainable development of the country;
4. To promote science and technology with special attention to ICT;
5. To develop in the Rwandese citizen an autonomy of thought, patriotic spirit, a sense of civic pride, a love of work well done and global awareness;
6. To transform the Rwandese population into human capital for development through acquisition of development skills;

[4] Africa and Rwanda: From Crisis to Socioeconomic Development, 22 May, 2008, His Excellency, Paul Kagame, President of Republic of Rwanda, Public Lecture organized by Lee Kuan Yew School of Public Policy, National University of Singapore.

7. To eliminate all the causes and obstacles which can lead to disparity in education be it by gender, disability, geographical or social group.

Within the Education Sector Policy, general policy statements for various different areas of the education system are outlined. The Policy instructs more detailed subsector policies be formulated, and leaves the Education Sector Strategic Plan (ESSP) to develop detailed strategies for implementation. Among the general policy statements, the document highlights, for instance, the directions for Access to Education by indicating that: Basic education shall be provided to all Rwandans, women and men, boys and girls by 2015; Current 6 years of basic education shall progressively be increased to 9 years and where appropriate be under same school administration; Universal Primary Education shall be reached by 2010; and Teacher training shall be increased at all levels according to the pupil teacher ratio (MINEDUC, 2010b, p.18).

3.4 Education System

When the Nine Years Basic Education policy was introduced in 2006, the free and compulsory basic education was expanded from 6 years covering Primary 1 (P1) to Primary 6 (P6) (school age 7 to 12 years old) to encompassing 9 years covering Primary 1 (P1) to Senior 3 (S3) (school age 7 to 15 years old). (In 2003/4, the 6-year basic education became free, and in 2007, the 9-year basic education became free in practice). Secondary education starts from Senior 1 (S1) up to Senior 6 (S6). The lower secondary education is from S1 to S3 and upper secondary education is from S4 to S6 (school age 16 to 18). After completing S6, students sit for a national examination to proceed to higher education (IPAR, 2012). Average pre-primary education covers children aged 3 to 6 years old. Especially at P1, there are students who enroll into schools at higher / lower age than the official school age (WB, 2011).

In 2012, basic education was extended to 12 years. During the presidential election campaign in 2010, President Paul Kagame, who were re-elected the President, made a pledge to ensure 12 Years Basic Education (12YBE) in Rwanda. The 12YBE has been launched in 2012, and still on a pilot basis to be fully put into implementation nationwide. At P6 level and S3 level, there are mandatory national examinations, which grant the students who passed with leaving certificates. According to their grades, the students are selected and placed to respective schools of higher level in the order of their grades within the country (Ministry of Education, Science, Technology and Scientific Research, 2003).

For upper secondary education, there are three types of schools: General Secondary (GS), Teacher Training College (TTC) and Technical and Vocational Education and Training (TVET). As mentioned above, the basic education in Rwanda has been expanded to 12 years in 2012. However, as it is too early to assess its processes or results, this study will mainly focus on the basic education from primary to lower secondary levels. This is also to comply with the definition of basic education by JICA, to include “pre-primary education, primary education, lower secondary education and non-formal education,” indicated in JICA Thematic Guidelines

on Basic Education issued in May, 2005.

3.5 Education Sector Plans

The EDPRS high level objectives for education are to improve and increase:

1 Access to education for all
2. Quality education at all levels
3. Equity in education at all levels
4. Effective and efficient education system
5. Science and technology and ICT in education
6. Promotion of positive values, critical thinking, Rwandan culture, peace, unity and reconciliation

To achieve the above objectives, main priorities for the education sector outlined in the Education Sector Strategic Plan 2010-2015[5] are listed below. Significant progress has been made with regard to access to education, particularly at the basic level, through fee-free Nine-Year Basic Education. The major challenges for this ESSP period will be ensuring quality and equity in education and training throughout the system from early childhood development to higher education and ensuring that teachers and learners will become fully proficient in English. Therefore the main priorities will be:

1. Improving completion and transition rates whilst reducing dropout and repetition in basic education,
2. Ensuring that educational quality continues to improve,
3. Developing a skilled and motivated teaching, training and lecturing workforce,
4. Ensuring that the post-basic education (PBE) system is better tailored to meet labour market needs,
5. Ensuring equity within all fields and throughout all levels of education and training,
6. Strengthening education in science and technology,
7. Strengthening the institutional framework and management capacity for effective delivery of education services at all levels.

3.6 Supervisory Authority

The role of the Ministry of Education (MINEDUC) is to develop policy, norms and standards for the education sector and undertake planning, monitoring and evaluation at the national level. It is also responsible for coordinating donor assistance. The MINEDUC organizational chart is annexed to this report, which illustrates the range of its tasks. MINEDUC has undergone an organizational reform, which resulted in the reduction of the number of staff from 203 in 2004

[5] ESSP 2010-2015 is currently under review, in accordance with the review of EDPRS in 2012. The revised ESSP is to be issued within 2012.

to 34 in 2007 (WB, 2011). In 2009, the Rwanda Education Board (REB) was established under the supervision of MINEDUC with the aim of providing a quality education to all Rwandans. REB will bring together the main implementation bodies to ensure more effective coordination and more streamlined management (MINEDUC, 2011b, p.9). With REB being established and the decentralization policy approved in 2000, a number of duties previously performed by MINEDUC are being devolved to REB and the District Education Offices (DEOs) located in the district administration office headed by the District Mayor.

As illustrated in the MINEDUC organizational chart in Annex 3-5, MINEDUC is led by one Minister, one Minister of State, and one Permanent Secretary. There are sections for Finance & Administration, International Cooperation, Education Planning, and Science, Technology and Research. Under the Director General of Education Planning, and the Director General of Science, Technology and Research Unit, there are 3 Units respectively. REB is a newly established entity composed of former semi-autonomous agencies such as the Teacher Service Commission (TSC), the National Examinations Council, the National Curriculum Development Centre (NCDC), etc. The mission of REB is to fast-track education development in Rwanda by enabling the education sector growth. The scope of the work includes all aspects related to the development of the education sector. This involves working with and addressing the needs of schools of all sizes (both public and private) and brings education on the same range as the East African Community (REB website, 24 July, 2012). REB has six Departments responsible for delivering on the above mentioned duties. The REB Organizational chart is also illustrated in Annex 3-6.

CHAPTER 4: STATUS AND CHALLENGES OF BASIC EDUCATION SECTOR DEVELOPMENT

4.1 Access

4.1.1 School Age Population

According to the Household Living Conditions Survey (EICV) 3 conducted in 2010/11, the population between 5 to 19 years old (official school age is from 5 to 18 years old), who are supposed to attend primary and secondary education was 3,766,000 in 2005/6. In 2010/11, it increased to 4,181,000 (NISR, 2011). The annual population growth between 2010 and 2015 is projected to be 2.9% (UNFPA, 2011). The EICV3 results show that the percentage of the population between 5 to 19 years old was at 38.8%, out of the total national population of 10.76 million (NISR, 2011). The population within age groups 5 to 19 years old in 2020, with the medium level prediction, is projected to be 4,992,645. This is based on the population size and demographic information from the 2002 Census issued by the National Institute of Statistics of Rwanda (NISR).[6]

Table 4-1: Projection of School Age Population (2020) (Unit: persons)

Age group	Medium			Low			High		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
5-9	1,973,451	991,701	981,749	1,676,521	842,460	834,061	2,057,090	1,033,740	1,023,350
10-14	1,681,489	843,677	837,812	1,630,210	817,945	812,266	1,695,845	850,881	844,964
15-19	1,337,705	667,606	670,099	1,337,705	667,606	670,099	1,337,705	667,606	670,099
Total	4,992,645	2,502,984	2,489,660	4,644,436	2,328,011	2,316,426	5,090,640	2,552,227	2,538,413

(Source: NISR, 2009)

4.1.2 Enrollment Trend of Pre-school Education

In Rwanda, the primary service providers in the area of Early Childhood Development (ECD) have been the private sector entities and the civil society organizations (CSOs). As indicated in Table 4-3, in 2011, there were 1,471 pre-primary schools, 2 of them being public and 1,469 of them being private schools (MINEDUC, 2012). In 2011, gross enrollment rate (GER) in pre-primary schools was at 11.6%. The age cohort from birth to six years of age as a direct concern to the ECD implementation is projected to be 2.2 million or 24% of the population based on 2002 Census (MINEDUC, 2011). Child mortality (children under 5 years of age) was 103 per 1,000 live births in 2007/08, in contrast to 152 per 1,000 live births in 2005. The rate of

[6] The national projections require measuring fertility, mortality and international migration in the base projection year, as well as projecting the future trend of those factors of population growth. Three projection variants have been made based on three different fertility trends (low, median and high). The same mortality projection was used in the three projection variants (NISR, 2009, p.1).

low birth weight was reported to be 9%. The maternal mortality rate declined from 1,071 in 2000 to 750 in 2005 and to 383 in 2010 per 100,000 live births (MINEDUC, 2011). Although impressive improvements have been made in these areas, both the child mortality and maternal mortality are still alarmingly high.

In 2011, MINEDUC has issued Early Childhood Development (ECD) Policy and the Integrated Early Childhood Development Strategic Plan (2011/12-2015/16). In this Policy, the vision of ECD in Rwanda is stated that "All infants and young children will achieve fully their developmental potential: mentally, physically, socially and emotionally" (MINEDUC, 2011, p.18). Some of the specific ECD objectives are described as follows:

1. To improve birth outcomes, reduce infant and maternal mortality and high fertility rates through the expanded use of family planning; pre-conception services; HIV prevention and care services and antenatal education; health and nutrition care services; and the increased use of medically attended births as well as improved neonatal care.
2. To improve parents' and legal guardians' knowledge, skills and resources to support the development of their children, with an emphasis on infants and children up to 6 years of age.
3. To ensure infants and toddlers receive nurturing care and developmental services, and that young children from 3 years to primary school entry are well developed and prepared for success in school and life.

In 2005, according to the demographic and health survey (DHS), 70% of women with one or two children and 74% with three or more children worked outside of the home. During Consultative Workshops, mothers from all parts of Rwanda expressed a desire for more community ECD Centres (MINEDUC, 2011). For pre-primary education, cross-sectoral approach is critical, especially to embrace the aspects of education, health and nutrition. However, in Rwanda, the coordination and division of responsibilities among different Ministries are not yet clearly defined (JRES, 2012). At present, there is no Ministry, which receives a budget allocation to cover the salaries of pre-primary school teachers. MINEDUC is no exception. During the implementation period of the Integrated Early Childhood Development Strategic Plan (2011/12-2015/16), MINEDUC plans to build at least one ECD center in each of the 416 sectors (MINEDUC, 2011).

Table 4-2: Gross Enrollment Rate (GER) and Net Enrollment Rate (NER) in Pre-primary Schools (2008-2011)

	2008	2009	2010	2011
Gross Enrollment Rate (GER)	16.1%	15.9%	9.9%	11.6%
Boy	15.6%	15.4%	9.6%	11.2%
Girl	16.5%	16.5%	10.3%	11.9%
Net Enrollment Rate (NER)	8.7%	9.7%	6.1%	10.1%
Boy	8.5%	9.3%	5.9%	9.7%
Girl	8.9%	10.0%	6.3%	10.4%

(Source: MINEDUC, 2012)

Table 4-3: Total Number of Pre-primary Schools (2008-2011)

	2008	2009	2010	2011
Total number of schools	2,132	1,705	1,369	1,471
Public schools	2	2	2	2
Private schools	2,130	1,703	1,367	1,469

(Source: MINEDUC, 2012)

4.1.3 Enrollment Trend of Basic Education

Since the launch of the Nine Year Basic Education Policy in 2006, expanding free and compulsory education to 9 years, the enrollment from Primary 1 up to Senior 3 has improved remarkably. The number of schools and teachers increased in order to cater for the increasing number of students. A nationwide effort was made to construct new and additional school buildings with the support from the communities providing material, labor, and in some cases financial contributions.

(1) Number of Schools

The number of primary schools accommodating P1 to P6 has increased from 2,370 in 2007 to 2,543 in 2011 (MINEDUC, 2012). According to the Organic Law governing organization of education issued in 2011, there are three types of schools providing primary education in Rwanda: public school, government-subsidized school and private school. In 2011, the number of schools in each Province was as follows: 690 schools in the Southern Province, 725 schools in the Western Province, 503 schools in the Eastern Province, 450 schools in the Northern Province and 175 schools in Kigali City (MINEDUC, 2012).

(2) Enrollment

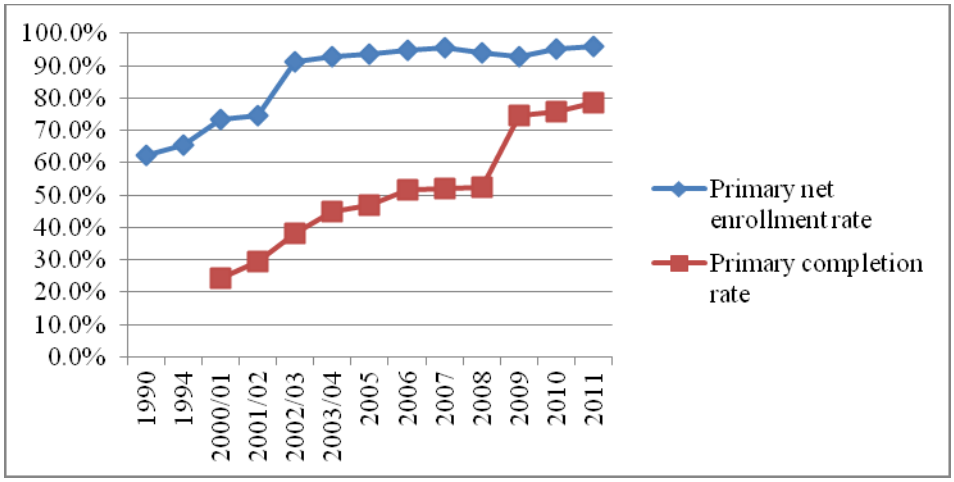
The number of enrolled students in primary schools in 2000 was 1,476,272, which rose to 2,341,146 in 2011 (ODI & Mokoro, 2009). In 2011, there were 1,150,205 boys enrolled and 1,190,941girls enrolled, girls outnumbering boys. The increase in the number of students

enrolled is observed to be due to the Nine Years Basic Education Implementation Fast Track Strategies proposed in 2008. In addition to this strategy, there was all-around support to make nine year basic education possible in terms of school infrastructure by building 3,000 classrooms and necessary toilet facilities within just 5 months (MINEDUC, 2010b).

(3) Enrollment Rates

The GER for primary education improved steadily from 99.9% in 2000/01 (ODI & Mokoro, 2009). It peaked at 152% in 2007, and gradually decreased to 127.3% in 2011. In 2011, the GER for girls was higher at 128.9% than boys at 125.7% (MINEDUC, 2010b). The reason for the decrease is primarily due to the fact that more students started to enroll at the official school age. In 2011, the national net enrolment rate (NER) was at 95.9% (MINEDUC, 2012).

The completion rate also has been on the constant rise marking 24.4% in 2000/01, and 78.6% in 2011 (75.1% of boys, 81.8% of girls) (Table 4-4). Dropout rate at primary education was 14.2% in 2000/01, and improved to 11.4% in 2010. Repetition rate at primary education was 31.8% in 2000/01, and decreased to 13.0% in 2010 (MINEDUC, 2010b, ODI & Mokoro, 2009).



(Source: MINEDUC, 2012)

Figure 4-1: Primary NER and Completion Rate (1990-2011)

Table 4-4: Primary NER and Completion Rate (1990-2011)

	1990	1994	2000 /01	2001 /02	2002 /03	2003 /04	2005	2006	2007	2008	2009	2010	2011
NER	62.5%	65.3%	73.3%	74.5%	91.2%	93.0%	93.5%	95.0%	95.8%	94.2%	92.9%	95.4%	95.9%
Completion Rate			24.4%	29.6%	38.1%	44.9%	46.7%	51.7%	52.0%	52.5%	74.5%	75.6%	78.6%

(Source: MINEDUC, 2012)

(4) Measures to Increase the Number of Enrollment

In order to increase students' enrollment, various measures were taken. The following are the

major factors contributing to the success of the implementation of the 9-year basic education. A large-scale construction projects were undertaken. The basic approach was to accommodate pupils graduating from primary school at newly constructed additional secondary school buildings at the same location as their primary schools. This enabled a number of students to be able to go to schools close to their homes. Child Friendly School model supported by UNICEF was widely applied and now being integrated as part of "Rwandan Education Quality Standards 2008." Specifically, the "Child Friendly Schools Infrastructure Standards and Guidelines" [7] was adopted for Primary and Secondary schools, which offers practical guidance on how to achieve the agreed standards. This guideline is now a nationally recognized document that will serve as the norm to all private and public primary and secondary schools in Rwanda. In ESSP 2010-2015, a child-friendly school is defined as one that is: inclusive, safe and protective, health promoting, gender sensitive, academically effective, and involved with the community (MINEDUC, 2010, p.22).

On the policy side, in 2009, MINEDUC started an acceleration of the Nine-Year Basic Education, aimed at reducing class sizes, through better planned double-shifting, improving specialization of primary teachers, and reducing core subjects from nine to five in P1 to P3, and from 11 to six subjects in P4 to P6, in order to increase the number of hours taught per subject. Capitation grants have been used by schools to hire an additional 1,968 contract teachers (MINEDUC, 2010b).

The community involvement in the rollout the Nine-Year Basic Education Program was also significant. Schools had to be enlarged and new classrooms built to make rooms for additional students. Communities made the bricks, worked with the qualified workers and soldiers, built the classrooms, and did the landscaping. The contribution of the community is estimated to have halved the costs of construction (GPE, 2011). There have also been national campaigns by a number of politicians advocating that Rwanda is landlocked without major mineral resources, and thus, the country should base her economy on knowledge. Politicians spoke to the communities and via the radio the importance of children to be educated. After the monthly Umuganda (communal work), as part of community sensitization, people talk to those parents who are not taking children to school. Those parents can be criticized for not sending their children to school. Through this type of peer pressure, as well as structured reporting system such as the performance contracts,[8] the parents, teachers and community members were held

[7] Four standards of Child Friendly Schools Infrastructure Standard are: 1) a school must have appropriate, sufficient and secure buildings; 2) a school must be a healthy, clean, secure and learner protecting environment; 3) a school must have a child-friendly, barrier free environment which promotes inclusive access and equal rights of every child; and 4) a school must have adequate and appropriate equipment that support the level of education.

[8] Rwanda's performance contracts are binding agreements between government agencies and the President of the Republic for the former to reach certain targets on socio-economic development indicators, which started in 2006. Local authorities are held accountable to their targets, and civil servants can be fired for below-average performance (Versailles, 2012).

accountable for sending children to school.

The success in achieving high enrollment rates by girls is an outstanding result. Girls, in particular, face challenges to staying in school, including household chores, early pregnancies and long walking distances to school. As part of the nine year basic education reform, Rwanda strived to address these challenges and ensure that more girls and boys stay in school and have a stronger start in life. Among those initiatives, the First Lady's Reward for Rwanda's Best Performing Girls encouraged girls to excel and perform well in school. It was advocated that girls deserve respects as well as boys, and that they have the equal rights to learn and attend school. On practical side, schools were equipped with separate toilets for boys and girls and a special room for girls. Schools invited elderly aunties to be stationed, whom female students could consult on any issues affecting their lives and school performances. The school also provided sanitary napkins during menstrual periods for girls. This was an attempt to prevent girls being absent from school repeatedly during the menstrual periods, which could eventually lead to girls not being able to follow the class and drop out of schools (Interview with REB, 2012).

4.1.4 Enrollment Trend of Secondary Education

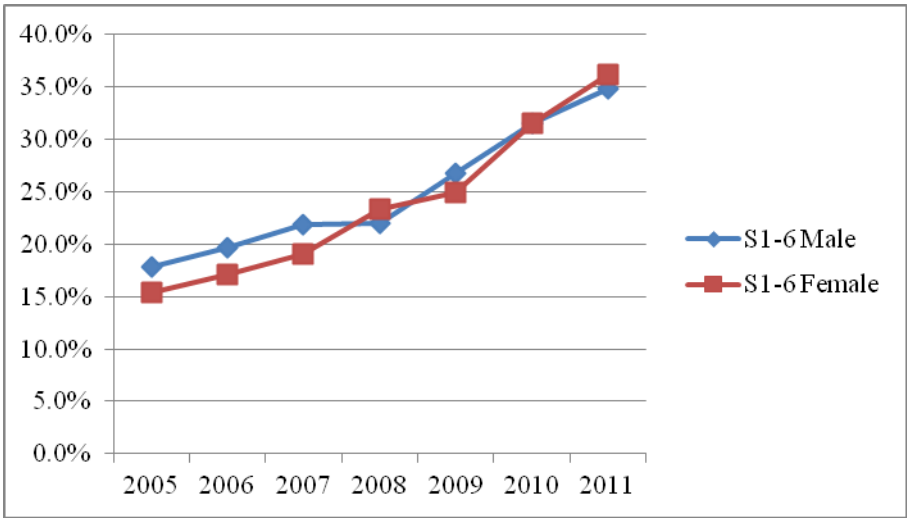
The number of secondary school and students are on the rise, however, the GER still remains low at 35.5% in 2011, slightly above the African average of 35.3% (UNDP, 2011). The national examination at P6 was used to select the number of students according to the number of available slots at the secondary education. The present national examination still has the function to place students to respective secondary schools based on their grades.

(1) Number of Schools

In 2009, there were 686 schools providing secondary education (age 13 to 18). This number almost doubled to 1,362 in 2011 (MINEDUC, 2012). However, the number of schools and their facilities are not sufficient yet to fully accommodate increasing enrollment (Interview with MINEDUC, 2012). According to the types of institutions, a larger number of students are now enrolled in pubic secondary schools than the private institutions. The rate of students enrolled in private schools decreased from 45.3% in 2000 to 37.1% in 2008 (WB, 2011).

(2) Enrollment

The number of enrolled students in secondary education was 218,517 in 2005, which more than doubled to 486,437 in 2011. In 2005, there were more boys enrolled than girls by 12,183. However, the girls outnumbered the boys by 14,937 in 2011 (MINEDUC, 2010c & 2012). The GER rose from 16.6% in 2005 to 35.5% in 2011 (Figure 4-2) (MINEDUC, 2012). In 2011, the GER was 34.9% for boys, and 36.2% for girls. This trend contrasts with the situation in 2007, when the rate for boys at 21.9% was above girls at 19.1% (MINEDUC, 2012). The ratio of girls' enrolment against boys' was 1.02 in 2010, and 1.06 in 2011, girls achieving higher number.

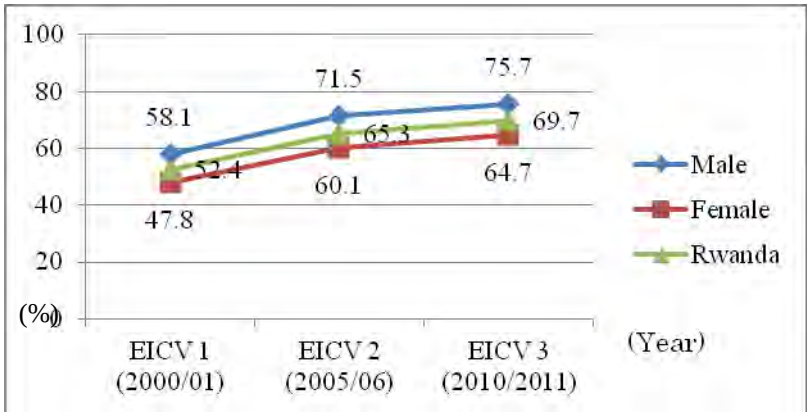


(Source: MINEDUC, 2011 & 2012)

Figure 4-2: Secondary Gross Enrollment Rates by Sex (2005-2011)

4.1.5 Literacy Education

In 2010/11, Rwanda's adult literacy (age 15 and more) was 69.7%, exceeding the Sub-Saharan African average of 61.6% (UNDP, 2011). As indicated in Figure 4-3, in the past decade, there have been impressive improvements in the adult literacy, rising from 52.4% to 69.7%. However, the gap between male and female was at 11 points in 2010/11, and this trend of a wide gender gap has not been changed since 2000/01.



(Source: MINEDUC, 2011 and NISR, 2002)

Figure 4-3: Literacy Rates (%) among Population Aged 15 and above by Sex (2000-2011)

In Rwanda, the age group between 15 and 24 has the highest literacy rate, showing the education opportunities they have enjoyed (NISR, 2011). According to the "Millennium Development Goals: Rwanda Country Report" issued in 2010 by UNDP, for the literacy rates of women and men aged 15 -24 years under the Goal 2 (Achieve universal primary education), good progress is likely to continue, but it is unlikely that 100 per cent of 15-24 year olds will be

literate by 2015 (Abbott and Rwirahira, 2010).

Considering the adult literacy rate (15 and more) in relation to the level of poverty, the adult literacy rate was 57.6% among the population in the lowest consumption quintile, and 83.3% in the highest consumption quintile, showing a wide gap, based on EICV3 (2010/11). Comparing the results with EICV2 (2005/06), the gap between the population groups in the lowest and highest consumption has decreased from 28.7% to 25.7% (NISR, 2011).

In 2010, the "Ministerial Instructions regulating adult literacy education in Rwanda, N°002/2010 of 09/12/2010" were issued. This document instructs, "after realising that there are no instructions and quality standards organising adult literacy education," for responsible entities to "design policy, put in place laws, issue instructions and develop curricula relating to literacy education." The inspectorate of education is mandated to set up standards for literacy education and to monitor the implementation of education policy, laws, instructions and curricula of literacy education. The Cells are responsible for making a list of adults and youths in the Cell who do not know how to read and write and to submit the list to the Sector. The document also instructs the Ministry in charge of education shall transfer to the District the budget allocated to adult literacy education.

According to the World Bank Rwanda Education Country Status Report 2011, using 2000 data of adult literacy, among 31 countries in Africa being surveyed, Rwanda has the highest adult literacy rate of 31 African countries, with 98 percent of those who completed primary school being literate (WB, 2011).

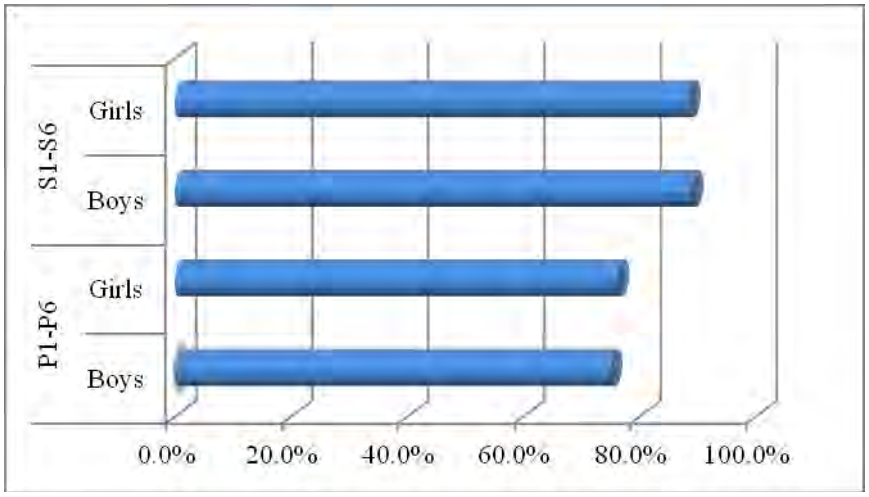
4.2 Internal Efficiency (Quantitative Internal Efficiency)

Between 2000/1 and 2008, there were improvements made in terms of promotion rate, repetition rate, and dropout rate. Especially, the progress made in reducing the primary repetition rate is significant. However, it is also pointed out that there are pupils who enroll in P1 in primary, and drop out, and re-enter the school as new entrants. In fact, this makes the repetition counts lower than actual (WB, 2011). In general, the repetition rate in a grade with examination in primary education tends to be higher. However, this is not the case in Rwanda. One of the reasons may be that the students who managed to be promoted up to the level of P6 tend to have strong academic competencies (WB, 2011).

(1) Promotion (Transition) Rates

The promotion (transition) rates are low at P6 and S3 where students have to take the examination. In 2011, the promotion rate was higher for girls in primary education, and it was higher for boys in secondary education (Figure 4-4) (MINEDUC, 2012). The primary completion rate has advanced from 24.2% in 2000/01 to 78.6% 2011 (75.1% for boys, and 81.8% for girls). In primary education, the dropout rate has improved from 14.2% in 2000/01 to 11.4% in 2010. The repetition rate decreased from 31.8% in 2000/01 to 13.0% in 2010

(MINEDUC, 2012, ODI & Mokoro, 2009).



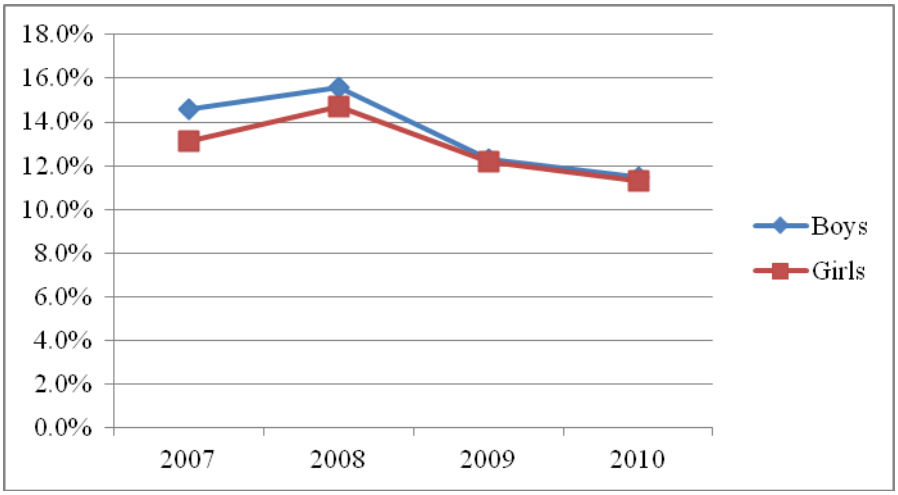
(Source: MINEDUC, 2011)

Figure 4-4: Promotion Rates in Primary and Secondary Education by Sex (2010)

(2) Repetition/Dropout Rates

In primary education, repetition rate from P1 to P6 has dropped from 17.7% in 2007, to 13.0% in 2010 (MINEDUC, 2012). In 2010, the repetition rate from P1 to P6 for boys was at 13.5%, and for girls at 12.5%. The gender gap was by 1 point. The repetition rate of P6, in particular, also decreased from 17.7% in 2002/03 to 16.6% in 2008 (WB, 2011). The dropout rate in primary education has improved from 13.9% in 2007, to 11.4% in 2010. In 2010, the dropout rate in primary education for boys was 11.5%, and for girls 11.3%, showing little difference according to sex (MINEDUC, 2012).

In secondary education from S1 to S6, the repetition rate has decreased from 6.0% in 2008 to 3.8% in 2010. In 2008, the repetition rate from P1 to P6 for boys was at 5.6%, and for girls at 6.3%. Dropout rate has also dropped from 9.6% in 2008 to 7.4% in 2010 (7.4% for boys, and 7.5% for girls) (MINEDUC, 2012). Specifically, the dropout rate for girls was 13.3% in 2008, and it almost was halved in percentage to 7.5% in 2010.



(Source: MINEDUC, 2011)

Figure 4-5: Dropout Rates in Primary Education by Sex (2007-2010)

(3) Cohort Survival Rates

As it was not possible to obtain information of cohort analysis from MINEDUC, this section is informed by the analysis of retention profiles of a cohort of 100 children who have entered school in the World Bank CSR 2011. The cohort survival rate for a group of 100 children in 2008 was calculated as follows: 45% of students reaching up to P5, 28% of students up to P6, and 15% of students reaching up to S1 of lower secondary education. Out of this cohort, retention rate was only 9% reaching S6, the final year of upper secondary education (WB, 2011, p.70-73).[9] This means only less than one third of pupils reach P6, and this low level of retention affects the completion rate. Only 15% of pupils who entered primary school proceed to secondary education. However, once they manage to enter secondary school, the rate of completing the secondary education is relatively high. Although the access to primary education has expanded remarkably, the difficulty in progressing to secondary education is obvious. When comparing the retention rate of 2008 with those of 2002/03 and 2005, the rate is actually decreasing. While expanding enrollment, measures should be taken to encourage and enable students to continue with their education.

[9] The pseudo-longitudinal method is used to compute the cohort survival rates. The pseudo-longitudinal differs from the "reconstructed cohort method." The "reconstructed cohort method" requires reliable information either on: (i) rates of promotion, repetition and dropouts for consecutive grades; or (ii) an assumption of the maximum number of repetitions allowed for a given grade. The pseudo- longitudinal method on the other hand only requires information on the "effective promotion rate" for consecutive grades, which gives the probability that a new entrant at a given grade will access the next grade (WB, 2011, p.70-71).

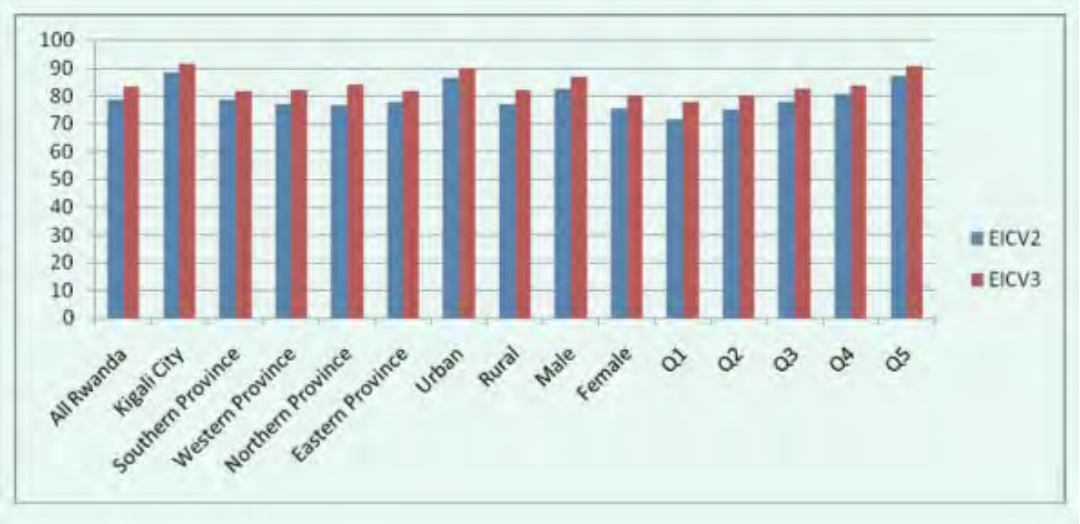
4.3 Equity

4.3.1 Comparative Analysis of Access by Group

(1) Promotion and Transition Rates by Province and by Gender

In order to examine the issue of equity in education, Figure 4-6 provides an indication of access to education by various groups according to province, urban/rural, gender and by level of consumptions. The percentage of population aged 6 and above that have ever attended school is presented showing the data of EICV3 and EICV2. It was not possible to obtain the repetition rates, dropout rates and survival rates by these different groups.

The EICV results indicate that, in urban areas, the rates are higher for their population aged 6 and above who have ever attended school, compared to the population in rural areas. In terms of gender, males have better opportunities than females in accessing school education. This represents an increase of about 6% since EICV2 in 2005/06. The trend observed across consumption groups (quintiles) (Q1-Q5) indicates that, the consumption group in highest quintile has the highest access to education, and the lowest group suffers most on the same indicator. It can also be observed that, in general, access to education is increasing faster among those in the lowest quintiles (NISR, 2011).



(Source: NISR, 2011, p.46)

Figure 4-6: Percentage of Population Aged 6 and above that Have Ever Attended School

In order to examine the regional variances in terms of access to primary education according to Districts, Figure 4-7 depicts the gaps in primary NER (children 7 to 12 years old) across the country. The Districts with darker colors have lower rates, which are mostly located in the relatively poor Southern Province and border areas.

(Source: NISR, 2011)

Figure 4-7: Net Primary School Enrollment Rate (Children 7 to 12 Years Old)

(2) Gender Parity Index

The Gender Parity Index in 2006 for primary education was 1.00, for lower secondary at 0.98, for upper secondary at 0.74, and for higher education at 0.67. The gender parity for higher education improved from 0.44 in 2000 to 0.67, however, the gender parity tends to deteriorate as students climb up the education ladder (WB, 2011). Gender equality in terms of access to education has improved remarkably. However, girls tend to lag behind boys in learning achievements and the exam results, especially in math and science subjects (MINEDUC, 2010b). It is also noteworthy to refer to the fact that for primary GER and completion rate, as well as secondary GER, girls outnumber boys in 2011.

4.3.2 Education for Children with Special Needs and Inclusive Education

(1) Trend of Education for Children with Special Education Needs

It is estimated that there are 175,205 children with special education needs (CSEN) to a lesser or greater extent in Rwanda, representing 10% of 2,019,991 learners in primary school (MINEDUC, 2007). It is reported that in 2007, 1,713 pupils with special education needs were looked after in "poorly-resourced schools or rehabilitation centres." It is also noted that in most cases, the children with disabilities are not attending schools or their conditions are not given proper diagnosis (Omagor-Loican & Karangwa for MINEDUC, 2012). Special Needs Education Policy issued in 2007 defines children / learners with special education needs are those "who are experiencing barriers (intrinsic and extrinsic) to learning, and are directly or indirectly excluded from or denied the chance to optimally participate in the learning activities which take place in formal or non-formal settings." In the Rwandan context, the following four categories are identified referring to children / learners with special education needs: 1) children with different

disabilities including physical disabilities such as hearing, visual impairments, and intellectual difficulties, 2) all other groups that face difficulties in education including those living with HIV/AIDS, traumatized children due to genocide, etc., 3) children with learning achievement disorders, and 4) gifted and talented learners. The factors causing these special needs are considered to be: 1) the profound impact of the 1994 genocide in the Rwandan society, 2) persisting high levels of poverty despite improvements in the economy, and 3) the impact of HIV/AIDS and other health-related hazards (MINEDUC, 2007).

It is observed that there is a second generation of orphans resulting from the prevalence of HIV/AIDS, which was caused by social dislocation due to the large number of children orphaned by the 1994 genocide (MINEDUC, 2007). It is also believed that Rwanda has the highest rate of children under the age of 15 years who are orphans. The estimates show that 7,000 children are on streets, 3,475 children live in centers / orphanages, 28,341 live in foster care, 900 are in prison, and 100,000 children live in child-headed households. In fact, in 2002, 36% of Rwandan households already fostered children not belonging to the core family (MINEDUC, 2007).

(2) Enrollment Trends of Children with Special Education Needs

MINEDUC has established a Task Force for Inclusive Education, whose members are the Rwandan Government, Kigali Institute of Education (KIE), international non-government organizations (NGOs), and disabled people's organisations (Lewis for UNESCO, 2009). However, inclusive education is not yet integrated into the national education programmes. The existing services provided for CSEN are primarily offered privately and not through state-funded schools. "CollectifTumukunde" is an association of 30 existing centres for education of children with disabilities, which brings together over educational initiatives of parents and Church-Based Organizations (CBOs) in Rwanda. However, these schools operate without adapted curricula and teachers do not receive adequate training. There are only two schools tailored to accommodate CSEN at the secondary level in the country (Omagor-Loican & Karangwa for the MINEDUC, 2012).

There are two approaches in expanding the access to education by CSEN assisted by development partners. One approach is to foster enabling environment for general schools to accept CSEN. The other is to promote exchanges between the institutions for inclusive education with the society (Omagor-Loican & Karangwa for the MINEDUC, 2012). For instance, MINEDUC and UNICEF are collaborating to retrofit existing 20 schools to improve the school infrastructure for CSEN through the Child Friendly School project. Handicap International organizes study tours for teachers. In KIE, modules on inclusive education are part of the teacher training curriculum. In 2012, there were 8 students with special needs graduating from KIE (Interview with KIE, 2012), which could be seen as one of the signs of efforts for inclusion materializing in the Rwandan society.

4.4 Quality of Education[10]

4.4.1 Situation of Learning Outcome

(1) Completion Rates

Thanks to the improvements in reducing dropout rates, the completion rate for P1 to P6 has also ameliorated. The completion rate was 24.2% in 2000/01, and in 2010, rose up to 78.6%. The gender-disaggregated data show that 75.1% of boys and 81.8% of girls have completed the primary education in 2010, girls outperforming boys (MINEDUC, 2012). In lower secondary education, the completion rate was 91.9% in 2009, (93.0% for boys, 90.9% for girls) (MINEDUC, 2010b).

(2) Performance of the National Examination

At P6 and S3 level, there are mandatory national examinations for transition to the next stage of education. The students who pass will be granted the leaving certificates. According to their grades, the students are selected and placed to respective schools in the order of their grades within the country. The Examinations and Accreditation Department of REB manages the national examinations, announcing of results and granting leaving certificates (Interview with REB, 2012).

The primary students' examination performances from 2005 to 2010 are summarized in Table 4-5. Previously, the national examination at P6 was used to select the number of students according the number of available placements at the secondary education. Before REB was set up, there was not enough coordination between the entity responsible for developing curricula and the entity developing exams. Therefore in some cases, the content which was not taught at class was questioned in the exams (Interview with REB, 2012). The pass mark also changed every year depending on the available slots for students at the secondary level rather than by academic criteria, thus comparison of results over time is not easy (WB, 2011). In preparation for the launch of the Nine Years Basic Education, Implementation Fast Track Strategies, the number of students passing the national examination at P6 has increased from 25,914 to 96,328 from 2007 to 2008. During the same period, the percentage of students passing the P6 national examination increased from 22.4% to 74.2% (Table 4-5). Table 4-6 indicates the primary student's performance by subject in 2010. In all the subjects, above 70 % of students managed to pass in 2010.

[10] Excluding internal efficiency and teacher policies.

Table 4-5: Primary Students' Performance from 2005 to 2010

	Candidates who sat for exams			Passed			Selected to S1			% of passed student (%)		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
2005	54,558	52,431	106,989	10,899	17,003	27,902	10,899	17,003	27,902	20.0%	32.4%	26.1%
2006	61,809	57,899	119,708	9,020	14,796	23,816	9,020	14,796	23,816	14.6%	25.6%	19.9%
2007	59,509	56,068	115,577	10,541	15,373	25,914	10,541	15,373	25,914	17.7%	27.4%	22.4%
2008	67,669	62,072	129,741	47,529	48,799	96,328	47,529	48,799	96,328	70.2%	78.6%	74.2%
2009	84,965	72,789	157,754	54,431	52,817	107,248	54,431	52,817	107,248	64.1%	72.6%	68.0%
2010	87,421	73,866	161,287	70,507	62,785	133,292	70,507	62,785	133,292	80.7%	85.0%	82.6%

(Source: MINEDUC, 2012)

Table 4-6: Primary Students' Performance by Subject in 2010

Subjects	2010						
	Sat for exams		Passed		% of student passed		
	Female	Male	Female	Male	Female	Male	Total
Mathematics	87,281	73,720	59,363	54,661	68.0%	74.1%	70.8%
Science and Technology	87,333	73,776	65,351	60,206	74.8%	81.6%	77.9%
Social studies	87,270	73,700	62,648	61,635	71.80%	83.6%	77.2%
English	87,305	73,724	75,241	63,372	86.2%	86.0%	86.1%
Kinyarwanda	87,323	73,771	80,058	67,845	91.7%	92.0%	91.8%

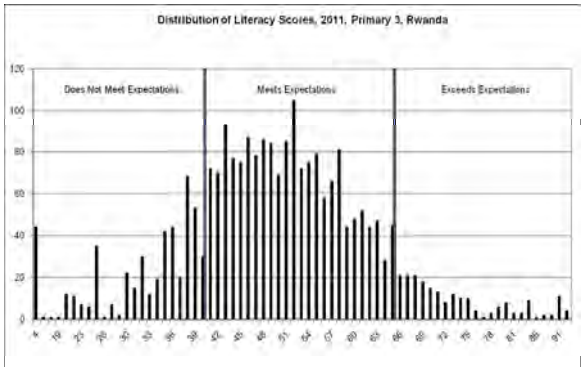
(Source: MINEDUC, 2012)

Following the seven main priority areas for the education sector agreed in the ESSP 2010-2015, an improvement of quality education is one of the priorities. The development of Learning Achievement in Rwandan Schools (LARS), a sampling survey to measure learning achievements, was included in the Plan and implemented in 2011 with support from development partners. The main objectives of LARS are to 1) develop the necessary tools and test design for conducting learning achievement in Literacy & Numeracy at primary level, 2) build the capacity of MINEDUC to develop similar assessments and 3) use LARS results for monitoring the impact of teaching learning activities at the school and classroom level. The preliminary findings were released at a Joint Review of the Education Sector (JRES) meeting in September, 2011, and this section is informed by this presentation (Mboneza, 2011).

60 schools, 2 schools per district in 30 districts, took part in the LARS survey, involving l2,420 students at P3 level. The Literacy results are indicated in Figure 4-8, showing that the majority of students either meet (55%) or exceed (8%) curricular expectations.[11] However, a sizeable

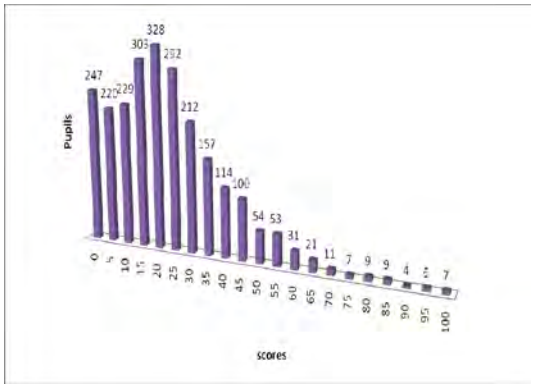
[11] For both literacy and numeracy, the method of calculating the curricular expectations and their figures could not be found in the document referred.

minority of students (37%) failed to meet expectations.[12] For Numeracy, a majority of students do not meet expectations, while 4% exceed expectation. Southern, Northern and Kigali City are the best performing provinces with over 60% students scoring high in Literacy. Only North and Kigali also have students doing very well (more than10% of those doing well). The Western province marked relatively low performance (over 40% not doing well in Literacy, not meeting the expectations) (Mboneza, 2011).



(Source: Mboneza, 2011)

Figure 4-8: LARS P3 Literacy Scores



(Source: Mboneza, 2011)

Figure 4-9: LARS P3 Numeracy Scores

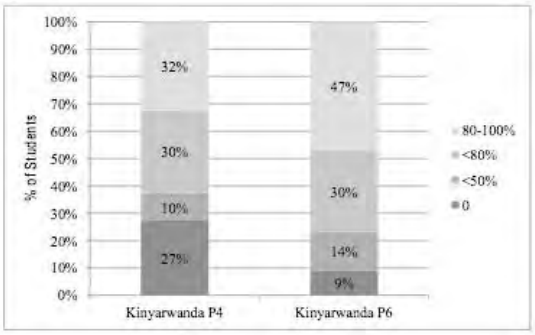
Another major initiative is the USAID-assisted assessment, the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA). It aims to provide an overview of where the country stands on literacy and math where future interventions can assist in improving learning outcomes.[13] In March 2011, a research team evaluated the skills of 420 P4 and 420 P6 students from a representative sample of 42 primary schools in Kinyarwanda, English and math for 15 minutes each, with EGMA & EGRA instrument adapted to the Rwandan curriculum and context[14]. For Kinyarwanda reading comprehension, it indicates that almost half of the P6 students were able to answer 80% of the questions they were asked on a P2-P3-level text. However, almost 40% of P4 students were not able to answer even 50% of the questions posed based on a P2-P3-level text (Figure 4-10). Figure 4-11 indicates that reading comprehension in English was extremely poor, which also reflects the fact that English was only introduced three years prior to this survey. 98% of the students were able to answer less than 50% of the questions, and there was no student who could answer 80% of the questions. For math, the mean scores for untimed P4 and P6 EGMA subtasks are summarized in Table 4-7. For P4, the scores were the following: Number Identification (83%) and Subtraction (64%). For P6,

[12] Looking at regional variances, out of 30 Districts, almost 12 Districts have fallen short of curricular expectations by 40% or more. Among these, 4 Districts were from Eastern Provinces and 3 Districts each was from South and Western provinces.

[13] In conjunction with EGRA & EGMA, the Snapshot of School Management Effectiveness (SSME) is also carried out to diagnose school management effectiveness.

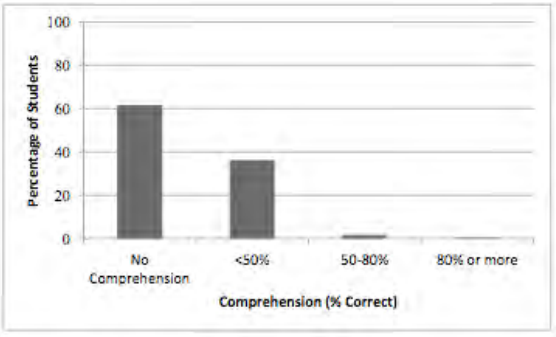
[14] A Kinyarwanda-language instrument was developed based on the linguistic structure of the Kinyarwanda language.

the scores were the following: Number Identification (69%), Addition (93%), and Subtraction (86%). The survey points out that the level of language acquisition in earlier grades is a key in learning achievements in other subjects such as math. Especially, how well the first language, Kinyarwanda, is taught and learned is of critical importance. The report also concludes that the following factors have strong correlations with student performance in reading: 1) the instructional environment, 2) the school environment, 3) the home reading culture, and 4) the socioeconomic status (SES) of students' families (RTI International, 2012).



(Source : RTI International 2012, p.5)

Figure 4-10: Kinyarwanda Reading Comprehension P4&P6 (%)



(Source : RTI International 2012, p.9)

Figure 4-11: English Comprehension P6 (%)

Table 4-7: Mean Scores for Untimed P4 and P6 EGMA Subtasks

	P4					P6				
	Mean (per minute)	Std. Error	Min.	Max.	Accuracy	Mean (per minute)	Std. Error	Min.	Max.	Accuracy
Number Identification (per minute)	18.9	.995	1	46	83%	10.8	.571	0	25	69%
Addition (per minute)	10.7	.653	0	32.7		19.1	.794	4	53	93%
Subtraction (per minute)	7.7	.530	0	24	64%	15.5	.646	0	36.3	86%

(Source : RTI International, 2012, p.12)

The direction for the Rwandan Government is to analyze the lessons from both LARS and EGRA & EGMA processes and results, in order to construct an adequate national system for assessing learning achievements in Rwanda (Interview with UNICEF, 2012).

(3) The Results of the International/Regional Assessment

Rwanda, up to date, has not participated in international or regional assessments to gauge the level of education and its quality, such as the Programme for International Student Assessment, (PISA) organized by Organisation for Economic Co-operation and Development (OECD) or Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ). There are stakeholders, who may demonstrate interest in taking part in such assessments, but on the

other hand, some view developing a sound national system for assessing learning achievements may be the first step in Rwanda to be engaged in a broader endeavor (Interview with KIE & UNICEF, 2012).

4.4.2 Learning Environment

(1) Pupils per Classroom

In 2011, the national average of the number of pupils per classroom, for primary education was 81, and for secondary education, it was 42. As the enrollment rises to fully implement 9YBE and 12YBE, the construction of new classrooms are not catching up with the pace to achieve the number of pupils per classroom coming down to 55 by 2015, a goal set by MINEDUC (MINEDUC, 2012). The regional statistics of 2011 show that for primary education, the Eastern Province has the highest number of pupils per classroom (84), followed by the Northern Province (83), the Southern Province (81), the Western Province (81) and the Kigali City (71) (MINEDUC, 2012). Besides Kigali City, in all the Provinces there are around 80 pupils per classroom and the gap between Kigali City and other Provinces are around 10 pupils per classroom.

Annual teaching hours are calculated to be 900 hours with a single shifting system, and 720 hours with a double shifting system.[15] Child friendly school model has been standardized to be applied in all the schools in Rwanda. However, the basic infrastructure in school is still lacking. Access to safe drinking water has been improved, however, the level of electrification is still low especially in the rural areas (WB, 2011).

Table 4-8 summarizes the proportions of households with improved drinking water source, electricity and the internet in 2010/11. According to EICV3, in 2010/11, on average, 74% of households use one of the improved drinking water sources as their main source of drinking water, showing an improvement from 70%, five years back when the previous survey EICV2 was carried out. Kigali City has the highest access to water at 82.7%, and the Eastern Province the lowest at 66.6%. For electricity, 11% of households now use electricity as their main lighting source, as compared to 4% in EICV2. There is a stark difference between Kigali City and other provinces[16]. In the EICV3 survey, 4% of households had internet access at home (including via mobile phone), and this was the case for 19% of people residing in Kigali City (16% across all urban areas). In rural areas, less than 2% of households have internet access.

The Rwandan Government has launched the National ICT Strategy and Plan NICI – 2015, and some initiatives are dedicated to education, such as the SchoolNet Project. The Project aims to

[15] "Challenges and best practice in quality education in Rwanda" presented by donors at Mini Joint Review of the Education Sector held on 11 April, 2011.

[16] In urban areas, electrification of homes has increased from 23% to 46%, and in rural areas from less than 1% to 5%. High increases can be found in Kigali City (30% to 56%), the Western Province (2% to 8%), the Northern Province (1% to 7%) and the Eastern Province (2% to 6%).

increase ICT usage in 12-year basic education schools thereby enhancing teaching and learning through ICT. Two Outcome Indicators are: 1) 50% of 12-year basic education schools equipped with ICTs by 2013 and 2) 50% teachers using ICTs in teaching by 2013. It builds on the numerous ICT in education initiatives such as One Laptop per Child (OLPC) project and aims to ensure that all primary school students have access to ICT[17]. There are cases when computers are distributed to schools, but due to lack of electricity, those computers could not be put into good use by schools (Interview with School Head teacher, 2012).

Table 4-8: Proportions of Households with Improved Drinking Water Source, Electricity and the Internet (2010/11)

	Southern	Northern	Western	Eastern	Kigali	Rwanda
Proportion of households with improved drinking water source	74.8%	78.9%	74.2%	66.6%	82.7%	74.2%
Proportion of households using electricity as main source of home lighting	3.2%	6.7%	8.2%	5.6%	55.6%	10.8%
Households with access to the internet at home (including on mobile phone)	2.0%	2.7%	2.2%	1.4%	19.2%	3.7%

(Source: NISR, 2011)

(2) Number of Schools Applying Double-Shifting

In Rwanda, double-shifting or even in some cases triple-shifting, is applied in average public and government-subsidized schools from P1 to P6. The Nine Years Basic Education, Implementation Fast Track Strategies proposed in 2008 suggested that the double-shifting should be expanded to cover P1 to P6, instead of just P1 to P3. The exact number of schools applying double-shifting is not reported in MINEDUC statistics. Assuming that all the primary schools in Rwanda adopt double-shifting or triple-shifting, the maximum number of schools will be up to 2,543 (MINEDUC, 2012).

However, in cities where the number of classrooms is sufficient, those schools do not apply double-shifting, according to REB (REB, 2012). The schools in remote rural areas often distant from the main roads and communities close to the country borders tend to apply double-shifting more often than schools in urban areas. In the double shifting system, one group of students goes to school in the morning, and the next day, they go to school in the afternoon. Two groups alternate each day (Interview with REB, 2012). The benchmark to move away from double shifting to a single shift is achieving the level of pupils per classroom ratio at around 40 (Interview with UNICEF, 2012). According to ESSP 2010-2015, although double shifting is a transitional measure, there is no concrete plan yet how to gradually phase out the double

[17] To date 110,000 laptops have been imported of which 56,000 laptops were distributed to primary 4-6 students in 113 primary schools countrywide.

shifting system.

4.4.3 Procurement and Distribution of Teaching Material

(1) Procurement and Distribution System

Procurement and distribution of textbooks have been decentralized, and this has been a good success. Presently, the DEO coordinates and schools themselves decide and purchase textbooks according to their specific pedagogical demands. In the new system, a school chooses the titles and the number of textbooks within the limit of budget allocated to each school based on the number of enrolled students. DEOs collect these orders and purchase the textbooks collectively on behalf of the schools. The bidding is managed by the National Tender Board. The Textbook Approval Committee under REB usually signs a 5-year-contract with a publisher. Those suppliers provide new sets of revised textbooks. According to the EFA-FTI Catalytic Fund Basic Education Development Policy Grant, Report No: ICR00001729 (2011), there are 28 publishers, which provide textbooks, meeting the standards of Rwandan curricula. There are now school-based textbook selection committees established in 1,926 primary and secondary schools in Rwanda. District Education Officers are trained to use a software (Learning & Teaching Materials Management Software) to place orders for purchasing textbooks on-line. For Offices with limited internet access, they can still use the paper-based catalogues. As the electrification and the internet access still are obstacles, in order to fully take advantage of such on-line system, there is a need for improved supply of electricity, developing user manuals and providing further training (Interview with REB, 2012).

(2) Actual Situation of Distribution of Teaching Materials

MINEDUC aims to distribute one textbook per pupil for the core subjects in primary schools, and this is almost achieved. In secondary schools, this is not yet the case. In some science subjects, there is one textbook shared with two pupils, but in subjects such as history, this ratio is not being accomplished, as two to three students share a textbook during classes. The textbooks are usually kept in the school libraries. Besides classes, teachers use them to prepare for their classes and students review textbooks at the school libraries (Interview with REB, 2012).

4.4.4 Definition of Academic Ability

According to the current curricula for the primary education published by REB, the notions of academic attainment are described under the General Objectives of each curriculum as follows:

(1) Basic reading and numeracy skills:

【Reading skills】

- A sufficient command of vocabulary and language patterns to enable him / her to use English as a medium of instruction.
- Should manifest love for the English language.

- Read for pleasure and information.
- Write intelligently and in correct English a passage of continuous prose or dialogue.

【Numeracy skills】

- Apply the acquired knowledge to solving Mathematics problems.
- Solve everyday problems that need quick application of simple mathematical principles.
- Exploit the acquired Mathematics applications so as to use them later in the pupils' future training.

(2) Under the section describing why Social studies are to be taught now in Rwanda, one of the explanations is stated: "by the end of the Basic Education Programme, Rwanda wants the school leavers to be functional and practical generalists, and not specialist academicians. The country wants to produce leavers who will be able to effectively participate in the socio-economic development of Rwanda, on the one hand, and to continue with their secondary and higher education, on the other."

The general objectives of the Social studies are to:

- Help the learner understand the need and values of good citizenship, like responsibility, culture of peace, tolerance, justice, democracy, patriotism, solidarity and national unity and reconciliation, and his / her role in promoting these values.
- Help the learner to acquire work ethic, method and team spirit that will enable him / her to participate in developing resources for personal and collective welfare.
- Help the learner to develop critical thinking and a sense of curiosity and searching for further knowledge and skills through reading, drawing and interpreting sources of information.

4.4.5 Quality Assurance System of Education

(1) Promotion/Graduation System

Within the same level of education: primary, lower secondary and upper secondary, the students are promoted to upper grades without examinations. At P6 level and S3 level, there are mandatory national examinations, which grant the students who passed with leaving certificates. According to their grades, the students are selected and placed to respective schools of higher level in the order of their grades within the country. The Examinations and Accreditation Department of REB manages the national examinations, announcing of results and granting leaving certificates (Interview with REB, 2012).

Previously, the national examination at P6 was used to select the number of students according to the number of available slots at the secondary education. Primary students' performance is shown in Annex 4-16. In preparation for the launch of the Nine Years Basic Education, Implementation Fast Track Strategies, the number of students passing the national examination

at P6 has increased drastically in 2007.

Before REB was set up, the coordination between the entity responsible for developing curricula and the entity developing exams was weak. Therefore, in some cases, the content which was not taught at class was questioned in the exams (Interview with REB, 2012). The pass mark also changed every year depending on the available slots for students at the upper level schools rather than by academic criteria. Thus, comparison of results over time is not easy (WB, 2011). These situations make it difficult to judge the quality of education and its trends simply based on the exam marks or the number of students who passed.

(2) General Inspectorate of Education

The Education Quality and Standards Department of REB is in charge of the inspectorate system in the education sector. The inspectors make regular visits to schools nationwide to ensure that quality standards stipulated in the education laws are complied with by schools. They inspect teachers' performances and school management and provide support. The inspectorate team of each 5 province is composed of one regional supervisor and 5 pedagogical inspectors. Each pedagogical inspector is responsible for specific subjects. The five areas for respective five inspectors are: 1) Mathematics and Physics, 2) Chemistry and Biology, 3) History, Geography and Economics, 4) English, and 5) French, Kinyarwanda and Kiswahili. There are a total number of 30 pedagogical inspectors in Rwanda. Each of the five provinces has 6 inspectors.

Each District Education Officer (DEO) assigned in 30 Districts and the 416 Sector Education Officers (SEO) in 416 Sectors are also responsible for inspecting the schools within his / her designated administrative unit. However, SEOs report to DEOs, and DEOs have reporting responsibilities to the District Mayors. Inspectors have independent supervisory lines, in which they report directly to the General Inspectorate of REB (Interview with REB, 2012).

Inspectors perform their inspections following the official class evaluation forms and school visit forms with specific criteria listed. Every school in Rwanda is supposed be inspected at least once a year. In order to carry out this routine, inspectors develop annual and term plans outlining how to carry out school visits. On a weekly basis, they spend 3 days for school visits and 2 days for reporting and paper work. Each year, the Education Quality and Standards Department of REB compiles an annual report to the Minister in charge of primary and secondary education. When any issues requiring immediate attentions arise, special arrangements are made to carry out detailed investigations, which may not have been planned within the annual or terms plans (Interview with REB, 2012). However, it is also reported that, according to a survey conducted by the World Bank, in 2009, nearly half of the schools were not inspected (WB, 2011).

4.4.6 Curriculum

(1) Present System and Process of Curriculum Development and Approval

The core missions of the Curriculum & Pedagogical Materials Department of REB are the following: 1) Elaborate curriculum for pre-primary, primary, and secondary schools; 2) Update them on-line (or the hard copies) and visit schools to deliver them if necessary (in some cases with the assistance of the Inspectorate Office); and 3) Train the teachers about the new curricula through training of trainers (Interview with REB, 2012). Syllabus review takes place every 3 to 4 years, and curriculum revision takes place every 5 years. The curricula were revised to respond to the change of language of instruction from French to English, and this process is almost completed. The Department also has a role to ensure textbooks and reading materials related to the curricula are available for procurement by schools.

REB plans to launch the Curriculum 2020. They will update / replace all the existing curricula being used between 2010 and 2015. By 2016, a whole set of new curricula will be in place. At the moment, curricula are being updated at different timings, but from 2016, all the curricula will be revised at the same time. Syllabus review will take place every 3 years and curriculum review every 5 years. The Department plans to develop a guideline for curricula updating (Interview with REB, 2012).

(2) Capacity of Curriculum Development Agency

There are 43 staff members in the Curriculum & Pedagogical Materials Department with 3 Units: 1) Unit of Science Curriculum (math, biology, chemistry, etc.) (11 staff members), 2) Unit of Humanities and Languages (14), and 3) Production Unit (16). The Department is headed by the Deputy Director-General (supported by one executive assistant). There is one curriculum developer per subject. Previously there were 3 people per subject until the establishment of REB. The number of curriculum developer per subject has been reduced mainly due to budget constraints. However, this new arrangement increased the salary per developer, which should be a good motivating factor for the developers (Interview with REB, 2012). According to the Deputy Director-General of REB in charge of the Curriculum & Pedagogical Materials Department, the capacity of the curriculum developers is sufficiently high as the developers have the best qualifications, which can be obtained in Rwanda.

4.4.7 Languages of Instruction

There are three official languages: Kinyarwanda, French and English according to the Constitution. Previously, a trilingual policy was adopted and there was a choice of medium of instruction based on the linguistic background and experience of the pupils. In reality, until 2009, French was mainly used as a medium of instruction. However, this changed with Rwanda becoming a member of the East African Community (EAC) in 2007. The country envisaged English as an important vehicle for international relations, trade and socioeconomic development and as a gateway to the global knowledge economy. In this context, a new policy was adopted in 2008 and implemented in 2009, to use English as the medium of instruction throughout the education system. This has provided new roles of these three languages:

Kinyarwanda as the bedrock of initial literacy and learning; English as the new medium of instruction; and French as an additional language. Since 2011, Kinyarwanda became the medium of instruction for P1 to P3, considering the fact that many children use Kinyarwanda at home (IPAR, 2012). From P1 to S6, English became the compulsory subject.

As most of the teachers in Rwanda were educated in French, the current levels of English language proficiency amongst teachers are still low. In a baseline survey in 2009, 85% of primary teachers and 66% of secondary teachers only had beginner, elementary or pre-intermediate levels of English (MINEDUC, 2010b). Rwanda chose a path to transform the country from Francophone into Anglophone in a relatively short period of time and make concentrated efforts (Interview with the Embassy of Rwanda, 2012). The government is launching various training programmes to increase the proficiency levels of teachers in the country.

Concrete English language training programmes are listed below:

- With English Language Training (ELT), 43,820 primary and secondary school teachers are being trained via face-to-face training programmes.
- MINEDUC is dispatching English mentors, who will assist the teachers in teaching English language and using English as the medium of instruction. Vacancy announcements are made within the country and neighboring English speaking countries to attract qualified mentors. The aim is to recruit 2,662 mentors, however, at the moment, there are only 84 Rwandan mentors recruited and being assigned to schools. Although the job adverts are posted in countries such as Uganda, Kenya, Tanzania, etc., due to the lower levels of salary, the number of applicants is not as high as expected.
- Through Rwanda READ, textbooks and teaching materials in English are planned to be distributed (JRES, 2012).

4.5 Teachers

4.5.1 Teacher Qualification and Placement

The key constraints and challenges identified in this Policy paper are:

1) The limited capacity of the teacher education system to meet the expanded system proposed in the Education Sector Strategic Plan;
2) The heavy workload of teachers especially in primary schools arising from the increased enrollment in primary schools;
3) A shortage of qualified science and language teachers;
4) Lack of proper institutional arrangements to address teacher training and management bottleneck;
5) High dependence upon expatriate teachers in the secondary school sector; and

6) Staff accommodation.

The guiding principles of the Sector are:

1) Measures will be introduced to improve teachers' working conditions and status, especially in respect of their recruitment, training, remuneration and career development opportunities;
2) Teachers at all levels will be trained in sufficient numbers and quality, and head teachers shall receive special training in school management;
3) Teachers training through both per-service and in-service teacher training using a range of methods; and
4) Incentives for teachers to engage in continuing professional development will be introduced.

(1) Number of Teachers

The total number of primary teachers in 2011 was 40,299, composed of 19,513 male teachers (48.4%) and 20,786 female teachers (51.6%) (Table 4-9). Since 2005, females outnumber the males slightly. For secondary education, the total number of teachers in 2011 was 20,522, composed of 14,818 males (72.2%) and 5,704 (27.8%) female teachers (Table 4-10). In secondary education, there are 2-3 times more male teachers than females (Table 4-10). One out of ten teachers in secondary education is from Democratic Republic of Congo (WB, 2011).

Table 4-9: Number of Teachers in Primary Education (2005-2011)

	2005	2006	2007	2008	2009	2010	2011
Teachers	29,033	30,637	31,037	35,672	35,664	36,352	40,299
Male Teachers	12,330	12,835	14,449	16,711	16,770	16,838	19,513
Female Teachers	14,614	15,639	16,588	18,961	18,894	19,514	20,786
Male Teachers (%)	45.8%	45.1%	46.6%	46.8%	47.0%	46.3%	48.4%
Female Teachers (%)	54.2%	54.9%	53.4%	53.2%	53.0%	53.7%	51.6%

(Source: MINEDUC, 2011 & 2012)

Table 4-10: Number of Teachers in Secondary Education (2005-2011)

	2005	2006	2007	2008	2009	2010	2011
Teachers	7,610	7,818	12,103	10,187	14,426	14,477	20,522
Male Teachers	5,986	6,010	9,016	7,691	10,324	10,600	14,818
Female Teachers	1,624	1,808	3,087	2,496	4,102	3,877	5,704
Male Teachers (%)	78.7%	76.9%	74.5%	75.5%	71.6%	73.2%	72.2%
Female Teachers (%)	21.3%	23.1%	25.5%	24.5%	28.4%	26.8%	27.8%

(Source: MINEDUC, 2011 & 2012)

(2) Number of Teachers by Qualification

There are three levels of teaching qualifications in Rwanda. By completing lower secondary

education (S1 to S3), A2 Level certificate can be obtained. This qualifies one to teach at primary level. With the upper secondary education (S4 to S6) completed, a diploma is granted. The diploma level teachers are qualified as A1 level to teach at lower secondary schools. To be qualified to teach at upper secondary level, A0 level education is necessary by obtaining a university degree (MINEDUC, 2012).

In 2011, 98.6% of primary teachers were qualified. In lower secondary education, only 64.4% of teachers were qualified out of 13,206 teachers. In lower secondary education, the proportion of female teachers is relatively low at 27.8%.[18] To be qualified to teach at lower secondary schools, A1 qualification (diploma) is required. However, the enrollment rate of female students for higher education is still lower than that of male counterparts, being at 43.2% out of the total enrolled students (MINEDUC, 2012). KIE is currently offering distant learning programmes for unqualified teachers. ESSP 2010-2015 points out that although there is no shortage of students entering teacher education programmes, too few trainees go on to enter the teaching profession. Of those who do, many leave the profession within 5-10 years (MINEDUC, 2010b).

There is no database or a sub-data set in EMIS, which keeps a track record of teachers' turnover rates and the reasons for leaving their jobs. According to ESSP 2010-2015, there are many teachers leaving the job within the first 5 years of employment (MINEDUC, 2010b).

4.5.2 Teacher Education System

(1) Pre-service Training System

For pre-service training system, there are 10 Teacher Training Colleges (TTC) to train primary school teachers. The two Colleges of Education (COE) are responsible for training lower secondary school teachers. TTCs grants A2 level qualification and COE grants A1 qualification. Pre-service training for lower and upper secondary education is provided by KIE. KIE grants A0 qualification to their graduates. In 2008, the enrolled numbers of students in these institutions respectively were: 3,664 in TTCs; 675 in CoE; and 2,832 in KIE (WB, 2011).

In secondary schools, there are a sizable number of teachers with university degrees but without background in education. Those degree holders are considered as unqualified teachers although they may have degrees in the subjects that they are teaching or long years of teaching experiences. For those types of teachers already in-service, KIE offers a 6-month diploma course in education. KIE is responsible for the development and revision of all the curricula for pre-service teacher training.

[18] As there is a lack of qualified teachers in Rwanda, it is allowed to employ teachers from overseas in public and government-subsidized schools in Rwanda. Teachers from neighboring countries such as Democratic Republic of Congo (DRC), Kenya and Uganda are forming important teaching workforce in the country. The detailed composition of those overseas teachers in terms of their number and nationalities etc. is not clear (WB, 2011).

(2) In-service Training System (INSET)

Some of the on-going in-service training initiatives in Rwanda are: distance learning programmes to provide teacher's qualification to unqualified teachers as part of DFID-supported KIE' programme since 2001, face-to-face training programmes for unqualified teachers by KIE, the English mentor system, and Project for Strengthening Mathematics and Science in Secondary Education (SMASSE) by JICA. The distance learning programmes are taught by distributing paper-based textbooks and through intensive weekend and holiday classes. Unqualified teachers are able to obtain A1 within 3 years.[19] The tuitions for the distance learning programmes are financed by the government, though expenditures related to transportation, accommodation, food expenses, etc. are born by the students themselves. In December, 2006, there was a first cohort of 350 graduates, and in July, 2007, the second cohort of 1,000 students entered the distance learning programme (MINEDUC, 2010b, WB, 2011).

4.5.3 Working Conditions for Teachers

(1) Teacher Salaries

According to various surveys on teachers' working conditions, the levels of teachers' salaries are perceived to be low by teachers themselves. There is a gap in terms of salaries between teachers and other public servants as well. Teacher net monthly pay compared with other civil servants is quoted in Table 4-11. In 2008, teacher net monthly pay by qualification was as follows: for certificate teachers at 27,012 RWF, diploma teachers at 89,000 RWF, and degree teachers at 113,000 RWF. On the other hand, net monthly pay by grade for other civil servants was as follows: certificate holders at 80,012 RWF, diploma holders at 144,000 RWF, and degree holders at 200,000 RWF (WB, 2011).

In 2003, salary expenditure per staff was around 3.3 times GDP per capita at primary level and 6 times GDP per capita at secondary level (MINEDUC, 2006). According to a World Bank survey conducted in 2002 in 33 African countries,[20] the salary expenditure per staff at primary level was 4.4 times GDP per capita on the average. It is recommended by this survey that, salary expenditure per staff should be 3.5 times GDP per capita as service delivery benchmark. However, the fact that Rwanda is a land-locked country and the cost of living is relatively higher should also be taken into consideration. In Rwanda, there is no systematic raise of salary according to teachers' years of working experiences or age (Interview with JICA, 2012). In practice, teachers' salaries are supplemented by financial contributions by communities, often through Parent-Teacher Associations (PTAs). However, when compared with neighboring countries in Africa, the level of teachers' salaries is not high.

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[19] DFID provided financial support until 2006, and AfDB started assisting the distance-learning programme through budget support from 2007.

[20] World Bank (2002) "Financing Education for All by 2015: Simulations for 33 African Countries"

Table 4-11: Teacher Net Monthly Pay Compared with Other Civil Servants, 2008 (RWF)

Grade	Teacher	Other
Certificate	27,012	80,012
Diploma	89,000	144,000
Degree	113,000	200,000

(Source: WB, 2011, based on Ministry of Public Service and Labor data.)

(2) Conditions of Teacher Employment

The increase in the budget allocation for teachers' salaries is not catching up with the increase in the number of teachers needed to respond to the expanded access to education as a result of 9YBE and 12 YBE (Interview with MINEDUC, 2012). In order to improve the incentive mechanisms for teachers in Rwanda, a credit system called SACCO was launched. Another initiative is to select outstanding teachers and award them with one cow per person for their high achievements. According to the World Bank CSR 2011, teacher's turnover rate is not high in Rwanda, compared to neighboring countries. However, on the other hand, it is also suggested that the limited employment opportunities in other sectors, may be one of the reasons for low turnover rate (WB, 2011). There is no database or a sub-data set in EMIS, which keeps a track record of teachers' turnover rates and the reasons for leaving their jobs. It may prove useful to start gathering such information in a systematic manner.

In 2011, a decision was made by the Rwandan Government to raise teachers' salaries by 10%.[21] Furthermore, in 2012, a new system was introduced to increase teacher's salary by 3% each year to reflect the number of years of working experience in the remuneration scheme (Interview with REB, 2012). While this is a noteworthy effort, considering the relatively high inflation rates in Rwanda, 8.3% in 2011, the rise may not be sufficient to cover the rising costs of living in Rwanda.

4.5.4 Teacher Recruitment / Management

The DEOs are in charge of teachers' recruitment. When there are positions to be filled, schools submit requests to the DEO. A DEO then advertises the vacancies and organize a committee for teachers' recruitment and evaluation. The selections are made based on the application documents and interviews. Written examinations are not usually part of the selection process. The selected candidates are recruited by the Ministry of Local Government (MINALOC) as civil servants (Interview with REB, 2012). There is no official transfer or rotational system for teachers working for public and government-subsidized schools. Thus, when teachers are transferred, it is based on respective individual arrangements (Interview with REB, 2012). The performances of teachers are reported by head teachers to DEOs on an annual basis (Interview

[21] According to the material from JRES meeting in September, 2011.

with REB, 2012). However, in 2012, a document was issued by the Minister of State instructing the District Mayors, when recruiting teachers, “to prepare in advance the exam to be done by those who did not study education who wish to compete for those vacant posts. Those who studied education are not supposed to sit for the exam.” There is no systematic promotion system for teachers. Head teachers are appointed by the Government, however, there is no official examinations qualifying head teachers or minimum standards. Private schools recruit teachers following their own criteria and procedures (Interview with REB, 2012).

CHAPTER 5：PUBLIC FINANCE AND ADMINISTRATION IN THE EDUCATION SECTOR

5.1 Public Administration

5.1.1 Decentralization of the Education Sector

MINEDUC is the central organ for the administration of education in Rwanda. The local administration of education is decentralized to the 30 DEOs located in the district administration office headed by the Mayors. The education sector is experiencing a decentralization process from 2000, and more progressively from 2006. Sets of duties and authorities of MINEDUC are being devolved to Districts, Sectors, schools, and to some extent to communities.

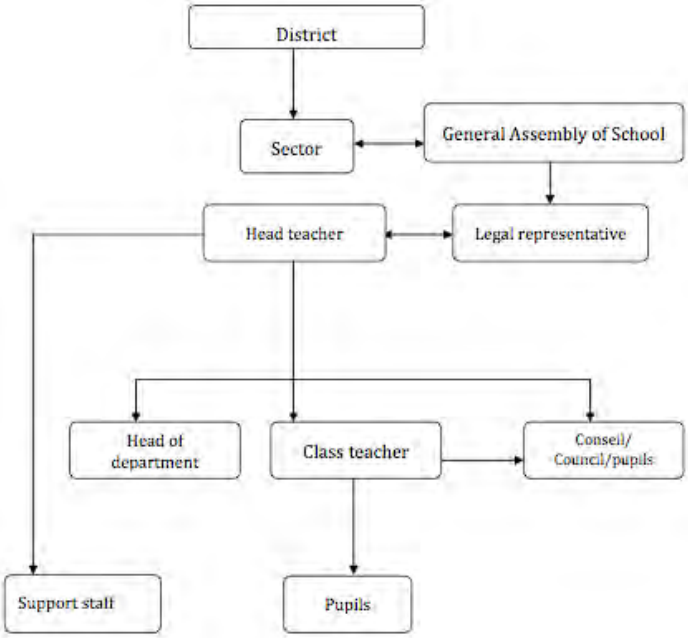
Some of the concrete changes brought about by the decentralization policy are: the reduction in the number of staff of MINEDUC, creation of REB, the implementation of school-based management (SM) in 2003, the introduction of performance contracts for all civil servants in 2006, the creation of an Educational Management Information System (EMIS) for data collection and planning, and the decentralization of the procurement and distribution of textbooks. The newly defined role and responsibilities of MINEDUC are: policy and strategy formulation, guidance, planning, monitoring and evaluation. REB is mandated to provide specialized, professional teacher management, examination organization, curriculum development, etc. DEOs play major part in overall district school management: planning, budgeting, implementation and monitoring, teaching staff allocation, from regular staff increases, teacher pay list preparation and MINEDUC policy implementation (WB, 2011, Interview with Head teachers, 2012). In addition to District Education Officers, who is in charge of administration of education at the District level, from 2012, a Sector Education Officer is deployed in each of the 416 Sectors.

So far, the decentralization in the education sector has overall contributed to improved delivery of services (WB, 2011, Interview with Head teachers, 2012). In particular, the decentralization of the procurement and distribution of textbooks has been perceived as quite successful. This system allows schools to purchase the number of textbooks, which are needed, in a timely manner within the limit of their allocated budgets (Interview with Head teachers, 2012). Moreover, during the interview with a head teacher of 12 YBE school, there was a testimony to positively assess the deployment of SEOs in enabling much needed support to reach schools (Interview with Head teachers, 2012).

The role of the head teachers is quite diverse. He / she is tasked to perform as coordinator, manager of the school, a negotiator with the local government and a person liaising with parents and the local community members. The NCDC (the former National Curriculum Development Centre, now a Department of REB), with the assistance of the Flemish Association for

Development Cooperation and Technical Assistance (VVOB), produced a series of training modules for teachers and school management. Within a module developed in 2008, "Available modules of Primary Schools: Administration of primary schools," a typical structure of primary school management is illustrated as shown in Figure 5-1. The administration is headed by the Head teacher, and under him / her, there are the Head of department and Class teachers. There are also support staff members in charge of finances and administration. Private schools are often staffed with a legal representative. The Head teacher plays a significant role in school management including on issues such as deciding on how to use the capitation grants. The Head teachers' association is quite active. They meet twice per term, and a national assembly is held each year.

In Rwanda, 94% of primary and secondary schools organize PTA. Out of those PTAs, 79% of them meet quarterly to discuss school related matters. Their involvement in school management and the use of capitation grants vary in degree (WB, 2011).



(Source: NCDC, 2008, p.29)

Figure 5-1: Typical Administration Structure of Primary Schools

5.1.2 Management Capacity of the Ministry of Education

This study has reviewed the management capacity of the MINEDUC with reference to the Capacity Development Results Framework[22] (CDRF) of the World Bank Institute.

Together with human, financial and natural resources, the CDRF regards sociopolitical, institutional and organizational capacities of program / project implementation agency (government, private sector, or civil society) as potential contributing / hindering factors toward achievement of development goals. To this effect, the CDRF aims to construct plans for capacity assessment and development and to conduct monitoring and evaluation by measuring capacity factors, which express 1) conduciveness of the sociopolitical environment,[23] 2) efficiency of policy instruments[24] and 3) effectiveness of organizational arrangements[25] (WB, 2009).

The study team considers the above factors to be linked with the interests of this study in the following ways. While conduciveness of the sociopolitical environment is related to relevance or validity of the sociopolitical environment in basic education, the efficiency of policy instruments is considered to have close ties with the efficiency of conducting improvement plans on basic education, and effectiveness of organizational arrangements links with the effectiveness of identifying how the Ministry interacts with stakeholders and makes use of resources to achieve development goals.

As there is a limit to adopt the CDRF rigorously in this study within a given timeframe for this assignment, in this report, a similar framework learning from CDRF to review the management capacity of MINEDUC is used, as shown in Table 5-1. The frame has utilized the basic concepts of the CDRF while using the terms relevance, efficiency and effectiveness in place of the capacity factors of the CDRF. (However, their definitions basically followed those of the CDRF). The frame has chosen possible indices from the CDRF indices that are reviewable in

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[22] A framework created and adopted by the World Bank to design, enforce, monitor, manage and evaluate development programs and projects aimed at capacity development.

[23] Factor composed of the political and social forces that determine priorities of development goals set by the government, the private sector, and civil society. Indicators for this factor include leadership commitment, consistency with social norms, participation of stakeholders in decision-making, status of accountability of public institutions, and transparency (WB, 2009).

[24] This refers to the mechanisms used to guide stakeholder actions to achieve each development goal, which include administrative rules, laws, regulations, and standards. Indicators for this factor include clarity of policy documents, clarity of stakeholders' rights and role, legality and relevance with upper goals of policy documents, feasibility against the current administrative procedure, flexibility of policy documents, and resilience against corruption (WB, 2009).

[25] This factor is composed of cooperation structure including the systems, rules of action, processes, personnel, and other resources that government and non-government stakeholders use to achieve development goals. Indicators for this factor include clarity of development goals, vision and mission, level of achievement of outcomes directly linked with development goals, efficiency to achieve output, financial management capacity and certainty of financial source, trust among stakeholders, and adaptability to change of external environment (WB, 2009).

this study based on the information gathered through the study.

Table 5-1: Frame to Review the Management Capacity of the Ministry of Education

3 review points	Relevance	Efficiency	Effectiveness
Viewpoints in the reviewing process (Indices)	・Is MINEDUC demonstrating strong commitments? ・Are stakeholders able to participate in the processes of formulating sector plans and policy related documents? ・Is MINEDUC held accountable?	・Are the roles of each stakeholder in and outside MINEDUC clearly defined? ・Are plans such as the sector strategic plan compatible with policies of higher order? ・Are measures taken to prevent corruptions?	・Are goals in the sector plans achieved? ・Are implementation and budget executions in line the sector plans? ・Is MINEDUC capable of coordinating inputs from relevant stakeholders?

(Source: Developed by the study team in reference to the CDRF)

Results of the review are as follows.

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(1) Relevance

The ESSP 2010-2015 is the principle guiding document in the education sector. MINEDUC is demonstrating strong ownership in policy formulation and its implementation in the sector (Interviews with MINEDUC, DFID, and UNICEF, 2012). MINEDUC holds regular and open consultation processes with various stakeholders including the development partners. MINEDUC involves stakeholders in the development of all sector policies and plans. When developing ESSP 2010-2015, the Ministry held discussions with development partners, NGOs, the private sector and local stakeholders (Interview with the Ambassador of Rwanda to Japan, 2012). The budgeting process is driven by the Planning Unit of MINEDUC. The draft budgets are usually presented to the development partners at Joint Sector meetings to seek feedback and advice.

However, MINEDUC also acknowledges the need for further capacity building in the education sector and has taken measures for capacity development utilizing the capacity building pool fund. As a result of decentralization, the administrative responsibilities are increasingly devolved to districts. However, the capacities of DEOs are yet to be strengthened in terms of planning, monitoring, and financial management. It is also pointed out that there is a lack of internal auditing mechanism for budget execution at the district level (MINEDUC, 2010a). There is further need for capacity building and training programmes for DEOs at district and SEOs at sector level.

(2) Efficiency

In the education sector, there have been a series of reform initiatives including the establishment

of REB and decentralization. Initially, the decentralization of financial management at the local level did not catch up with the speed of devolution of management responsibilities. The disbursement of capital grants were not made in a timely manner, and this was a serious problem. However, the practice of capital grant distribution is improving and increasingly being paid on time (ODI & Mokoro, 2009). However, there is also still a need to enhance the capacities of the DEOs and SEOs to deliver on the new management responsibilities stipulated in their job descriptions. It is pointed out that the capacities at local level for planning and policy implementation need to be further strengthened to ensure that medium and long term District Education Plans are formulated and implemented well in order to achieve the EDPRS goals at the local level. At the central level, as mentioned previously, MINEDUC has a very lean structure, and yet there are still vacancy posts to be filled out (JICA HQs, 2012).

The Ministry is run by a relatively small number of core staff. Both at the central and local level, the administration in the education sector is operated by a relatively slim structure, and this at the same time shows the fact that the administration is efficiently run, and still on track in achieving the EDPRS goals, with limited number of staff. This study did not particularly focus on the aspect of corruptions. The survey by Transparency International indicates impressively positive results in terms of Corruption Perceptions Index (CPI) in the country.[26]

(3) Effectiveness

In achieving the EDPRS outcome in the education sector, as indicated in the Common Performance Assessment Framework (CPAF), good results have been made in term of access. However, there are still challenges remaining especially on the indicators relating to quality of education. As there is a lack of analysis in finding out the underlining causes for the changes in school enrollments, the reasons for persistently high dropout rates, etc., the research and analytical capacity of MINEDUC is still to be further strengthened as well.

[26] According to Transparency International (http://cpi.transparency.org/cpi2011/), the Rwandan Government's Corruption Perceptions Index is 5.0, ranking 49th out of 182 countries surveyed. This places Rwanda the 4th in ranking among 53 African countries. Among the 13 countries studied by the present study, Rwanda is demonstrating the best result (1st in ranking). (Among 53 African countries, the top 3 countries were: 1. Botswana, 2. Cape Verde, 3. Mauritius)

Table 5-2: Common Performance Assessment Framework (CPAF)[27]

	Baseline (2009/10)	Targets (2010/2011)	Actual to date (2011/12)
1. Primary school completion rate	76%	59%	79.0%
2. Primary school completion rate for girls	80%	58%	82.0%
3. Primary school pupil to qualified teacher ratio	63:1	64:1	58:1
4. Transition from basic education to upper secondary education	90%	88%	94.0%
5. Percentage of students (male/female) in science streams taking S6 national exams who pass with a minimum for public university entrance to study a science discipline	29%/19%	30%/20%	31%/21%
6. Proportion of employers who are satisfied with the performance of TVET graduates	67% (2010)	68% (2011/2012)	N.A.

(Source: Education Sector Working Group, 2012)

In 2008, the rate of budget execution was 98.6%, faring well compared to other Ministries (in the same year, the rate of budget execution for the Ministry of Health was 79.8%). The implementation rate against the planned budget was high. However, in some areas, MINEDUC lagged in execution such as teacher training (74.1%), TVET (76.3%) and non-formal education (83.9%) (WB, 2011). It deserves to continue examining the specific reasons for these lower rates of budget execution.

As previously mentioned, the capacity of MINEDUC to coordinate inputs from relevant stakeholders is relatively high. Also, thanks to the implementation of the sector budget support, the partnership between the Ministry and development partners is close and based on trust (ODI & Mokoro, 2009). The education sector is one of the first to apply SWAps and sometimes referred to as a model for donor coordination (MINECOFIN, 2012). By the introduction of the DoL framework, some development partners such as the World Bank has withdrawn its assistance to the basic education sector. In this context, the impacts of DoL should be carefully assessed.

5.2 Educational Finance

5.2.1 Budget of Education Sector

(1) Proportion of Education Sector in the National Budget / Expenditure and GDP

Since 1996, total education spending has increased in nominal terms up to 2008 (Table5-3). The percentage of total education spending of GDP has fluctuated between 3.7% and 4.1% between 2005 and 2008 (the FTI Indicative Framework benchmark, the average of countries showing positive performance in achieving EFA, is: 2.8%-3.6%). However, when considering the spending out of government revenues net of grants, the allocation to the education sector has

[27] The Common Performance Assessment Framework (CPAF) serves to monitor the progress in achieving the EDPRS outcome in the education sector.

decreased since 1996 (WB, 2011).

The economic growth is predicted to slow down in the next few years, and there is a concern for widening financial gaps for the education sector (WB, 2011). The education sector is placed to compete with other priority sectors such as road construction, electrification, water, ICT, etc., within the context of limited budget envelop (MINEDUC, 2010b).

Table 5-3: Total Education Spending (1996-2008) (Billion RFW)

Year	Total Education Spending			
	Billion RFW	As % of GDP	As % of Total Spending	As % of Government Revenues Net of Grants
1996	13,784	3.2	14.5	35
2000	27,614	4.1	21	40.3
2005	49,359	3.7	14.5	27.4
2006	60,934	3.9	15.9	29.3
2007	89,351	4.8	19.2	35.3
2008	99,787	4.1	15.4	26.2

(Source: WB, 2011, p.31)

(2) Budget by Sub Sector

In 2009/10, the largest portion of the education expenditure was allocated to primary education (39.4%). Higher education and lower secondary education, respectively expend the second and third largest allocations of budgets. The level of expenditure by pre-primary education remains as low as 0.2% (Table5-4) (MINEDUC, 2011).

Table 5-4: Recurrent and Capital Expenditure by Sub-sector in 2009/10 (Million RFW)

	Recurrent expenditure	Capital expenditure	Total	Percentage out of total expenditure
Pre-primary	299	-	299	0.2%
Primary	55,809	3,810	59,619	39.4%
Lower secondary	24,478	7,076	31,554	20.9%
Upper secondary	9,718	-	9,718	6.4%
Pre-service teacher training	1,480	181	1,661	1.1%
TVET	7,366	1,816	9,182	6.1%
Higher education	33,438	2,241	35,679	23.6%
Non-formal	435	-	435	0.3%
STR	1,648	-	1,648	1.1%
Institutional support	1,411	-	1,411	0.9%
TOTAL	136,083	15,124	151,207	100.00%

(Source: MINEDUC, ESSP 2010-2015, p.49)

Table 5-5 quotes the projected expenditures budget in the education sector from 2010/11 to 2014/15, indicated in ESSP 2010-2015. During the 5 years of ESSP implementation period, the total expenditure projected is 1,572,260 million RWF. These expenditure requirements are due

to primarily by enrollment, with the increase in the education budget linked to the increased number of students in the education sector, whilst also recognising the necessary inputs to ensure quality of learning. The growth in budget reflects both the continuing commitment to universal 9YBE and the anticipated increased demand for post-basic education. The financial projections allow for steady growth of the rate of transition from basic to upper secondary and TVET, then on to higher education (MINEDUC, 2010b). Based on this ambitious estimate, the proportion of financial gap (shown in Figure 5-2) will continue to increase each year up to over 80% in 2014/2015. MINEDUC also referred to the possibility for readjusting the estimates as the gap may be too large to fill (Interview with MINEDUC Planning Dept., 2012).

Table 5-5: Education Sector Budget by Sub-sector (2009/10-2014/15) (Million RFW)

	2010/11	2011/12	2012/13	2013/14	2014/15
Pre-primary	215	511	646	826	1,050
(% of total expenditure)	0.1%	0.2%	0.2%	0.3%	0.3%
Primary	64,438	91,656	104,817	127,733	155,116
(% of total expenditure)	32.5%	37.4%	38.0%	39.5%	41.0%
Lower secondary	64,738	71,896	75,259	84,777	93,525
(% of total expenditure)	32.6%	29.3%	27.3%	26.2%	24.7%
Upper secondary	10,150	20,150	28,125	35,209	45,638
(% of total expenditure)	5.1%	8.2%	10.2%	10.9%	12.1%
Pre-service teacher training	3,105	3,992	4,464	4,993	5,941
(% of total expenditure)	1.6%	1.6%	1.6%	1.5%	1.6%
TVET	15,223	12,653	13,956	15,619	17,395
(% of total expenditure)	7.7%	5.2%	5.1%	4.8%	4.6%
Higher education	35,146	38,401	42,439	47,074	52,412
(% of total expenditure)	17.7%	15.7%	15.4%	14.6%	13.8%
Non-formal	458	495	536	580	627
(% of total expenditure)	0.2%	0.2%	0.2%	0.2%	0.2%
Science, technology & research	3,513	3,618	3,727	3,838	3,954
(% of total expenditure)	1.8%	1.5%	1.4%	1.2%	1.0%
Institutional support	1,507	1,710	2,000	2,379	2,812
(% of total expenditure)	0.8%	0.7%	0.7%	0.7%	0.7%
Total	198,503	245,083	275,969	323,029	378,470
(% of total expenditure)	100.0%	100.0%	100.0%	100.0%	100.0%

(Source: MINEDUC, 2010)

(Source: MINEDUC, 2010, p.52)

Figure 5-2: Financing Gaps (2009/10-2014/15) (RWF million and % of total resources)

(3) Breakdown of Education Budget

In 2008, the largest portions allocated out of the education budget are the teacher and staff salaries (45.1%), administrative and pedagogical (41.4%) and social (13.5%) (WB, 2011, p.149). In the context of 9YBE and 12YEB implementation, the teachers' salaries are on the rise. Due to the 12YEB policy taking form on the ground in 2012, the construction and equipment budget is being increased in the 2012/13 budget (JRES, 2012).

(4) Proportion of Domestic Financing and Donor Assistance in Education Budget

In 2009/10, 23% of the sources of funding came from donors (MINEDUC, 2010b). In 2005, the donor assistance composed of 14% of the education budget (MINEDUC, 2006). Funding for education comes from three main sources (current figures in brackets): 1) domestic Government revenues (RWF 106,959 million), 2) donor Sector Budget Support (RWF 30,167 million) and 3) donor project support (RWF 851 million) (MINEDUC, 2010b, p.45).

Of the Government education funding, around 52% was allocated centrally by MINEDUC, 43% went directly to districts and schools and the remaining 5% to other Ministries involved in education related programmes. The resources of Government of Rwanda included general budget support from donors, which comprised close to 35%. Off-budget project support was estimated at US$ 30.1 million for 2009/10.

5.2.2 Flow and Administration of Funds Provided by Donors

There are mainly four types of donor assistance provided in the education sector: general budget support (GBS), sector budget support (SBS), the Capacity Building Pool Fund, and Project-based interventions (Table 5-6) (MINEDUC, 2010b). The signatories of the MoU are

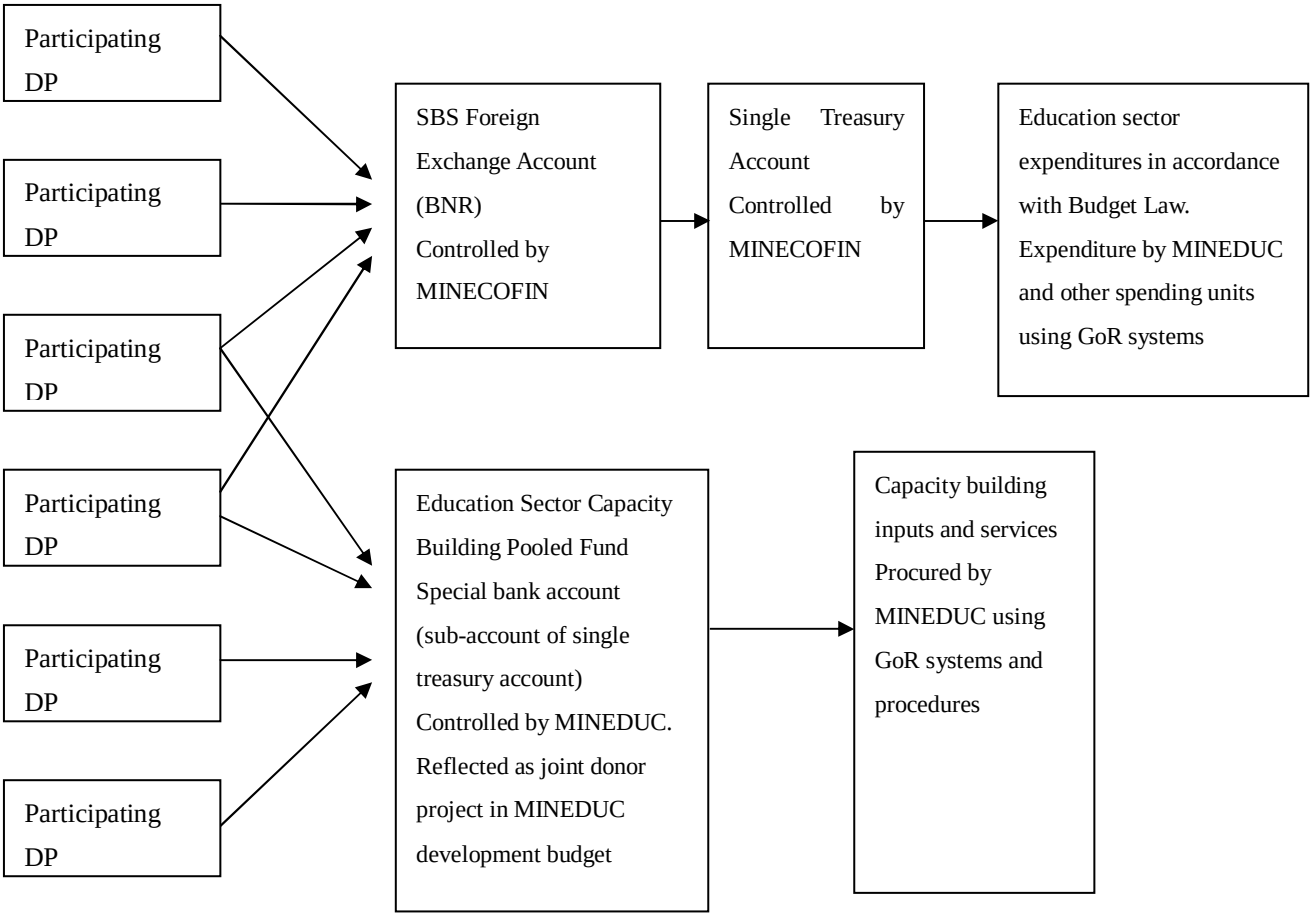
bound by the principles described in the MoU.

The financial flow of the sector budget support is illustrated in Figure 5-2 as Overview of Joint Education Sector Support (JESS) Programme Financing Flows, from the JESS Programme 2005 document. There are two paths of financial flows. The first is the financial flow which is deposited in SBS Foreign Exchange Account of the National Bank of Rwanda. This is a single treasury account controlled by MINECOFIN. Education sector expenditures are being made in accordance with the Budget Law. Expenditures by MINEDUC and other spending units are made using systems of the Government of Rwanda (GoR). The other path is using the Education Sector Capacity Building Pooled Fund. This is a Special bank account (sub-account of single treasury account) controlled by MINEDUC. This portion of the budget is reflected as joint donor project in MINEDUC development budget. Capacity building inputs and services are procured by MINEDUC using GoR systems and procedures

Table 5-6: Aid Modalities in the Education Sector

Aid modalities	Development Partners	Descriptions
General budget support (GBS)	African Development Bank, U.K., EC, the Netherlands, World Bank, Sweden, Germany	General budget support an education window. These programmes consist of general budget support programmes which have a specific tranche of non-traceable budget support.
Sector budget support (SBS)	African Development Bank, Belgium, Canada, EC, the Netherlands, World Bank, Sweden, Germany U.K., Fast-track Initiative (FTI)	These are programmes of non-traceable budget support earmarked to the education sector, or subsectors and budget lines within it.
Capacity Building Pool Fund	UNICEF	It is provided directly through traceable, earmarked support in the context of the JESS. This has been provided by UNICEF in the form, Harmonised Approach to Cash Transfer (UN-HACT).
Project-based interventions	Japan, U.S.A	The funding is controlled by the donors.

(Source: MINECOFIN, 2010, ODI & Mokoro, 2009）



(Source: MINEDUC, 2005, p.33)

Figure 5-3: Overview of Joint Education Sector Support (JESS) Programme Financing Flows

There are two forms of aid budgets in the education sector: on-budget support and off-budget support. The on-budget aid is defined as ODA (external grants and loans) included in the Finance Law, which is approved by the Parliament in accordance with the Organic Law No. 37/2006 of 12/09/2006 on State Finances and Property (the Organic Budget Law) and disbursed applying the budget procedures of the Government of Rwanda. There have been considerable efforts being made to ensure all resources for the Government sector be included in the budget approved by the Parliament. However, still 36% of ODA to Rwandan Government was reported to be off-budget (MINECOFIN, 2010/11). According to different donors, the least percentage of their ODA being on-budget support, the ranking was the following: 1) Canada (0%), 2) United

States of America (3%), 3) Japan (9%), 4) Global Fund (27%), and 5) United Nations (36%), among 15 development partners listed (MINECOFIN, 2010/11).

In 2010/11, the ODA to Rwanda by EDPRS sectors, the ranking was as follows according to the amounts being disbursed: 1) Health, 2) General Budget Support (GBS), 3) Agriculture, 4) Legislative / Executive organs, 5) Fuel and energy, and 6) Education. The Rwandan Government identifies performance indicators of aid effectiveness in terms of the use of country systems, predictability of ODA, effective division of labor among donors. The Rwandan Government aims to increase the proportion of general budget support within the overall aid structure, and to monitor the budget processes by the Parliament and promote the use of country systems. In terms of ODA predictability by sector, the 2010/11 data showed that among 16 sectors, the education sector is placed 11th and the percentage of predictability is 64% (MINECOFIN, 2010/11).

5.2.3 Management System of Education Budget / Public Expenditure

Rwanda's fiscal year starts from July and ends in June[28]. The budget formulation exercise is carried out guided by the Medium-Term Expenditure Framework (MTEF) and the Long-Term Strategy and Financing Framework (LTSFF). LTSFF is a 10-year-term budget plan, and this is broken into 3-year-term budgets MTEFs. Also consulting with the EDPRS goals, annual budgets are developed based on the MTEFs. MINECOFIN sets a budget ceiling per Ministry. MINEDUC formulates an annual budget within the ceiling through consultative processes involving REB and other entities. REB, Districts, Sectors, and schools submit their planned budgets, and MINEDUC consolidates them. The capitation grants are prepared by the District Education Offices, and distributed to schools. The salaries of District Education Officers and Sector Education Officers are paid by the Ministry of Local Government (MINALOC). In 2008, the rate of budget execution was 98.6%, faring well compared to other Ministries. However, in some areas the executions lagged behind, and this needs a careful consideration.

5.2.4 Distribution of Grants

Capitation grants are distributed to all the public and government-subsidized schools providing primary education. Capitation grants are provided through the District Education Offices. According to the Education Public Expenditure Tracking Surveys (PETS) by the World Bank in 2004, the delays in disbursing the quarterly capitation grants were pointed out at a serious problem. However, in the recent years, the disbursements are made in a timely manner in general, despite delays in some cases (Interview with MINEDUC and head teachers of groupe scolaires, ODI & Mokoro, 2009). In 2004, the amount of capitation grant was 300 RWF per pupil. It increased to 5,300 RWF in 2007. In 2011, the amount was again raised to 3,500 RFW

[28] After Rwanda has joined the East African Community (EAC) in 2010, the fiscal year also changed to comply with that of EAC, starting from July and ending in June. Since 2009/10, the July to June cycle is being applied in Rwanda.

per pupil and 12,500 RWF per teacher (ODI & Mokoro, 2009). This capitation grant to schools is a critical tool to make decentralization in the education sector work. The use of this grant is regulated by official guidelines, for instance, mandating schools to allocate 5% for teacher training, etc.

5.2.5 Private Education Expenditure

The level of private education expenditures depends largely on whether the child attends a public or a private institution. For public education, households tend to contribute to PTAs, school insurance, school uniforms, teaching materials, and transportation. For private education, teacher salaries are often paid directly by parents, thus, their financial contributions are substantial. Household spending on education has increased from 1.5 percent of GDP per capita in 2000, to 2.4 percent of GDP per capita in 2008. This makes the total estimated household investment in education RWF 58.6 billion in 2008. The overall private contributions to the total expenditure on education in Rwanda have increased from 29% to 42% in 2008. This is higher than in other African countries, where it accounts for 32 percent of total education expenditure on average (WB, 2011, p.147).

5.2.6 Unit Cost Analysis

Unit costs tend to be higher according to the levels of education: from RFW 18,675 in primary to RFW 105,091 in lower secondary and RFW 118,741 in upper secondary. In real prices, education unit costs increased at all levels between 1999 and 2008. While maintaining enrollment growths, especially at the secondary level, the government has succeeded in maintaining unit costs at a constant level over the past decade. Primary level unit costs in Rwanda are among the lowest in Africa according to a survey conducted by the World Bank. This provides a stark contrast with those countries in comparison when considering that Rwanda's GDP per capita is among the lowest in the region (WB, 2011).

5.2.7 Projection of Mid-term Demand for Teachers

The mid-term demand for teachers is projected in several reports. One of them, the Nine Years Basic Education Implementation Fast Track Strategies document predicts that total teacher requirements for primary schools would increase from around 35,000 in 2007 to 42,000 in 2015. According to the World Bank CSR scenario (p.139-141), around 16,600 TTC graduates will need to be recruited for primary schools between 2008 and 2020. This figure is 50 percent higher than the current TTC output on average. Under the same calculation model, a total of 36,000 lower secondary teachers have to be recruited between 2008 and 2020. This requires an average annual College of Education output of about 3,000 graduates, 6 times the output of 2009 (WB, 2011).

CHAPTER 6: TRENDS IN DONOR ASSISTANCE

6.1 Structure of Donor Coordination

In Rwanda, 24% of its GNI is dependent on ODA, and half of the national budget is resourced by ODA. Development partners operating in Rwanda, in order of largest budgets are: 1) USA, 2) UK, and 3) Belgium (MOFA Japan, 2009). The highest level of coordinating body between the Government of Rwanda and the development partners is the Development Partners Cooperation Group (DPCG) and its bi-annual meetings. Under DPCG, there are Sector Groups / Clusters, which meets every 2-3 months. In 2011, MINECOFIN issued a report titled, Donor Performance Assessment Framework, which is a good indication of government's strong ownership and initiative to improve donor coordination and performances. Annex 6-1 describes the framework of aid coordination in Rwanda.

In the education sector, the Education Sector Meeting is the main structure for donor coordination. The Sector Meeting is chaired by the Permanent Secretary of MINEDUC. Since 2003, DFID has been the lead donor, and now DFID and UNICEF are the co-chairs of the Sector Group. The Group meets quarterly, and of those meetings, twice a year they organize the Joint Review of the Education Sector (JRES). The results of JRES are reported to MINECOFIN in order to feed into the monitoring and stock-taking of EDPRS achievements. In addition, in MINEDUC, the Single Project Implementation Unit (SPIU) was established to coordinate, manage and implement all the projects and activities supported by development partners.

6.2 Trends of Cooperation by Each Donor

6.2.1 Trends in Donor Assistance

In 2006, the MoU was signed highlighting the critical importance of harmonization of among donors. The Rwandan Government, especially, MINECOFIN emphasizes that general budget support is the most preferred modality of assistance in Rwanda. However, at the same, line Ministries including MINEDUC also recognize the value of contributions by project-based assistance (Interview with JICA, 2012). Projects are not eliminated as aid modality in Rwanda, and a donor providing project-based assistance is also a signatory of MoU. For instance, JICA's assistance is primarily project-based, and it is still designated as an active donor within the DoL framework.

The donors who signed the 2006 MoU are listed in Table 6-1. The DoL framework agreed in 2010 designates DFID, Germany, Japan, UNICEF and the World Food Programme (WFP) as active donors in the education sector (MINECOFIN, 2012). With the implementation of DoL, one donor is allowed to support up to three sub-sectors. As a result, the World Bank, which used to be the second largest provider of assistance in the basic education sector, has withdrawn its programmes from the sector (Interview with DFID). In fact, this has not benefited the sector. The medium and long-term financial gaps are large, and thus, either the financial projections

need to be downscaled or new sources of financial resources have to be identified.

Table 6-1: Stakeholders in the Education Sector

National Stakeholders	Development Partners
MINEDUC	Signatories of the SWAps MoU:
Rwanda Education Board	UK (DoL; Co-Chair)
National Council for Higher Education	Belgium (DoL; Silent Partner)
National Council for Science, Technology and Innovation	Canada (DoL; Silent Partner)
Workforce Development Authority	Germany (DoL)
Rwandan National Commission for UNESCO	Japan (DoL)
Institute of Scientific and Technological Research	Sweden
Higher Learning Institutions	UN (UNICEF-DoL)
Umwalimu savings and Credit Cooperative	World Bank
	Non-Signatories of the SWAps MoU:
	AfDB (DoL; Silent Partner)
	Netherlands (DoL; Silent Partner)

Note: DoL indicates that the DP has a Division of Labour mandate to participate in the sector.
(Source: MINECOFIN, 2012, p.33)

6.2.2 Aid Volume and Content of Main Donors

Aid to the education sector (US$) (2009/10-2010/11) is summarized in Table 6-2. In the recent years, major interventions by donors are: Skills Development Project by the World Bank, Support to TVET strategy by the Belgium, Capacity development of Workforce Development Authority by GIZ, financial support to TVET by the Netherlands, budget support for promotion of math and science education by African Development Bank (AfDB) (ODI & Mokoro, 2009). DFID, up to 2006, had supported the distance learning programmes for unqualified teachers by KIE. However, since 2007 DFID has shifted all the assistance to general budget support. Belgium Technical Cooperation (BTC), in collaboration with REB, supported the development of new curricula for science subjects for secondary education during 2005 and 2008 (ODI & Mokoro, 2009). In 2006, Fast-track initiative (FTI) funding was approved to provide 70 million US$ in the areas of teacher training, textbook development, girls education, etc.

Table 6-2: Aid to the Education Sector (US$)(2009/10-2010/11)

Donors	2009/10			2010/11		
	Interventions	US$	(%)	Interventions	US$	(%)
AfDB	4	15,794,275	10.8%	2	5,366,224	12.1%
Belgium	7	13,823,702	9.5%	8	4,071,399	9.2%
Canada	1	500,000	0.3%	0	0	0.0%
Germany	1	1,332,381	0.9%	1	1,601,368	3.6%
Japan	2	5,001,010	3.4%	4	3,501,911	7.9%
Netherlands	2	8,357,142	5.7%	2	8,867,631	20.0%
Sweden	1	2,880,312	2.0%	1	4,830,193	10.9%
UK	1	18,482,759	12.6%	0	0	0.0%
UN	7	43,116,365	29.5%	10	16,000,183	36.2%
World Bank	2	36,838,254	25.2%	0	0	0.0%
Total	28	146,126,200	100.0%	28	44,238,909	100.0%

(Source: MINECOFIN, 2012, p.33)

Note: The sector classification was adjusted from the DAD by the consultant to match the EDPRS SWG definition.

CHAPTER 7: RESULTS OF ANALYSIS

7.1 Top Priorities in the Basic Education Sector

Research and analysis conducted in the Study of Rwanda identified various problems that the sector faces. For example, despite significant improvement of access to basic education induced by policies set forth by the Government of Rwanda, schools have not been able to supply enough classrooms and teachers to correspond to the increase in enrollment. The analysis also revealed low internal efficiency and problems with the quality of education.

For a better understanding of the challenges faced by primary education in Rwanda, Table 7-1 compares Rwanda to other countries in Sub-Saharan Africa in terms of access (primary NER, secondary GER, and net intake rate (NIR) of primary education), internal efficiency (repetition rate of primary education), learning outcome (completion rate of primary education), teachers (PTR of primary education) and inputs (percentage of education sector expenditure in government expenditure).

Results show that Rwanda ranked first in the primary NER, and ranked 4th for primary education completion rate out of 10 countries. However, primary repetition rate was relatively higher than those countries in comparison. Rwanda's PTR was among the highest ranked 2nd after Malawi.

Table 7-1: Comparison of Education Indices of Rwanda and 10 Countries in Africa (2010)

	Primary NER	Secondary GER	Primary NIR	Primary Repetition rate	Primary Completion rate	Primary PTR	Education sector expenditure (% of government expenditure)
Rwanda*1	98.7	32.2	86.4	13.8	69.6	64.6	18.2
Zambia	91.4	33.4*2	50.6	6.0	103.3	58.0	19.9*2
Kenya	82.8*3	60.2*3	-	-	-	46.8*3	17.2
Ethiopia	81.3	35.7	68.4	3.9	72.2	54.1	25.4
Uganda	90.9	28.1	67.8	10.8	57.2	48.6	15.0*3
Malawi	96.9*3	32.1	80.6	19.0	66.8	79.3	12.1
Senegal	75.5	37.4	57.2*4	6.3	59.2	33.7	24.0*3
Burkina Faso	58.1	20.7	19.4	10.1	45.1	47.8	21.8*4
Mali	62.0	37.7	19.3	12.9	54.8	50.4	22.0
Cameroon	92.4	42.2	58.9*3	13.1	78.7	45.5	17.9
Niger	57.2	13.4	64.4	4.4	41.2	38.6	16.9

(Source: World Bank, World Data Bank, May 28th, 2012)

Notes: *1＝Figures are from the World Data Bank to make a better comparison with other countries.
*2＝For Zambia, the numbers correspond to data from the Education Sector Program (NIF III) as well as statistical data from the MoE, as data regarding secondary education GER and the education sector expenditure to government expenditure ratio could not be obtained from the World Bank website. However, the number under education sector expenditure to government expenditure ratio for Zambia corresponds to education sector budget to general budget ratio.
*3＝ World Bank, 2009.
*4＝ World Bank, 2007.

From Table 7-1, it can be said that Rwanda provides better access to primary education, however, there are major improvements to be made in terms of the pupil teacher ratio and access to secondary education. As Rwanda does not take part in international or regional learning achievement tests, it is not possible to make comparisons with other countries in the region. However, the results of LARS and EGRA & EGMA show that still a large portion of students do not meet some of the learning achievement criteria set out in Rwanda's national curricula.

Table 7-2 compares the educational indices from the present study to the benchmark indices of the FIT Indicative Framework to clarify the challenges faced by the primary education sector in Rwanda.

Table 7-2: Comparison of FTI Indicative Framework Indices

Index	Average of countries showing positive performance in achieving EFA	Rwanda
1. Percentage of the government revenue allocated to the education sector	20%	17.2%*1(2009)
2. Percentage of education sector budget allocated to basic education	42 - 62%	39.4.%*2 (2009/10)
3. Intake Rates	100%	Gross intake rate: 213%*3(2008)
4. Primary education completion rate	100%	69.6%
5. Primary education repetition rate	Less than 10%	13.8% (2010)
6. Pupil teacher ratio in public schools	40: 1	64.6 : 1 (2010)
7. Percentage of non-salaries spending in the recurrent education spending	33%	61%*1 (2009)
8. Annual hours of instruction	850 - 1000 hours	720-900 hours*4

(Source: World Bank, 2004 and The World Bank homepage "World Data Bank", Accessed on May 28th 2012)

Note: *1＝Ministry of Education, 2010a, p.29, p.32.

*2＝Ministry of Education, 2010b, p.49.

*3＝World Bank 2011, p.67.

*4＝Annual teaching hours are calculated to be 900 hours with a single shifting system, and 720 hours with a double shifting system.[29]

7.2 Factor Analysis of Top Priorities

When comparing educational indices of Rwanda and ten neighboring countries (Table 7-1) and the EFA-FTI Educational Framework (Table 7-2), the major problems of Rwanda are that: the pupil teacher ratio in basic education is high, drop-out rates and repetition rates are high, and annual hours of instruction are insufficient. Taking these problems into consideration, overall remaining challenges are described in this section.

[29] "Challenges and best practice in quality education in Rwanda" presented by donors at Mini Joint Review of the Education Sector held on 11 April, 2011.

(1) Issues for Considerations in Implementing Reforms

The education sector in Rwanda has been experiencing series of reforms such as the decentralization processes starting from 2000, the launch of nine year basic education in 2006, the initiation of the Nine Years Basic Education Implementation Fast Track Strategies in 2008, shift of medium instruction from English to French, and eventually the reform to extend basic education to 12 years. Especially, the changes brought about by the shift of medium instruction from English to French and the Nine Years Basic Education Implementation Fast Track Strategies, are posing schools and teachers' to make substantial adjustments on the ground. The majority of teachers are educated in French, and their command of English language is not yet high. English was first used as the medium of instruction starting from P1. However, this arrangement was altered to use Kinyarwanda as the medium of instruction from P1 to P3, in order to ensure adequate level of understanding of the content by the pupils at early grades. Teacher training programmes on English are organized via distance learning courses and other forms of training, however, they are not yet sufficiently provided. With the implementation of 12YBE, increased budgets will be allocated to construction and equipment of schools providing 12-year basic education. While aggressively pursuing new reforms in the education sector, it is important to maintain the quality of education and to carefully manage the period of transition.

(2) The Enrollment Rates have Improved, but the Repetition and Dropout Rates Remain High

Since early 2000s, the enrollment rates have improved steadily. However, the repetition rates and the dropout rates are still relatively high. In order to improve international efficiency, it is important to enhance the quality of education. There is a need to systematically analyze the underlining causes of repetitions and dropouts, and take appropriate policy measures. Some of the reasons for repetition and dropouts pointed out, in general in the African context, are: lack of readiness for primary school education due to weak pre-primary education, socio-economic circumstances of children's families, early marriage and pregnancies of girls, among others. There are also cases when teachers discourage students to be promoted to the next grade in order to make sure that students sit for the national examinations at P6 and pass with good marks. This is due to the fact that schools also are assessed by the marks of national examinations. REB is instructing schools not to continue such a practice (MINEDUC, 2012). In order to ensure quality of education, it is important to strengthen the national system to measure learning achievement. In doing so, considerations should be made not to put undue emphasis on examination marks only. Lessons from LARS and EGRA & EGMA should be taken into account to develop a system of assessing learning achievements, which allows measuring basic and core competencies required in the respective subjects. For instance, in the early stage of learning English, children may take some time to recognize and distinguish each letter in the alphabet. However, as they advance in their studies, they need to develop skills to quickly and easily recognize letters and the sounds they make. The skill of decoding unfamiliar words is most critical to becoming an independent reader, and students need to be able to recognize individual letter sounds to decode unfamiliar words (RTI International, 2012). This type of core

competencies should be adequately tested in the learning achievements assessments. In the effort of ensuring the quality of education, multiple resources should be utilized. Now with more extensive support provided by SEOs in the context of decentralization, schools may take advantage of various sources of external assistance.

(3) The Burden on Teachers is Increasingly High, which may Cause Deterioration of Quality in Teaching

The pupil to teacher ratio is high. This causes less contact time by teachers with the pupils. With the introduction of double-shifting, the average teaching hours for teachers are at 6.5 hours / day. While the teaching hours are increasing, the rate of salary rise is very little. Especially, in remote rural areas, the number of teachers is relatively low. This even makes the workload per teacher heavier. In primary education, due to the introduction of subject specialization instead of class based teaching, teachers may know less about each pupil, which could increase disciplinary problems and adversely affect learning outcomes (WB, 2011). In order to address the issue of shortage of teachers, measures are taken to enhance TTC programmes, expand the distance-learning programmes in Provinces, and improve English mentoring system, etc. The low level of teacher's salary is also a demotivating factor for teachers (MINEDUC, 2006). This could have a negative impact on the quality of teaching, which could also lead to the deterioration of quality of education.

(4) The Issue of Equity in terms of Access to Education

As mentioned in the previous sections on equity, improvements are made in addressing gender disparities. For instance, under MDGs, the ratio of girls to boys in primary education is above 1. However, girls' learning achievements are relatively lower than those of boys in the grades of the national examinations at P3 and P6. The dropout rates are also higher for girls. On the issue of equity, the regional and income disparities should deserve policy attentions and measures. The number of pupils per class is much higher in Provinces than in Kigali City. The access to education is relatively lower in the Southern Province and the border Districts. After the basic education has become free, a survey shows that the level of financial contributions made by the parents to schools remain almost at the same level (WB, 2011). Those financial contributions may be a burden for the poor, orphans and vulnerable children, and people living with HIV/AIDS, etc., preventing them from full access to education. In communities, there are voluntary financial initiatives to assist those families and pupils in need. It may also help for the Government to consider providing additional financial support specifically targeting those vulnerable children.

7.3 Priorities of Rwanda's Education Policy

In order to address the priority issues mentioned in the previous section 7.2, the Education Sector Strategic Plan, ESSP 2010-2015, outlines important strategic Priorities for 2010-2015. Those seven priorities are listed below, and based on the desk review and interviews carried out

in Rwanda in April, 2012, the most critical issues observed by this study for policy attention are underlined (1,3,5,8). By addressing Priority 1,3,5,7, it is likely to have positive impacts on improving internal efficiency, upgrading teachers' skills, capacities and motivations, promoting equality, and improving the outcome of school management.

1. Improving completion and transition rates whilst reducing drop-out and repetition in basic education,
2. Ensuring that educational quality continues to improve,
3. Developing a skilled and motivated teaching, training and lecturing workforce,
4. Ensuring that the post-basic education (PBE) system is better tailored to meet labour market needs,
5. Ensuring equity within all fields and throughout all levels of education and training,
6. Strengthening education in science and technology,
7. Strengthening the institutional framework and management capacity for effective delivery of education services at all levels.

However, as mentioned in the previous section of this study, the financial gaps are large to fully implement the goals of ESSP2010-2015. There is no indication or policy measures of how to fill those financial gaps. The challenges are huge, for instance, in terms of how to finance the salaries of increasing number of teachers. There are also improvements to be made on the issue of equality. The disparities in access to education by region and by income still remain as a challenge. It has been already 5 years since the approval of the Special Needs Education Policy, however, the progress made in this area is still very slow.

There is no concrete plan yet how to gradually phase out the double shifting system. In this context, in order improve the quality of education within the on-going double shifting system, it may be worthwhile to study good practices and lessons of teaching methodologies and the use of teaching material including textbooks by high performing schools such as Schools of Excellence to replicate useful lessons despite differences in various resources allocated to each school. School management is an important area to be supported, and continuous assistance is provided by development partners such as VVOB. These efforts are essential in utilizing limited amount of resources to maximize the impact of improved school operation, monitoring and management. As mentioned in this report, the communities played a major role in ensuring 9YBE implementation by assisting school constructions, etc. The contributions by the communities including PTA in school management and improving quality of education may prove effective, and efforts should be made to continue building mechanisms to ensure such inputs from the communities.

7.4 Challenges and Necessary Considerations

The study has given rise to some points of considerations and has identified some of the challenges in conducting a sectoral study in the education sector. Sectoral analysis carried out

for Zambia, prior to the one for Rwanda, identified the following issues to note: 1) it is difficult to obtain the precise school age population, 2) some statistical data is inaccurate, 3) it is not always appropriate to generalize the information obtained from interviews 4) the amount of information varies according to specific topics and indicators. The Rwanda study also faced similar challenges. The following is the additional observations from the study conducted for Rwanda.

(1) Analysis of Causal Relationships of Key Performance Indicators

In addition to the difficulty in obtaining accurate statistical information such as school age population, etc, there was a challenge in searching existing analysis on the relation of cause and effect of key policy achievements in the education sector. During the interviews with policy-makers in the education in Rwanda in April, 2012, there was a challenge in obtaining views on underlining causes for improved school enrollments, the reasons for persistently high drop-out rates, etc. The research and analytical capacity of MINEDUC is still to be further strengthened. In order to carry out comprehensive sectoral analysis in the education sector, the first step is to gather and analyze existing previous studies. As a next step, to generate new analysis and extract lessons, a fair amount of resources both in terms of human and financial resources, as well as time have to be allocated.

(2) Responding to the Country Specific and Unique Aspects within the Country Study

In addition to the standard issues to be examined in the education sectoral study designed by JICA, it may be beneficial to include specific aspects and priorities, which are unique to each country. For instance, in Rwanda, ICT is given a high priority as a sector as well as its role in the education sector. The education sector is also to cater for fostering human capital, which is capable of contributing to the development of ICT for the development of Rwanda. Such a critical issue may deserve further analysis in the study.

(3) The Implication of Conflict and Peacebuilding

A number of African countries after their independence have experienced civil wars including Rwanda. The impact and legacy of the civil war in Rwanda is still felt strongly in the society. This aspect should be taken into account in all the areas of social development processes including the support to the education sector. In general, conflicts leave the country with social tensions, a huge number of refugees and displaced persons, numerous orphans and vulnerable children, a high prevalence rate of HIV/AIDS, etc. The role that education should play in promoting peace and reconciliation is also paramount. It may be useful to add the aspect of conflict and peacebuilding to the standard issues to be included in the education sectoral study designed by JICA, for those countries affected by conflicts.

(4) The Need to Analyze the Data below Sub-national Level for the Study

This study primarily presented data and statistics at the sub-national level (Provinces). However,

among different Provinces, contrasts were distinct between Kigali City and other Provinces, and not so much among the four Provinces excluding Kigali City. Considering the fact that District Mayors have direct reporting responsibilities to the President of Rwanda through quarterly management meetings and the need to obtain data which presents regional variances for concrete policy actions, it may be necessary to collect data and carry out analysis at least at the District level.

(5) The Importance of Cross-sectoral Perspective and Analysis

In order to carry out sector analysis of the education sector, it is important to have a cross-sectoral perspective and to analyze the linkages between the education sector and other sectors to examine priorities. Especially, the analysis should be made analyzing the relations between the education sector and economic policies, financial planning and budgeting processes. Due to the lack of previous studies conducted in these aspects and the limited working days for this sectoral study made it difficult to have a thorough review and conduct interviews with relevant stakeholders.

ANNEX

I. Survey Items and Indicators

1-1 Standard Research Items and Indicators for the Basic Education Sector Analysis

Main Grouping		Sub Grouping		Items and Indicators
1	Population projection	1-1	Current situation and projection	Current situation of school age population Projection of school age population Regional distribution of population density
2	Educational development trend	2-1	Trend of improvement policy on education sector	Education system National development policy Education development policy Education sector program Education act/law
3	Donor assistance	3-1	Trend of donor assistance Extent of adopting the global aid framework	Amount and contents of assistance and aid modality Donor coordination Adoption of the aid framework
4	Access	4-1	Enrollment trend Projection of enrollment rate	Net enrollment rate (Primary/Secondary) Gross enrollment rate（Primary/Secondary） Net intake rate（Primary/Secondary） Gross intake rate（Primary/Secondary）
5	Literacy, non-formal education	5-1	Literacy rate	Adult literacy rate
6	Internal efficiency	6-1	Quantitative internal efficiency	Promotion rate by grade Repetition rate by grade Dropout rate by grade Transition rate Cohort survival rate Schooling years per graduate Total number of pupils form whom educational investment resulted in waste.
7	Equity	7-1	Comparative analysis of access by group	Repetition Rate by Group Survival Rate by Group Promotion Rate by Group Transition Rate by Group Gender Parity Index
		7-2	Special education for pupils with special needs and inclusive education	Education policy and current situation of special education
8	Quality	8-1	Situation of learning outcome	Completion rate Performance of the national examination Performance of international student ability assessment such as PISA, SACMEQ etc.
		8-2	Analysis of learning environment	Pupils per class by region Pupils per class by group Number of schools introducing shift system Teaching hours
		8-3	Procurement and distribution system of teaching material	Analysis on procurement system of teaching material Efficiency of distribution system of teaching material
		8-4	Definition of academic ability	Definition of academic ability to achieve
		8-5	Quality assurance system of education	Existence of national pupil/student ability standards Contents of national pupil/student ability standards Pupil/student ability assessment system How to put the results of pupil/student ability assessment open to the public

Main Grouping		Sub Grouping		Items and Indicators
				School inspector system
		8-6	Curriculum	Capacity of curriculum development agency
				Curriculum updating
		8-7	Medium of instruction	Medium of instruction (languages)
9	Teachers	9-1	Teacher qualification and placement	Number of Pupils Per Teacher (Regional distribution)
				Number of Pupils Per Teacher by Type (Regional distribution)
		9-2	Analysis on teacher education system	Teacher training System (pre-service and in-service)
				Appropriateness of teacher training curriculum
				Appropriateness of proportion of material knowledge, pedagogy, and educational psychology
		9-3	Analysis on teacher salary	Level of teacher salary
		9-4	Analysis on teacher recruiting and management	Teacher recruiting and removing agency
				Regulations of recruiting and removing teachers
10	Educational administration system	10-1	Analysis of structure and function of devolution	Situation of devolution among education administration
				Capacity of each level
				Mechanism of devolution and financial distribution
				Situation of devolution process
		10-2	Management of Ministry of Education (MoE)	Management capacity of MoE
11	Analysis of educational finance	11-1	Percentage of education sector in the total government budget and expenditure	Percentage of government education budget and expenditure of education sector comparing to GDP
				Percentage of government education expenditure in total government expenditure
		11-2	Percentage of education sub-sectors in the government education budget and expenditure	Percentage of education sub-sectors in the government education budget and expenditure
		11-3	Percentage of education sector in the total government working budget	Percentage of education sector in the government working budget and expenditure
		11-4	Analysis of recurrent budget and expenditure	Percentage of teacher salary in the education recurrent budget
		11-5	Percentage of donor assistance in MoE budget	Percentage of donor assistance in MoE budget
		11-6	Analysis on flow and management of donor's fund	Flow of donor's fund
				Management system
		11-7	Analysis of private spending on education	Percentage of spending of beneficiaries and households in education expenditure
		11-8	Analysis on unit cost	Government education expenditure per pupil/student by each education stage
		11-9	Mid-term needs projection of teachers and expenses	Number of teachers to be needed in the mid-term period
				Projection of expenditure needed in the mid-term period
		11-10	Analysis of management system of education budget and government expenditure	Mechanism of public finance management system in education sector
				Appropriateness of the existing mechanism
12	Public-private partnerships	12-1	Situation of public-private partnership (PPP)	Comparison of enrollments by school type
				Factor analysis on which groups go to which school types

(Source: JICA "Standard Research Item and Methodology of the Education Sector Analysis" (Draft as of October 2011)

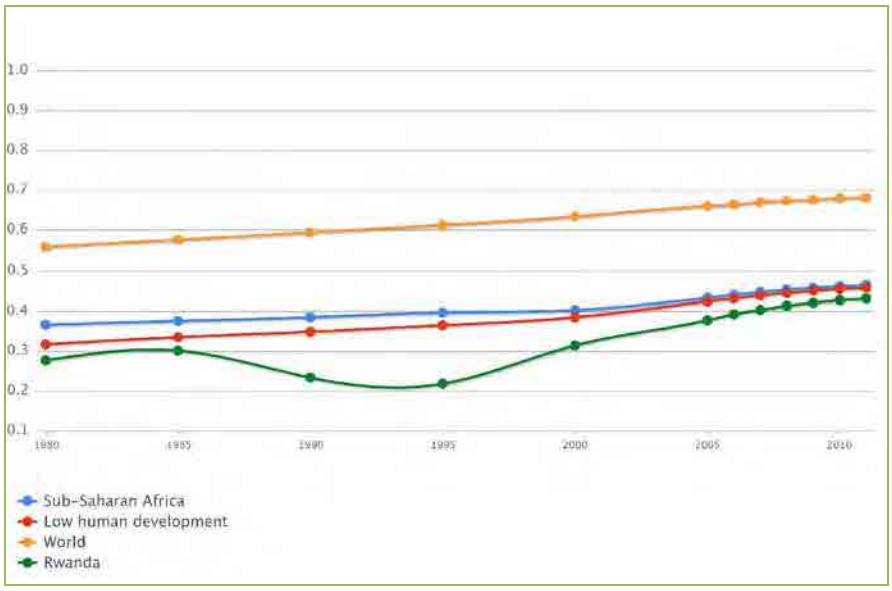
II. Itinerary of the Field Survey

No.	Date	Day	Agenda items
1	23-Mar-12	（Fri）	Narita-Kigali (flight) ： Dept Narita(21:20) - Arrival Doha (+1day, 5:50) QR 803/D
2	24-Mar-12	（Sat）	： Narita (-1day, 21:20) - Doha (5:50) QR 803/D ： Doha (7:30) - Nairobi (12:50) QR 532/D ： Nairobi (15:30) - Kigali(17:40) KQ 444/Z
3	25-Mar-12	（Sun）	Reviewing documents and revising questionnaires.
4	26-Mar-12	（Mon）	9:30 - Meeting, JICA Representative (Mr. Hiroyuki Kobayashi) 10:30 - Meeting, JICA Officer (Mr. Atsushi Tsujimoto) 14:00 - Secondary school visit (G.S.S Aloys in Rwamagana District)
5	27-Mar-12	（Tue）	10:00 - 9YB school visit (G.S. Ruyanza in Kamonyi District) 15:00 - MINEDUC Director of Planning (Mr. Mico Niyomana) 16:30 - REB/TDM (Mr. Jules Simon Musabe)
6	28-Mar-12	（Wed）	Making appointments, reading, writing up meeting memos.
7	29-Mar-12	（Thu）	Making appointments, reading, writing up meeting memos.
8	30-Mar-12	（Fri）	14:00 - Meeting, UNICEF (Education Office, Mr. Hugh Delaney) 16:00 - Meeting, KIE Faculty of Science (Dr Jean de Dieu Baziruwiha)
9	31-Mar-12	（Sat）	13:00 - Meeting, REB/TDM DDG (Mr. Damian Ntaganzwa)
10	1-Apr-12	（Sun）	Reviewing documents.
11	2-Apr-12	（Mon）	15:00 - Meeting, MINEDUC acting DG 16:00 - Meeting, KIE Distance Learning (Mr. Jean François Munyakayanza)
12	3-Apr-12	（Tue）	8:00 - 18:00 - Joint Review of Education Sector (JRES) Meeting
13	4-Apr-12	（Wed）	8:00 - Meeting, REB Exams DDG (Mr. Emmanuel Muvunyi) 9:00 - Meeting, REB/Curriculum DDG (Dr Joyce Musabe) 11:00 - Debriefing JICA Representative (Mr. Hiroyuki Kobayashi) 13:00 - Meeting, MINECOFIN EFU (Mr. Jean Bosco Ndaruhutse) 14:00 - Meeting, DFID (Ms Gemma Wilson-Clark) 16:00 - Meeting, REB/Education Quality Standards DDG (Mr. Janvier Gasana)
14	5-Apr-12	（Thu）	8:00 - Meeting, NIRS Director (Ms Apolline Mukanyonga) 10:00 - Meeting, MINEDUC statistician (Ms Benita Nyampundu)
			Afternoon Kigali－Narita ： Dept Kigali (13:55) - Arrival Nairobi (16:25) KQ 442/Z ： Dept Nairobi (18:00) - Arrival Doha (23:05)QR 533/D
15	6-Apr-12	（Fri）	： Dept Doha (1:25) - Arrival Narita (19:50) QR 802/D

III. Collected Data

Chapter 3

3-1 Rwanda Human Development Index (HDI) (1980～2010)



(Source: UNDP, 2012)

3-2 Educational System: Levels and Qualifications

	Educational level	General Primary and Secondary	TVET	Teacher Education	General Higher Education
Post-Basic Education	Postgraduate			Postgraduate certificate qualifying to teach in higher education	Postgraduate (Masters and above)
	A0			Degree with Qualified Teacher Status (QTS) for upper secondary	Degree
	A1		College of Technology diploma	Diploma with QTS for lower secondary	
Basic Education	A2 (3 Years)	A Level certificate (S4-S6)	TVET Grade 2; A2	Certificate qualifying to teach in primary	
	Lower secondary (3 years: S1-S3)	O Level Certificate (S1-S3)	TVET Grade 3		
	Primary (6 years: P1-P6)	Primary Leaving Certificate			
	Pre-primary (PS1-PS3)				

(Source: MINEDUC, 2010, p.13)

3-3 Education Sector Strategic Plan, ESSP 2010-2015 Performance Indicator

Key Performance Indicator	2009 baseline	2015 target
1. Equitable improved completion and transition and reduced drop-out and repetition in basic education		
a) Primary school completion rate (CPAF indicators)	71.3%	95%
b) 9YBE completion rate	P: 74.5% (LS): 91.9%	P: 88% (LS): 96%
c) Transition from basic education to upper secondary education (CPAF indicator)	86.0%	95%
d) Adult literacy rate	63.0%	90%
2. Equitable improved educational quality and learning achievement		
a) % of students passing National S3 exam	80.9%	90%
b) % of students passing National S6 exam	88.6%	95%
3. A sufficient number of skilled and motivated teachers, trainers and lecturers		
a) Primary school pupil to qualified teacher ratio (CPAF indicator)	57.2	40
b) % of TVET trainers who are qualified	69.1	100%
4. Equitable post-basic education system tailored to meet labour market needs		
a) Proportion of employers who are satisfied with the performance of TVET graduates (CPAF indicator)	19.47%	25
5. Improved HIV/AIDS prevention at all levels of education and training		
a) Key HIV and AIDS messages integrated across BE and PBE curricula	19.47%	100%
6. Strengthened performance in and application of science and technology		
a) Percentage of primary and secondary schools with internet connectivity	Primary 3.7% Secondary 24.5%	Primary 40% Secondary 50%
b) Percentage of schools with required science facilities		60%
c) Percentage of students in science streams taking S6 national exams who pass with a minimum for public university entrance to study a science discipline	General: F9%/M19% Technical/vocational: F1%/M3%	General: F20%,/M32% Technical/vocational: F9%/M12%
7. Strengthened institutional framework and management capacity for effective delivery of education services at all levels		
a) Percentage of schools complying with financial procedures for use of capitation grants	65%	90%

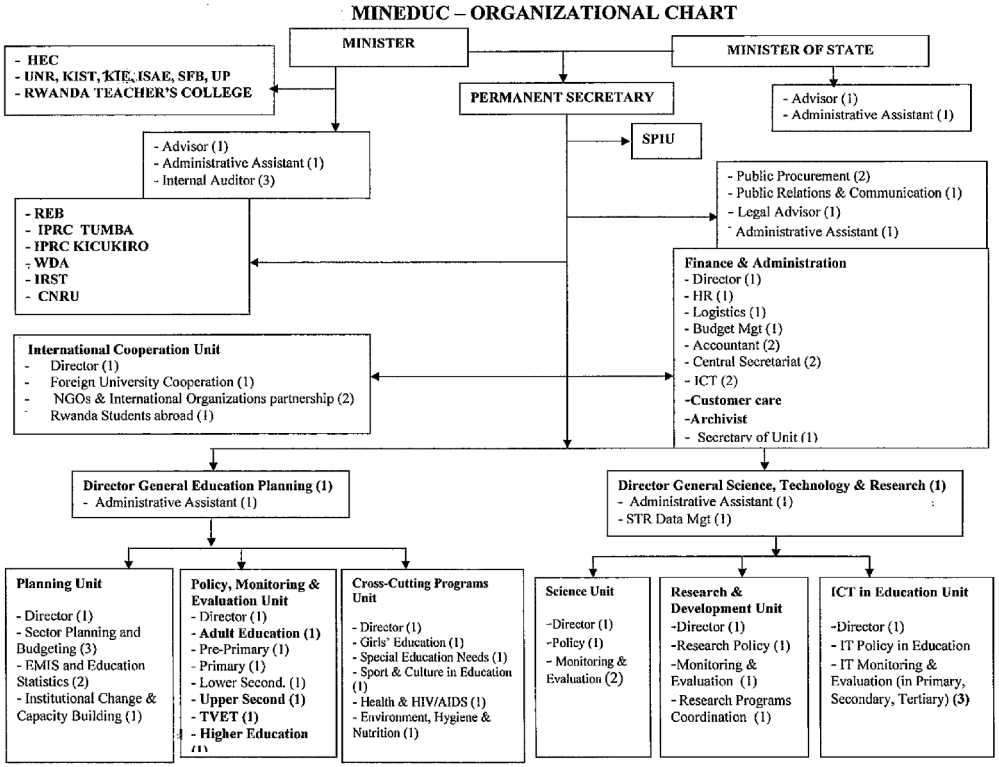
(Source: MINEDUC, 2010, p.56)

3-4 Progress MDGs Achievement in Rwanda (Goals 1 to 3)

Goal	Target	Indicators	Data 2008	Target Value 2015	Current Status of Achievements
Goal 1 : Eradicate extreme poverty and hunger	Target 1.A : Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day	Proportion of population below $1 (PPP) per day	56.9%	23.8%	Off track
	Target 1.C : Halve, between 1990 and 2015, the proportion of people who suffer from hunger.	Prevalence of underweight children under-five years of age	15.8%	14.5%	Off track
Goal 2 : Achieve Universal Primary Education	Target 2.A : Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	Net enrollment rate in primary education	94.2%	100%	On track
		Proportion of pupils starting grade 1 who reach last grade of primary	74.5%	100%	On track
		Literacy rate of 15-24 year-olds, women and men	76.8%	100%	On track
Goal 3 : Promote Gender Equality and Empower Women	Target 3.A : Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	Ratios of girls to boys in primary education	103		On track
		Ratios of girls to boys in secondary education	0.9		On track
		Ratios of girls to boys in tertiary education	-	-	
		Ratios of girls to boys in literacy rate of 15-24 year-olds	-	-	
		Share of women in wage employment in the non-agricultural sector	28.4	50	Off track
		Proportion of seats held by women in national parliament	52	50	On track

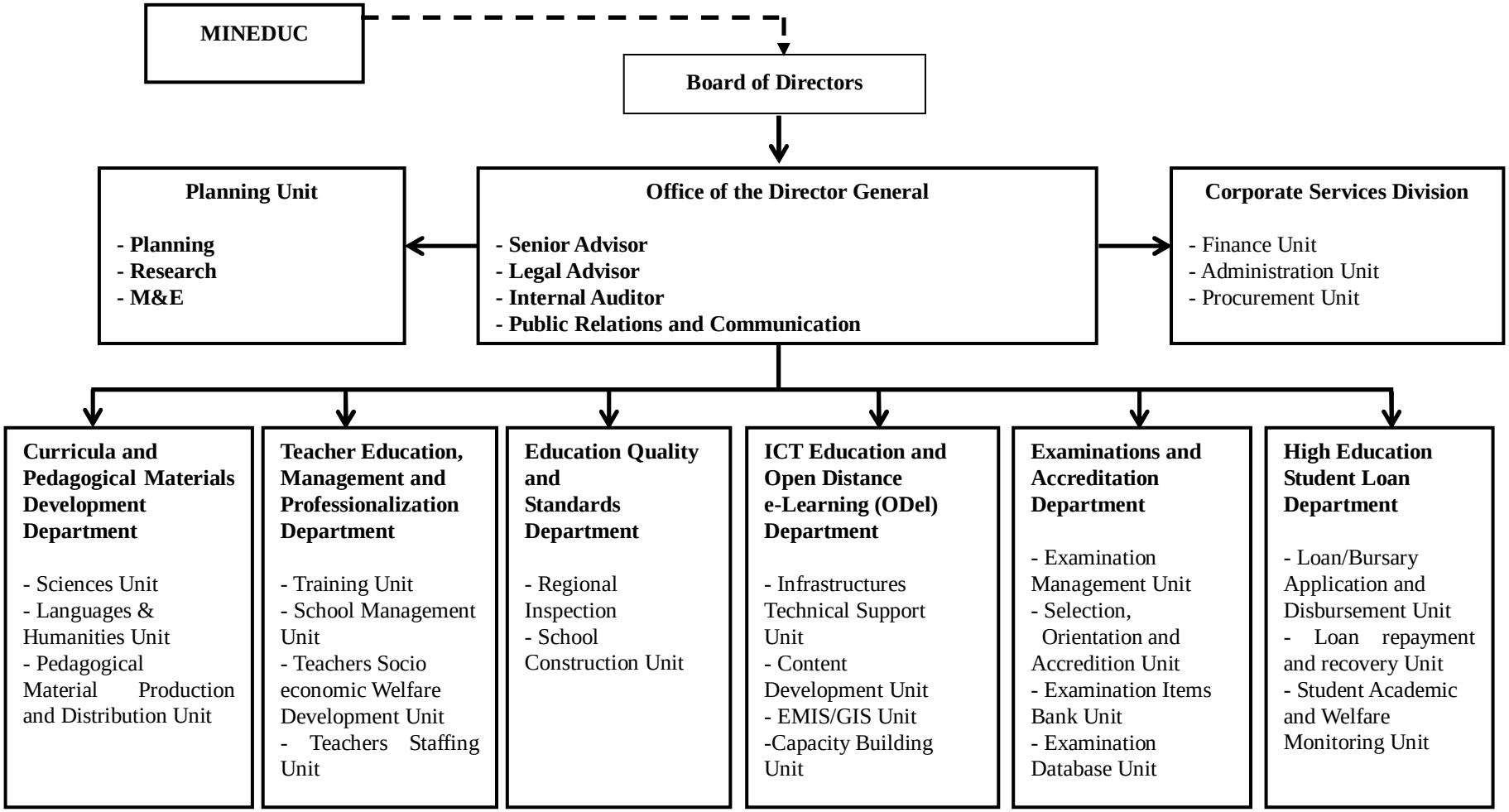
(Source: Abbott and Rwirahira for UNDP, 2010)

3-5 MINEDUC – Organizational Chart



(Source: Obtained from the MINEDUC in April, 2012)

3-6 Organizational Chart of Rwanda Education Board



(Source: Developed by the study team in reference to Ministry of Education's organizational chart)

Chapter 4

4-1 Distribution of Population by Urban/Rural and Province (%) (2005/6 & 2010/11)

Province	EICV3 (2010/11)			EICV2 (2005/6)		
	Area of residence		Total population (in 000s)	Area of residence		Total population (in 000s)
	Urban (%)	Rural (%)		Urban (%)	Rural (%)	
Kigali City	83.8	16.2	1,059	16.6	83.4	913
Southern	12.6	87.4	2,527	14.3	85.7	2,287
Western	6.7	93.3	2,586	7.4	92.6	1,751
Northern	6.1	93.9	1,981	9.8	90.2	2,120
Eastern	3.6	96.4	2,609	5.2	94.8	2,120
All Rwanda	14.8	85.2	10,762	16.6	83.4	9,491

(Source: NISR, 2011, p.29)

4-2 Distribution of Population by School Age Groups (5～9) and Sex (%) (2005/6 & 2010/11)

Age in 5-year groups	EICV3(2010/11)			EICV2 (2005/6)		
	Sex		Total population (in 000s)	Sex		Total population (in 000s)
	Male	Female		Male	Female	
5～9	7.3	7.3	1,572	6.8	7.2	1,331
10～14	6.4	6.6	1,404	6.4	6.5	1,232
15～19	5.5	5.7	1,250	6.1	6.6	1,203
5～19	19.2	19.6	4,181	19.3	20.3	3,766
All Rwanda	47.4	52.6	10,762	47.4	52.6	9,491

(Source: NISR, 2011, p.30)

4-3 Population Density by Province (2010/11) (Population/km²)

Province	Total population (in 000s)	Area (km²)	Population density (/km²)
Kigali City	1,059	720	1,471
Southern	2,527	5,987	422
Western	2,586	5,689	455
Northern	1,981	3,700	535
Eastern	2,609	9,220	283
All Rwanda	**10,762**	**25,314**	**425**

(Source: NISR, 2011)

4-4 Number of Students in Primary Education from 2005 to 2011 (School Age of Primary Education:7 to 12)

	2005	2006	2007	2008	2009	2010	2011
Number of Boys	912,207	984,272	1,058,026	1,076,159	1,114,253	1,132,556	1,150,205
Number of Girls	945,634	1,035,719	1,092,404	1,114,111	1,150,419	1,166,770	1,190,941
% of Boys	49.1%	48.7%	49.2%	49.1%	49.2%	49.3%	49.1%
% of Girls	50.9%	51.3%	50.8%	50.9%	50.8%	50.7%	50.9%
Total number of Students	1,857,841	2,019,991	2,150,430	2,190,270	2,264,672	2,299,326	2,341,146

(Source: MINEDUC, 2011 & 2012)

4-5 Number of Primary Students by Grade in 2010 and 2011

	2010	2011
P1	642,825	662,358
P2	461,909	474,180
P3	385,812	381,274
P4	340,183	346,229
P5	283,757	304,556
P6	184,840	172,549
Total	2,299,326	2,341,146

(Source: MINEDUC, 2011 & 2012)

4-6 Number of Students in Primary and Secondary Education by Province

Province	P1-P6			S1-S3			S4-S6		
	Boy	Girl	Total	Boy	Girl	Total	Boy	Girl	Total
Southern	288,744	294,467	583,211	41,993	49,010	91,003	19,920	20,400	40,320
Western	296,832	309,423	606,255	42,575	45,001	87,576	16,952	15,999	32,951
Eastern	272,867	283,892	556,759	36,731	38,315	75,046	13,677	12,746	26,423
Northern	209,725	221,713	431,438	28,628	33,965	62,593	10,932	10,571	21,503
Kigali City	82,037	81,446	163,483	12,393	13,131	25,524	11,949	11,549	23,498
All Rwanda	1,150,205	1,190,941	2,341,146	162,320	179,422	341,742	73,430	71,265	144,695

(Source: MINEDUC, 2010)

4-7 Trend of GER by Sex in Primary Education (2005-2011)

		2005	2006	2007	2008	2009	2010	2011
P1-6	Boy	136.7%	143.4%	151.3%	127.3%	127.4%	125.2%	125.7%
	Girl	137.8%	147.2%	152.5%	128.5%	129.5%	127.6%	128.9%
	Total	137.3%	145.3%	151.9%	127.9%	128.5%	126.5%	127.3%

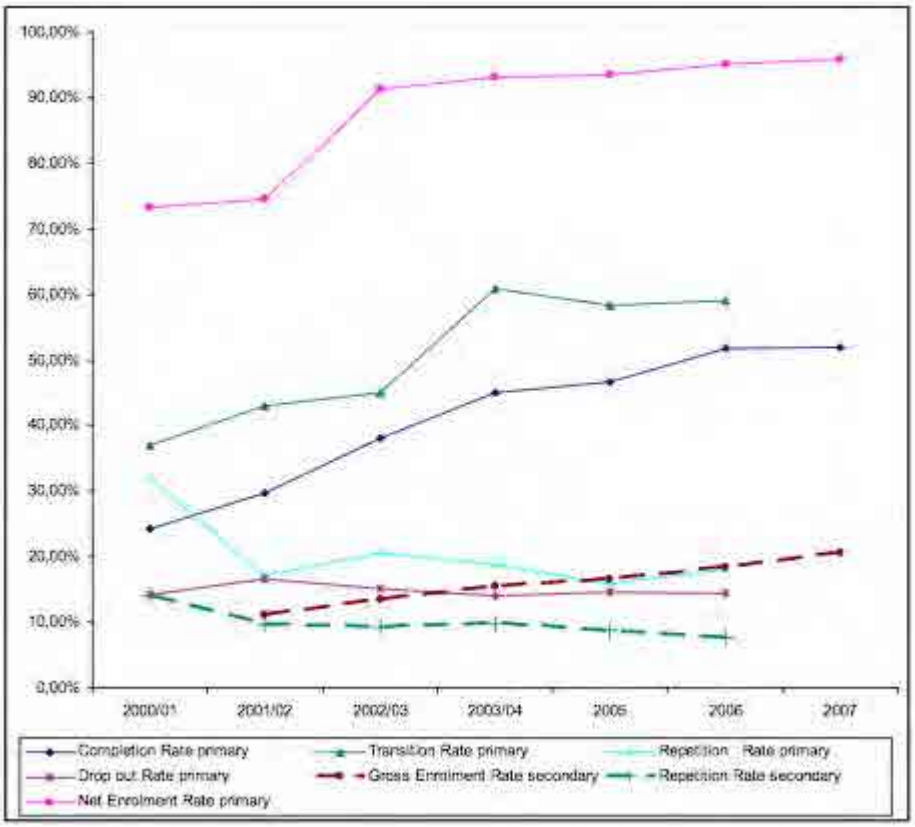
(Source: MINEDUC, 2011 & 2012)

4-8 Trend of GER by Sex in Secondary Education (2005-2011)

		2005	2006	2007	2008	2009	2010	2011
S1-6	Boy	17.9%	19.7%	21.9%	22.0%	26.8%	31.5%	34.9%
	Girl	15.4%	17.1%	19.1%	23.4%	25.0%	31.5%	36.2%
	Total	16.6%	18.4%	20.5%	20.7%	25.9%	31.5%	35.5%

(Source: MINEDUC, 2010 & 2011)

4-9 Evolution of Service Delivery Inputs, Outputs and Outcomes over Time (2000-2007)



(Source: ODI & Mokoro, 2009, p.79)

4-10 Evolution of Service Delivery Inputs, Outputs and Outcomes (2000-2007)

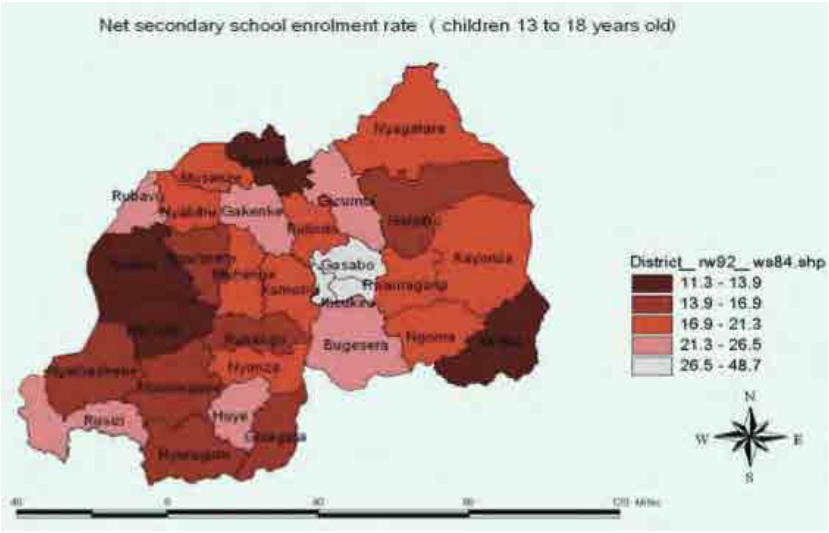
ENSEIGNEMENT PRIMAIRE / PRIMARY EDUCATION							
	2000/01	2001/02	2002/03	2003/04	2005	2006	2007
STUDENTS							
Number of Students	1,476,272	1,534,510	1,636,563	1,752,583	1,857,841	2,019,991	2,150,430
% of Girls	50.0%	50.3%	50.5%	50.8%	50.9%	51.3%	50.8%
Gross Enrolment Rate	**99.9%**	**103.7%**	**128.4%**	**130.8%**	**137.3%**	**145.3%**	**151.9%**
GER Boys	101.9%	105.8%	129.0%	130.6%	136.7%	143.4%	151.3%
GER Girls	98.2%	102.3%	127.8%	131.0%	137.8%	147.2%	152.5%
Net Enrolment Rate	**73.3%**	**74.5%**	**91.2%**	**93.0%**	**93.5%**	**95.0%**	**95.8%**
NER Boys	72.9%	74.0%	90.1%	91.5%	92.2%	92.9%	94.7%
NER Girls	74.9%	74.9%	92.4%	94.5%	94.7%	97.0%	96.8%
Completion Rate	24.2%	29.6%	38.1%	44.9%	46.7%	51.7%	52.0%
Transition Rate	37.0%	43.0%	45.0%	60.8%	58.3%	59%	
Transition Rate Boys					61.8%	62.0%	
Transition Rate Girls					54.8%	55.3%	
Repetition Rate	31.8%	17.2%	20.6%	18.8%	15.8%	18.1%	
Drop out Rate	14.2%	16.6%	15.2%	14.0%	14.6%	14.3%	
TEACHERS							
Head and teachers	**26,698**	**26,024**	**27,319**	**28,254**	**29,033**	**30,637**	**31,037**
Number teachers only			25,360	26,192	26,944	28,474	29,059
% of Qualified Teacher	62.7%	81.2%	85.2%	88.2%	93.7%	97.6%	98.1%
Teacher Student Ratio	51	58.9	64.5	66.9	69.0	70.9	74.0
Qualified Teacher Student Ratio	82	72.6	70.3	75.8	73.6	72.7	75.4
Schools							
Schools	2,142	2,172	2,203	2,262	2,295	2,323	2,370
Classroom	27,339	27,735	28,806	29,385	29,748	30,434	30,737
Number of streams	39,045	33,771	33,259	34,421	36,175	36,619	39,543

ENSEIGNEMENT SECONDAIRE / SECONDARY EDUCATION							
	2000/01	2001/02	2002/03	2003/04	2005	2006	2007
STUDENTS							
Gross Enrolment Rate		11.2%	13.4%	15.4%	16.6%	18.4%	20.5%
Net Enrolment Rate		6.5%	10.2%	10.6%	9.0%	10.1%	13.1%
Repetition	14.0%	9.6%	9.2%	9.8%	8.7%	7.7%	
TEACHERS							
Total public+private	5,453	6,329	7,058	7,750	7,610	7,818	12,103
Teachers (public)	2,974	3,319	3,697	4,104	4,340	4,385	7,032
Teachers (private)	2,479	3,010	3,361	3,646	3,270	3,433	5,071
% of Qualified Teachers	49.7%	51.9%	52.1%	51.0%	51.8%	52.2%	53.4%
Teacher Student Ratio (public)	26.8	26.7	26.1	27.7	29.6	32.0	22.2
Teacher Student Ratio (private)	24.8	22.8	24.9	24.6	27.6	28.9	21.7
Qualified Teacher student Ratio	52.1	47.8	49	51.5	55.5	58.7	41.3
Schools/ Classrooms							
Total public+private	376	393	405	504	553	579	643
Public schools	186	185	190	266	337	356	405
Private Schools	190	208	215	218	216	223	238

Source: MINEDUC, 2008 report to donors

(Source: ODI & Mokoro, 2009, p.80)

4-11 Net Secondary Enrolment Rate (Children 13 to 18 years old) (%)



(Source: NISR, 2011, p.49)

4-12 Subjects for Primary and Lower Secondary Education

Subjects	Primary		Lower secondary (O'Level)
Core subjects (all compulsory & examinable)	P1～P3	P3～P6	S1～S3
Kinyarwanda	○	○	○
English	○	○	○
Mathemathics	○	○	○
Social studies	○	○	
Sciences and elementary technology		○	
Sciences (Physics, Chemistry, Biology)			○
Computer science			○
History			○
Geography			○
Entrepreneurship			○
Co-curricular activities (compulsory & non-examinable)			
Sport	○	○	○
Religious study	○	○	○
Music	○	○	
Fine art	○	○	
Cultural activities	○	○	○
Practical work	○	○	
Clubs	○	○	○
Practical Science			○
Creative performance (Music, Drama and Fine Arts)			○
Elective non-examinable (Schools can choose one)			
French			○
Swahili			○
Agriculture			○

(Developed by the author based on REB curricula.)

4-13 Ordinary (Lower) Secondary Performance by Subject (2005～2010)

	Candidates who sat for exams			Students who passed			Selected to S4			% of student passed		
Year	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
2005	16,786	18,344	35,130	4,193	8,755	12,948	4,193	8,755	12,948	25.0%	47.7%	36.9%
2006	21,022	23,846	44,868	4,348	9,183	13,531	4,348	9,183	13,531	20.7%	38.5%	30.2%
2007	22,264	24,461	46,725	4,145	9,197	13,342	4,145	9,197	13,342	18.6%	37.6%	28.6%
2008	23,486	25,396	48,882	16,551	21,990	38,541	6,878	8,609	15,487	70.5%	78.6%	74.2%
2009	25,065	26,730	51,795	18,492	23,402	41,894	10,255	10,692	20,947	73.8%	87.5%	80.9%
2010	29,783	29,411	59,194	23,296	26,933	50,229	12,270	13,762	26,032	78.2%	91.6%	84.9%

(Source：MINEDUC, 2011)

4-14 Advanced (Upper) Secondary Performance (2005～2010)

	Candidates who sat for exams			Students who passed			Selected to public universities			% of passed student		
Year	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
2005	13,686	14,468	28,154	7,473	10,741	18,214	819	2,161	2,980	54.6%	74.2%	64.7%
2006	16,983	17,519	34,502	11,723	14,161	25,884	1,040	2,908	3,948	69.0%	80.8%	75.0%
2007	16,890	18,765	35,655	10,812	14,422	25,234	1,891	4,615	6,506	64.0%	76.9%	70.8%
2008	18,574	20,286	38,860	15,955	18,624	34,579	2,335	5,373	7,708	85.9%	91.8%	89.0%
2009	19,541	23,004	42,545	16,785	21,056	37,841	1,550	3,640	5,190	85.9%	91.5%	88.9%
2010	22,807	26,288	49,095	19,103	23,808	42,911	1,865	4,801	6,666	83.8%	90.6%	87.4%

(Source: MINEDUC, 2011)

4-15 Number and Percentage of Qualified Teachers in Primary Education (2005～2011)

	2005	2006	2007	2008	2009	2010	2011
Qualified Teachers	25,255	27,795	30,447	32,461	34,238	35,807	39,665
Qualified Teachers (%)	93.7%	97.6%	98.1%	91.0%	96.0%	98.5%	98.6%
Male	11,534	12,640	14,102	14,956	16,049	16,367	19,033
Female	13,721	15,155	16,345	17,505	18,189	19,440	20,632
Male (%)	93.5%	98.5%	97.6%	89.5%	95.7%	97.2%	97.5%
Female (%)	93.9%	96.9%	98.5%	92.3%	96.3%	99.6%	99.3%

(Source: MINEDUC, 2011 & 2012)

4-16 Number and Percentage of Qualified Teachers in Secondary Education (2005～2011)

	2005	2006	2007	2008	2009	2010	2011
Qualified Teachers	3,940	4,082	6,458	5,849	8,710	8,681	13,206
Qualified Teachers (%)	51.8%	52.2%	53.4%	57.4%	60.4%	60.0%	64.4%
Male	3,417	3,310	5,331	4,593	6,786	6,226	10,000
Female	523	772	1,127	1,256	1,924	2,455	3,206
Male (%)	57.1%	55.1%	59.1%	59.7%	65.7%	58.7%	67.5%
Female (%)	32.2%	42.7%	36.5%	50.3%	46.9%	63.3%	56.2%

(Source: MINEDUC, 2011 & 2012)

4-17 Primary Students Performance from 2005 to 2010

	Candidates who sat for exams			Passed			Selected to S1			% of passed student (%)		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
2005	54,558	52,431	106,989	10,899	17,003	27,902	10,899	17,003	27,902	20.0%	32.4%	26.1%
2006	61,809	57,899	119,708	9,020	14,796	23,816	9,020	14,796	23,816	14.6%	25.6%	19.9%
2007	59,509	56,068	115,577	10,541	15,373	25,914	10,541	15,373	25,914	17.7%	27.4%	22.4%
2008	67,669	62,072	129,741	47,529	48,799	96,328	47,529	48,799	96,328	70.2%	78.6%	74.2%
2009	84,965	72,789	157,754	54,431	52,817	107,248	54,431	52,817	107,248	64.1%	72.6%	68.0%
2010	87,421	73,866	161,287	70,507	62,785	133,292	70,507	62,785	133,292	80.7%	85.0%	82.6%

(Source: MINEDUC, 2012)

4-18 Number of Pupils per School, Classroom, Desk in Primary Education by Province in 2011

	Number of schools	Number of classrooms	Number of desks	Number of pupils	Pupils/ School	Pupils/ classroom	Pupils/ desk
Southern	690	7,165	119,578	583,211	845	81	5
Western	725	7,504	120,502	606,255	836	81	5
Eastern	503	6,633	113,754	556,759	1,107	84	5
Northern	450	5,219	89,580	431,438	959	83	5
Kigali	175	2,296	43,016	163,483	934	71	4
Rwanda	**2,543**	**28,817**	**486,430**	**2,341,146**	**921**	**81**	**5**

(Source: MINEDUC, 2012)

4-19 Number of Pupils per School, Classroom, Desk in Secondary Education by Province in 2011

	Number of schools	Number of classrooms	Number of desks	Number of pupils	Pupils/ School	Pupils/ classroom	Pupils/ desk
Southern	370	3,136	68,849	131,323	355	42	2
Western	341	2,787	55,173	120,527	353	43	2
Eastern	297	2,395	46,498	101,469	342	42	2
Northern	244	1,956	40,861	84,096	345	43	2
Kigali	110	1,223	25,337	49,022	446	40	2
Rwanda	**1,362**	**11,497**	**236,718**	**486,437**	**357**	**42**	**2**

(Source: MINEDUC, 2012)

Chapter 5

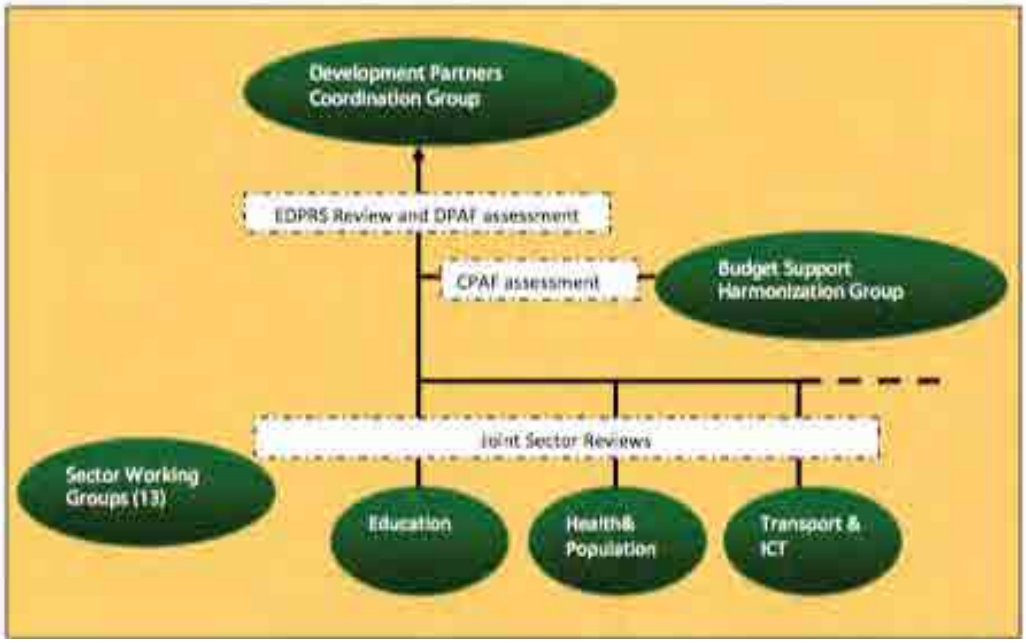
5-1 Budget for Education Sector by Sub-programmes (planned) in 2011/12 (RWF)

	Pre-primary education	Primary education	Lower secondary	Upper secondary	TVET	Higher education	Non-formal education	Common items
ECD model centers	794,878,440							
Teachers' cooperative		500,000,000						
Science and Technology		393,602,496	289,748,829	974,646,000				
Special needs education		214,035,803						
Girls education		36,880,000	417,962,256					
Health, AIDS & school environment		17,409,998	190,520,000					
Sport and culture		298,640,914	261,434,649					
ICT in education		6,377,644,164	450,800,000	631,821,865				
Curriculum development & textbooks	147,997,225	2,840,517,109	2,553,244,283	940,000,000				
Education quality & standard	2,040,000	155,623,776	140,000,000	23,341,118				
Training	12,503,127	1,150,396,974	535,867,000				76,981,216	
Exam & accreditation		1,028,590,467	2,202,125,046	1,508,250,689	675,127,400			
Teachers salary		21,179,051,121	10,674,553,016	4,574,808,435				
Capitation grants		21,439,555,052	3,542,264,691					
Catch up programmes		42,975,467						
Textbook transport		122,992,365						
District fund for education		93,843,570						
School feeding		-	4,206,381,223	1,802,734,810				
Construction & equipment			14,086,000,000	-	4,895,599,538	4,344,547,032		
9YBE monitoring and evaluation			190,520,000					
Distance learning					288,000,000			
Adult literacy							100,018,000	
Monitoring and evaluation					9,482,000	38,457,690		
Institutional support					11,412,012,777	29,230,120,522		6,309,497,226
Policy development								81,963,200
STI Initiative								592,392,448
Support to NCSTI								907,584,000

	Pre-primary education	Primary education	Lower secondary	Upper secondary	TVET	Higher education	Non-formal education	Common items
Support of science and technology initiatives								36,785,280
Research, science and technology								4,608,404,623

Chapter 6

6-1 Aid Coordination Architecture in Rwanda



(Source: MINECOFIN, 2010, p.9)

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