

BASIC EDUCATION SECTOR ANALYSIS REPORT

- ZAMBIA -

AUGUST 2012

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
INTERNATIONAL DEVELOPMENT CENTER OF JAPAN INC. (IDCJ)**

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12-070

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Map of Zambia (prior to the change of the administration¹)

¹ Following the change of the administration in September 2011, the North Western Province has been divided into the North Western Province and Muchinga Province. A map reflecting the change cannot be obtained at the time of the study.

Abbreviations

AWPB:	Annual Work Plan and Budget
BESSIP:	Basic Education Sub-Sector Investment Program
CDC:	Curriculum Development Center
CDRF:	Capacity Development Results Framework
CP:	Cooperating Partners
CPCC:	Cooperating Partner Coordinating Committee
CPD:	Continuing Professional Development
CSEN:	Children with Special Educational Needs
DEB:	District Education Board
DEBS:	District Education Board Secretary
DECC:	District Education Coordinating Committee
DEMC:	District Education Management Committee
DHS:	Demographic and Health Survey
EC:	European Commission
ECCDE:	Early Childhood Care, Development and Education
ECZ:	Examination Council of Zambia
EFA:	Education for All
EMIS:	Education Management Information System
FBE:	Free Basic Education
FNDP:	Fifth National Development Plan
FTC:	Financial Technical Committee
FTI:	Fast Track Initiative
GA:	Grant Aided
GDP:	Gross Domestic Product
GER:	Gross Enrollment Rate
GIR:	Gross Intake Rate
GPI:	Gender Parity Index
GRZ:	Government of the Republic of Zambia
HDI:	Human Development Index
HIV/AIDS:	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICT:	Information and Communication Technology
IDCJ:	International Development Center of Japan Inc.
INSET:	In-Service Training
IOB:	Policy and Operations Evaluation Department (Netherland)
IRI:	Interactive Radio Instruction
JASZ:	Joint Assistance Strategy for Zambia
JICA:	Japan International Cooperation Agency
MCDSS:	Ministry of Community Development and Social Services
MDG:	Millennium Development Goals

MESVT:	Ministry of Education, Science and Vocational Training
MLGH:	Ministry of Local Government and Housing
MMD:	Movement for Multi-party Democracy
MoU:	Memorandum of Understanding
MSTVT:	Ministry of Science, Technology and Vocational Training
MSYCD:	Ministry of Sport, Youth and Child Development
MTEF:	Medium-term Expenditure Framework
NER:	Net Enrollment Rate
NGO:	Non-Government Organization
NIF:	National Implementation Framework
NIR:	Net Intake Rate
NISTCOL:	National In-Service Teacher Training College
PAF:	Performance Assessment Framework
PAGE:	Programme for Advancement of Girl's Education
PECC:	Provincial Education Coordinating Committee
PEMC:	Provincial Education Management Committee
PEO:	Provincial Education Office
PF:	Patriotic Front
PITC:	Policy and Implementation Technical Committee
PRESET:	Pre-Service Training
PSLCE:	Primary School Leaving Certificate Examination
PTA:	Parents and Teachers Association
PTC:	Procurement Technical Committee
PTR:	Pupil Teacher Ratio
SACMEQ:	Southern and Eastern Africa Consortium for Monitoring Education Quality
SNDP:	Sixth National Development Plan
SPRINT:	School Programme of Inservice for the Term
STEPS:	Strengthening Teacher's Performance and Skills through School-based Continuing Professional Development Project
SWAp:	Sector Wide Approach
TBS:	Targeted Budget Support
TESS:	(Directorate of) Teacher Education and Specialized Services
UBSLE:	Upper Basic School leaving Examination
UIS:	UNESCO Institute for Statistics
UNDP:	United Nations Development Programme
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UNICEF:	United Nations Children's Fund
USAID:	United States Agency for International Development
WB:	World Bank
WBI:	World Bank Institute
WFP:	World Food Programme

WHIP: Wider Harmonization in Practice
ZMK: Zambia Kwacha

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 America² 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 Zambia

Since its independence in 1964, Zambia has enjoyed a period of stable domestic political environment and good internal security. The country experienced its first regime change in 20 years in September 2011 when Michael Chilufya Sata, the leader of the Patriotic Front, was elected the new president. The major socio-economic indicators are: GNI per capita: USD 1,070 (current international \$), GDP growth rate: 7.6%, population living below 1US\$ per day: 64%, life expectancy: 48 years, and adult literacy rate: 70%.

Chapter 3: Educational Policies and Reforms

The education policy "Educating our Future" introduced in 1996 aimed to raise the net enrollment rates in Grades 1 up to 7 to 100% by 2005. To achieve these goals, basic infrastructure was developed in line with the Basic Education Sub-Sector Investment Program and Free Basic Education at Grades 1-7 was introduced. After the regime changed in September 2011, the education system was changed backed to its former system of 7 years of primary education and 5 years of secondary education to reflect the manifesto of the new government.

The main strategies of the draft National Implementation Framework (NIF) III, which is an implementation plan of the Sixth National Development Plan, include: 1) improve access, efficiency, equity and quality of pre-primary and primary education; 2) improve access, efficiency, equity and quality of secondary education; 3) increase the number of qualified and competent teachers; 4) improve access, participation and equity in the provision of quality university education; 5) improve efficiency and equity of technical and vocational training; 6) increase adult literacy; 7) expand and improve educational infrastructure; and 8) revise the curriculum.

² The target countries are Kenya, Ethiopia, Uganda, Rwanda, Malawi, Zambia, Cameroon, Senegal, Mali, Niger, Burkina Faso, Guatemala, and Nicaragua.

The educational administration consists of the ministry of education at the central level, Provincial Education Office, District Education Board, and the school inspector system. The central government reform following the regime change also shifted the government body in charge of educational administration from the Ministry of Education to the Ministry of Education, Science and Vocational Training (hereinafter referred to as “Ministry of Education (MoE)”)

Chapter 4: Status and Challenges of Basic Education Sector Development

[Access] Following the policy of free education in Grades 1 to 7 and the increase of community schools, the number of enrolled students increased, especially with increased enrollment from poor families. While net enrollment rate (NER) in basic education (Grades 1 to 9) remained at 74.8% in 2002, it recorded 84.0% in 2010. The gross enrollment rate (GER) in secondary education remained low at 33.4% in 2010, though this showed relative improvement thanks to the increase of private schools. The gender and income gaps remained in the secondary enrollment.

[Internal Efficiency] Promotion (transition) rates are around 80-90% in all grades except for 56.0% and 41.0% of Grades 7 and 9 which are required to take the examination. This is partly due to the fact that the exam is used to cut off the progression based on the capacity of upper grades. The repetition rates marked 5-7% in 1st to 6th grade but suddenly increased to 10.8% in 7th grade (11.8% of boys, 9.8% of girls) and further increased to 14.3% in Grade 9. Modest improvements were seen in dropout rates in both basic and secondary education despite rates leveling off from 2008 to 2010.

[Equity] The Gender Parity Index in 2009 in 1st to 4th grade marked 1.00 which showed improvement following the measures taken to strengthen girls’ education since 2002. However, numbers gradually dropped to 0.87 in Grades 10 to 12. Provincial differences also exist especially in survival rates to Grade 5 and transition rate to Grade 8. In addition, the ratio of orphans is high in Zambia mainly due to a high HIV infection rate.

[Learning Outcomes] Completion rates improved in Grades 1 to 7 marking 90.4% in 2010 from merely one in three in 2000. However, the rates remained low at 53.2% in Grade 9. Though the result of the National Assessment of Learning Achievement has slightly improved, English had the lowest score at 35.5 below the preset bottom line score (mathematics score was 39.3). There were also regional and gender gaps in the results. In the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ) assessment, Zambia ranked 13th of 14 countries in reading and 12th in mathematics.

[Learning Environment] Many public and community schools have adopted double/triple shift system in Grades 1 to 4. The adoption of this system has led to a decrease in the amount of time students and teachers interact with each other. The average instruction time is currently as low as 3 hours and 20 minutes per day. Children’s grades are lower in schools adopting a shift system, where teachers teach two cycles a day, compared to those schools with a single shift

system. In addition, 16% of the classrooms in rural areas are temporary or insufficient facilities (73% in rural community schools).

[Textbook Distribution System] The MoE has set a goal of providing one textbook for every two pupils/students. Though this benchmark seems achievable in some subjects such as English, there is a shortage of textbooks in other subjects such as life skills. Textbook needs to be approved by the government, and the newly decentralized system of textbook procurement has not been functioning well.

[Curriculum] The MoE is currently revising the curriculum of basic education developed in 2000 and the curriculum for secondary education formulated back in 1994. The main features of the revision include 1) using the local language as the medium of instruction from 1st to 4th grade; 2) allowing students to choose an academic or technical path from Grade 8; and 3) reorganizing and integrating subjects.

[Teaching Staff] The increase in the number of teachers has not caught up with the rapidly increasing enrollment. Teachers without qualification account for 7.8% of the total in basic education and 18.2% in secondary education. Teacher salaries were raised from below the national household poverty line until 2003 to exceeding the average of 33 African countries in 2004. In addition, there are additional incentives such as remote allowance and allowance for double shifting. Still, teachers tend to prefer urban schools. The turnover rate was as high as 25% in 2010. Many primary teachers move up to junior or senior secondary schools by obtaining higher qualification. In-service training is provided by two public colleges of education and through the School Programme of In-service for the Term (SPRINT).

Chapter 5: Public Finance and Administration in the Education Sector

The new administration plans to further enhance decentralization which has not been implemented as planned. In terms of the management capacity of the MoE, most of the target values set forth in the sector development plans were not yet achieved or deteriorated except for access. In addition, human resource allocation is not sufficient, and development of the NIF III has been delayed. Therefore, it may be said the management capacity is “low in general” based on the analysis utilizing the concept of the Capacity Development Results Framework of the World Bank Institute.

In terms of education finance, the education sector budget was increased from 2.9% to 3.5% of GDP from 2006 to 2010. It was 19.9% of the government budget in 2010, with 60% allocated to basic education, 20% to secondary education and 12% to tertiary education. Salaries of teaching staff accounted for the highest portion (56%) of the budget allocated to the education sector, followed by infrastructure development budgets (23%). Despite the increase of the budget, it is not yet sufficient to cover the increase of teachers to catch up with the increase of enrollment. While the item called institutional management was executed at 172% of the allocated budget, equity and teacher education were executed 25% and 34% respectively. School grants were introduced in 2000. The proportion of donor assistance in the sector budget was 20% to 30% in

around 2000. However, this number decreased to 9.8% in 2010 as the government allocated a higher portion to the education sector since 2003. The Pool Fund was temporarily frozen between 2010 and 2011.

Chapter 6: Trends in Donor Assistance

The Zambian government started to assess aid with its donors from 2003. The Joint Assistance Strategy for Zambia was formulated since 2004 and signed by the government and 16 donors including Japan. Ireland and UNICEF have been the “lead” donors in the Division of Labour in the Education and Skills Development sector, while Japan is identified as an “active” donor. In the Memorandum of Understanding (MoU) signed in 2008, both financial and technical cooperation were regarded as important aid modality. Given this, the situation has changed where financial aid was emphasized and project-type assistance was neglected previously. While the Netherlands had been the largest donor from 2006 to 2010, it has withdrawn from the education sector at the end of 2011.

Chapter 7: Results of Analysis

When comparing education indices of Zambia to that of other countries in Sub-Saharan Africa and benchmark indices of the FTI indicative framework, the study found the following critical problems. These include low GERs in secondary education, high pupil teacher ratio in basic education, insufficient instruction time, and teaching staff salaries amounting to a high proportion of the recurrent budget. In addition, there were large gaps in transition rate to Grade 8 for different provinces and survival rates to Grade 9 depending on the student’s residing province and gender.

Examining the factors that led to these problems, the study found that low GERs in secondary education was induced from low promotion rates in Grades 6 and higher, low completion rates in Grade 9, and a lack of secondary schools leading to students not being able to enroll in secondary school even after passing their transition test in Grade 9. Low investment levels in secondary education from 2002, which was sufficiently lower than investment dedicated to basic education, is one of the main reasons for the lack of secondary schools. In addition, many households cannot afford to send their children to school after Grade 8 as education is no longer free. A large number of orphans are also a factor of low enrollment rates, as they often drop out of school before they reach Grade 9. Enrollment rate in secondary education was lower for girls than boys, as many girls were forced to drop out due to marriage or pregnancy. Some communities also neglected sending girls out to schools distanced from their home.

In addition, high pupil teacher ratio was caused due to a lack of teachers compared to the number of students increasing at a rapid pace. High pupil teacher ratio was also caused by teachers working under a double or triple shift system in order to avoid too much congestion in classrooms under the condition of insufficient number of classrooms and teacher training.

The shift system is causing insufficient instruction time. In addition, instruction time decreases when teachers attend training or take holidays or when school holds events and during the

transition tests (absenteeism). Head teachers are not fully skilled in managing schools and teaching staff, which is also a negative factor.

In addition, the problem of teaching staff salaries amounting to a high proportion of the recurrent budget has been creating obstacles in solving many problems in the education sector.

Socio-economic factors of different provinces and the distance of towns and villages are considered to be the factors of large regional and gender gaps in transition rates to Grade 8 and survival rates to Grade 9. Other factors causing this gap include high proportion of orphans and pregnant girls in pupils/students and the fact that many schools in the remote areas recorded high pupil teacher ratio caused by inadequacy of teachers.

The government policy identifies priority areas as: providing education facilities and developing human resources; abolition of the double shift system; and improving labor conditions for teachers and increasing the number of teachers. These are the issues that need to be tackled in order to raise secondary enrollment rates, reduce the pupil teacher ratio and increase the instruction time. However, there has not been any concrete plan in the NIF III to abolish the shift system or to deal with increasing teacher salaries, and the sector pool funds are on the decrease. In addition, it is not clear how the government will address the issues of gender and regional inequality in the education sector.

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. Important issues to note are: 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, and 4) the amount of available information varies depending on specific topics and indicators.

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- ZAMBIA -**

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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 (SWAs) 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 and 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 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.

<u>February - April 2012:</u>	<u>Formulation of Inception Report</u> <ul style="list-style-type: none">- 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.
<u>February - May 2012:</u>	<u>Preparation of Field Survey</u> <ul style="list-style-type: none">- 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
<u>March - June 2012:</u>	<u>Conducting of Field Survey</u> <ul style="list-style-type: none">- Information gathering from government agencies, international development partners, international organization, and JICA office etc.- School and project site visits
<u>May - June 2012:</u>	<u>Drafting of Basic Education Sector Analysis Reports by Country</u>
<u>July 2012:</u>	<u>Formulation of Final Report</u> <ul style="list-style-type: none">- Comprehensive and comparative analysis of the country-wise 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 Zambia was conducted by Dr. Yoko Ishida, Director, Evaluation Department, International Development Center of Japan Inc. (IDCJ).

Table1-1 : 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
Country-wise Basic Education Sector Analysis 1	Naomi Takasawa (IDCJ)	Cameroon, Niger
Country-wise Basic Education Sector Analysis 2	Emi Ogata (IDCJ)	Senegal
Country-wise Basic Education Sector Analysis 3	Yoko Takimoto (Recycle One, Inc.)	Ethiopia, Kenya
Country-wise Basic Education Sector Analysis 4	Miko Maekawa (IDCJ)	Rwanda
Country-wise 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)	

CHAPTER 2: POLITICAL AND SOCIO-ECONOMIC SITUATION IN ZAMBIA

2.1 Political Situation

Zambia has maintained a relatively stable politics since its independence in 1964. The multi-party system was introduced at the election in October 1991 and the Movement for Multiparty Democracy (MMD) led by President Chiluba claimed the landslide victory. In December 2001, the then vice-president Mwanawasa closely won the presidential election. He pursued tackling corruption and pragmatic politics by promoting specialists, and thereby strictly dealt with corruption cases of the former regime. Though he was reelected in September 2006, he passed away in August 2008 due to his illness. The by-election was held in October 2008, and the then vice-president Banda was elected. President Banda continued the policy of Mwanawasa focusing on economic development to join the middle income country by 2030. In September 2011, Michael Chilufya Sata from the opposition party, Patriotic Front (PF), won the presidential election and became the fifth president. This change of government was a historic event for Zambia, considering that the MMD had been the governing party for 20 years since the introduction of the multiparty system (MoFA, 2012).

2.2 Socio-economic Situation

The socioeconomic indicators of Zambia are shown in the table below:

1) Country Name:	Republic of Zambia
2) Area:	752,610km ² *1
3) Population:	12.93 million*2, Annual grown rate 1.6%*2, Population density 17/ km ² , Urban population 35.7%*2
4) Ethnic groups:	73 ethnic groups (Tonga, Nyanja, Bemba, Lunda, etc.)*1
5) Languages:	English (official language), Bemba, Nyanja, Tonga*1 etc.
6) Religions:	Nearly 80% population are Christian; others are Muslims, Hindus, and traditional religions*1
7) Major industries:	A monoculture economy dependent on copper production*1
8) GDP:	16,193 million US\$ (current US\$) (2010)*1
9) GNI per capita	1,070 US\$ (current US\$) (2010)*1
10) GDP growth rate:	7.6% (2010)*2
11) Consumer price index (2005=100):	166.9 (2010)*2
12) Currency:	Zambian Kwacha (ZMK)
13) Exchange rate:	US\$ 1 = approximately 5,265 ZMK (March 2012)*1
14) Life expectancy:	48.5 years (2010)*1
15) Adult literacy rate:	70% (2009)*2
16) Prevalence of HIV (ages 15-49) :	13.5% (2009)*2

*1 Ministry of Foreign Affairs of Japan Home page "Kakkoku Chiiki Josei" (Japanese) (accessed on 1st May 2012).

*2 World Bank Homepage "World Data Bank" (accessed on 1st May 2012).

Zambia has 10 provinces with 80 districts in June 2011; there were previously 9 (nine) provinces with 72 districts. The biggest North Western Province was divided into two provinces. Some big districts were divided into two, which resulted in the increase of 8 (eight) districts, following the regime change (Interview with JICA Zambia Office). The disaggregated data of the population, socio-economic and education statistics utilized in this Study are based on the former 9 (nine) provinces, which were only available data at the time of the Study.

According to the Sixth National Development Plan (SNDP), the national poverty level (percentage of population living below the poverty line of 1 US\$ per day) in 2006 was 64%. When looking at the provincial poverty level, Lusaka and Copperbelt Provinces had the ones of below 50%; whereas other six provinces had above 60%. Western Province had the highest poverty level in Zambia, followed by Eastern and Northern Provinces.

The disaggregated data on population, population density, area, population growth rate, and poverty level by province is shown in Annex 2-1 and 2-2.

CHAPTER 3: EDUCATIONAL POLICIES AND REFORMS

3.1 National Development Plans

The Fifth National Development Plan (FNDP, 2006-2010) of Zambia gave the priority to the education sector. The main policies for the sector were improving the quality of education and enhancing the skill development, and the main strategies were to strengthen employment of teachers; to provide teaching materials; to construct classrooms; and to deploy teachers so as to catering to rapidly growing enrollment (FNDP, 2006). After the FNDP period, it was found that classroom construction and employment of teachers had been promoted in the basic education sector, and there were improved enrollment and gender gap. However, there were still many problems related to the quality of education and the learning outcome remained at low level (GRZ, 2010).

The theme of the Sixth National Development Plan (SNDP, 2011-2015) is “sustained economic growth and poverty reduction,” and the objectives of the SNDP are to accelerate infrastructure development, economic growth and diversification, rural investment and poverty reduction and enhance human development. The vision of the education sector is “innovative and productive life-long education and training for all by 2030.” The strategic focus of the sector is on expanding access to upper secondary and higher education and improving the quality of education at all levels. To improve the quality of education, the revision of curriculum, capacity development of teachers and placement of teachers in remote rural area are set as the main strategies³ (GRZ, 2010). The SNDP goals in the education sector are shown in Annex 3-1.

3.2 Education Act

The Education Act was established in 1966. It shows the basic framework of the primary, secondary and higher education. As it had been over 40 years from the establishment, the Act hampered parents' rights to choose the type of education for their children, failed to tap the valuable human and financial resources available in the non-governmental sector (private sector and NGO), prevented communities from participating in education and was incapable of responding to the needs of individuals and the country (MoE, 1996). To this effect, the Act was revised in 2011. However, to review the Education Act is part of “the Basic Policy for Education Development⁴” in the manifesto of the new regime “Patriotic Front 2011-2016 Manifesto,” and in response, MoE also states the needs for reviewing the Act 2011 again in the draft “National Implementation Framework III (NIF III)” (MoE, 2012a).

³ The midterm evaluation of “National Implementation Framework (NIF) II”, the implementation plan of FNDP and the education area of FNDP, had conducted by MoE in 2010. The review is shown in “3.5 Education Sector Plan”.

⁴ The policy is presented in Annex 3-2.

3.3 Education Policy

The education policy of “Educating our Future”, introduced in 1996, emphasized the importance of education to promote democracy under the new national structure of multiparty system and clearly stated the role of education administration, the basic policies for education development, and the goals of the nation educational system. The basic policies for education development included “liberalization of education”, “decentralization of the education system” and “enhancement of the partnership”. The policy defined the main actors of education as the local community such as provinces, districts and villages etc. and encouraged the private sector and the religious parties to manage schools, with the notion that liberalization of school management would bring about the expansion of education opportunity. The policy also advocated for “equity of education” and promoted improving regional gap and life-long education (MoE, 1996).

The policy aimed at the achievement of 100% net enrollment rates in Grades 1-7 by 2005; of 50% progression rate to Grade 8 of the students who completed Grade 7 by 2005; and of 100% progression rate to Grade 8 of the students who completed Grade 7 by 2015 (MoE, 1996).

To achieve these goals, basic infrastructure was developed in line with the Basic Education Sub-Sector Investment Program (BESSIP, 1999-2002) and Free Basic Education (FBE) at Grades 1-7 was introduced and implemented in 2002. Before FBE, each household had to bear parts of education cost such as uniform and PTA fees under the cost sharing system. Thanks to FBE, PTA fees in Grades 1-7 was abolished essentially, uniforms became no longer a duty, and stationery needed at school such as pencils and notes were provided (WB, 2006).

Though “Educating Our Future” is still the basic principle of the basic education sector in Zambia, the NIF III (draft) stated that this education policy needed to be reviewed also in line with the new government policy (MoE, 2012a).

3.4 Education System

Before 1996, the primary/secondary education system consisted of 12 years with 7 years of primary education (Grades 1-7) and 5 years of secondary education (Grades 8-12). After the introduction of “Educating Our Future” in 1996, the 12-year system became 9-year basic education (Grades 1-9) and 3-year high school education (Grades 10-12) (JICA, 2011). This change was based on the government policy that basic schools should cover up to Grade 9 to provide more children with at least 9 years of education (WB, 2006).

In September 2011, the education stages were changed back to the primary/secondary education system before 1996 (12-year system of 7 years in primary and 5 years in secondary) to reflect the manifesto of the new government. This change is said to have the aim to enhance primary and secondary education separately by returning to the former system since the basic education development of the former government had not produced sufficient outcome (PF, 2011).

In either education system, the first year of primary (basic) education is called Grade 1 and the last year of secondary education is called Grade 12. Grades 7 and 9 students sit for the national examination in the final term so that it can be determined who can advance to the next educational stage (MoE, 1996).

3.5 Education Sector Plans

To attain EFA goals through improving access and quality, efficiency of education service and equity of education, MoE had implemented the National Implementation Framework II (NIFII, 2008-2010), which was the detailed plan of education development of FNDP (MoE, 2010b). The midterm review of NIFII was conducted in 2010. The report of the review mentioned that there were great leap during 1997-2007 from the “lost era” during 1980s and 1990s before democratization. However, the report pointed out that despite the improvement of infrastructure the other education indicators declined gradually and learning outcome of pupils at each education stage remained at a low level. The report concluded that main reasons for such condition were the low capacity of service delivery and accountability. Besides, it pointed out that MoE had not recognized community schools formally for a long time despite that many community schools were established following liberalization of education and have made a great contribution to increasing enrollment rate. Based on the result of the review, MoE changed their attitude and way of thinking completely in setting the SNDP goals. The goals showed the importance of understanding what happens in classes, focus on the improvement of quality of learning and cooperate with communities, parents and civil society (MoE, 2010b).

Although the NIF III (2011-2015), the detailed plan of SNDP, was supposed to have been at the implementation stage in the beginning of 2011, its formulation was delayed considerably. It created a negative influence on securing of financing through budgetary support from donors and formulation and implementation of the budget plan⁵ (Interview with Directorate of Planning and Information, MoE).

The draft NIF III showed the following 8 (eight) broad objectives:

- 1) To increase access, efficiency and equity to quality early childhood care, development and education (ECCDE) and Primary Education
- 2) To increase access, efficiency and equity to quality Secondary School education
- 3) To increase the number of qualified and competent teachers in schools
- 4) To increase access, participation and equity in the provision of quality university education
- 5) To increase efficiency and equitable access to quality Basic Skills and Technical Education and Vocational Training
- 6) To increase Adult Literacy levels
- 7) To expand and improve infrastructure

⁵ NIF III was “final draft” and not finalized as of 14th May 2012.

- 8) To review the curriculum at all levels to make it relevant and responsive to national aspirations and education needs

In line with the basic policy for the education development upheld in the manifesto of the new government, the draft NIF III included development of community schools, review of the medium of instruction in primary education, introduction of academic and technical paths and improvement of working conditions of teachers.

3.6 Supervisory Authority

MoE had had been tasked with educational administration at the central level: formulating laws related to primary, secondary, tertiary and teacher education, developing education policy, preparing education plans, developing curriculum and formulating and distributing budget (JICA, 2011). Local educational administration of primary and secondary education is left to Provincial Education Office (PEO) and District Education Board (DEB) (JICA, 2011).

Previously, the organization structure of MoE was headed by two permanent secretaries under the minister and deputy minister. Then, there were five directorates: Directorate of Human Resource and Administration, Directorate of Planning and Information, Directorate of Open and Distance Education, Directorate of Standards and Curriculum, and Directorate of Teacher Education and Specialized Services (TESS). Schools for Continuing Education, National Science Centre and Curriculum Development Centre are the affiliated institutions of MoE. The existing three national universities and Examination Council of Zambia (ECZ) are the agencies under MoE (JICA, 2011).

Following the change of the administration in September 2011, the former Ministry of Education was merged with the Ministry of Science, Technology and Vocational Training (MSTVT) as the Ministry of Education, Science and Vocational Training (MESVT) (hereinafter referred to as “Ministry of Education (MoE)”) (MoE, 2012a). Pre-school education which is one of the priorities of the new government was shifted to the responsibility of the Ministry of Local Government and Housing (MLGH) immediately after the establishment of the new regime, but came back to MoE in February 2012 with the reason that the area has high specialization in education (JICA, 2011).

The reformed organizational structure of MESVT including names of bureaus has been under preparation. Though MoE originally did not have a separate directorate for each subsector, it is likely that skill education, vocational training, and science technology are placed under a new directorate as they were originally under a different ministry.

Annex 3-3 and 3-4 show the organization structure of MoE and tasks and responsibilities of various sections within the ministry shown in the draft NIF III.

CHAPTER 4: STATUS AND CHALLENGES OF BASIC EDUCATION SECTOR DEVELOPMENT

4.1 Access

4.1.1 School Age Population

The population from the age 7 to 18, which is the school age of primary/secondary education, was approximately 3.534 million in 2000; 3.985 million in 2005; and 4.581million in 2010. The average annual growth rate during 2006-2010 was 2.8%, which was higher than that of 2000-2005, or 2.4%⁶ (UNESCO, 2012). The school age population occupied 35.4% of the total population of 12.927 million in 2010 (World Bank 2012).

The estimated school age population in 2020 is 6.038 million, assuming that the population will grow with the same average annual growth rates of 2006-2010 based on the data obtained from UNESCO Institute for Statistics (UIS),⁷ as the projection of school age population could not be obtained.

4.1.2 Enrollment Trend of Pre-school Education

Pre-school education has been provided in the urban areas by the private sector and civil society. The enrollment rates in 2007 was 17.1% (MoE, 2012a) and the ratio of pupils who went to pre-school school to the total Grade 1 entrants in 2010 was only 17.3%⁸ (MoE, 2010a). The manifesto of the new regime defined pre-school education as a priority area and the NIF III advocates that the government will support the pre-school education in institutional development, enhanced coordination among stakeholders, and human resource development although the provider of pre-school education will remain to be the private sector (MoE, 2012a).

The concrete strategies of the PF manifesto included the following; policy development of pre-school education, placement of officers in charge of pre-school education at the central, provincial and district levels, development and dissemination of the ECCDE centre model, support to infrastructure development of ECCDE centres, and training of caregivers and trainers (PF, 2011). The on-going revision of curriculum includes the pre-school education curriculum (MoE, 2012a).

4.1.3 Enrollment Trend of Basic Education

Introduction of the FBE policy in 2002 brought about not only the increase of the enrollment from Grade 1 to Grade 7 but also the significant improvement of gross enrollment rates (GERs)

⁶ See Annex 4-1.

⁷ Obtained from “Data Centre” of UNESCO Institute for Statistics (UIS) Website on 25th May 2012. (http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng)

⁸ See Annex 4-6.

and net enrollment rates (NERs) in the entire basic education (JICA, 2011). This was led not only by the government policy but also by the significant contribution of the increased community schools, to which the poor children and orphans could go (IOB, 2008). On the other hand, over 10% of children are still out of school and most of them are considered to be poor or live in remote communities (MoE, 2012a).

(1) Number of Schools

The total number of basic schools (Grades 1-9) has increased by the average of 4.8% annually from 5,324 in 2000 to 8,493 in 2010⁹ (MoE, 2009 and 2010a). Basic education¹⁰ can be categorized into five types by management body: public schools, grant-aided schools (GA schools¹¹), community schools¹², private schools, and schools run by religious bodies¹³ (JICA, 2011).

While the number of public schools and GA schools was increasing, their proportion in the total schools decreased gradually from 81% in 2000 to 60.8% in 2010.¹⁴ On the other hand, the proportion of community schools increased from 16.6% in 2000 to over 30% after 2006. It is not necessarily the case that more community schools are located in rural area; the highest proportion (50.7%) of community schools is found in Lusaka (MoE, 2009 and 2010a).

(2) Enrollment

Enrollment in the basic education stage increased from 2.5 million in 2004 to 3.5 million in 2010, which was 1.4 times more in volume, with the average annual growth rate of 5.8%.¹⁵ Although the enrollment of boys exceeded that of girls from 2004 to 2010, the gender gap was reduced from 3.2 point in 2004 (enrollment of boys was 51.6% of the total and that of girls was 48.4%), to 0.6 point in 2010 (MoE, 2009 and 2010a). Of total enrollment of 2010, 77.6% went to public school, 3.3% went to GA schools, 3.3% went to private schools and schools run by religious bodies, and 15.8% went to community schools (MoE, 2010a).

⁹ Not all basic schools in the statistics cover grade 1 to 9. In 2010 for example, 3,176 schools (37.4% of the total) covered grade 1 to 9, 4,470 schools (52.6%) covered up to grade 7, 842 schools (9.9%) covered from grade 1 to 4, and five schools (0.1%) provides only grades 8 and 9 (MoE, 2010).

¹⁰ The education system was changed in 2012 to include primary (Grades 1 to 7) and secondary (Grades 8 to 12) education in basic education. This study, however, shows the education statistics based on the previous education system of basic and secondary education, as the data source is the MoE statistics of 2010 or earlier.

¹¹ Schools run by religious institutions and receive government assistance (JICA, 2011).

¹² Schools established by the community in areas without public schools or for children from poor families which cannot afford public school fees such as PTA fees. These schools are run by the community and teacher salary is paid by the community contribution (World Bank, 2006).

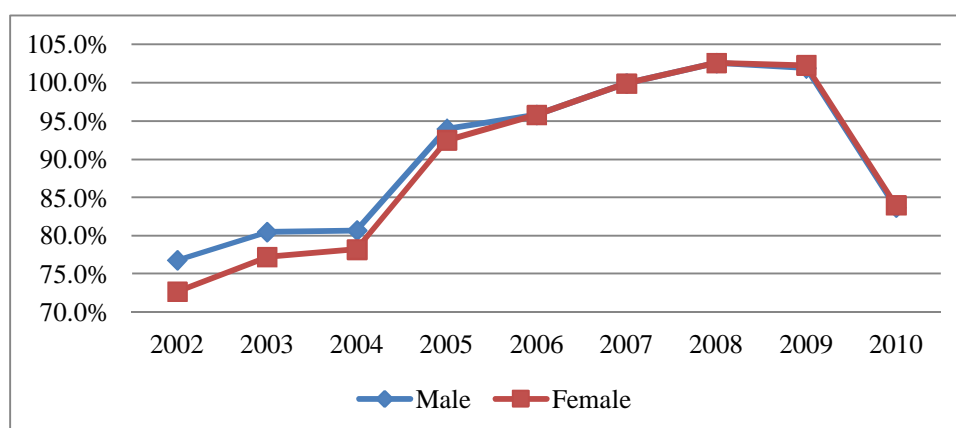
¹³ Schools run by religious institutions without any government assistance (JICA, 2011).

¹⁴ See Annex 4-2.

¹⁵ See Annexes 4-3 and 4-5.

(3) Enrollment Rates

GER of basic education was 96.0% in 2010 showing over a 10% increase from 83.7% in 2002.¹⁶ NER increased by 9.2% from 74.8% in 2002 to 84.0% in 2010¹⁷ (MoE, 2009 and 2010a). GER/NER decreased significantly in 2010, as the education statistics of MoE started to use the figure of the school age population of the 2010 census in calculation (Interview with Planning and information, MoE). The gender gap has been gradually reduced since 2002, the enrollment rates became equal in 2006 to 2008, and the rate of girls exceeded that of boys in 2009 and 2010 (MoE, 2009 and 2010a).



(Source: MoE, 2009 and 2010)

Note: Net enrollment rate exceeds 100% during 2007-2009. It can be interpreted that this was caused by the problem on the estimate of school age population. From 2010, the result of the population census 2010 is used (MoE, 2009).

Figure 4-1: Trend of NER in Basic Education by Gender (2002-2010)

According to the Demographic and Health Survey Report, GER increased from 51% in 2000 to 80-90% in 2005 in the lowest group of the income quintile groups and it is assumed that about 60% of the enrollment increase appeared in the poor area (IOB, 2008).

(4) Intake Rates

GIR of basic education increased from 104.5% in 2002 to 121.3% in 2010¹⁸ (MoE, 2009 and 2010). While net intake rate (NIR) increased from 41.1% in 2002 to 53.7% (boys 51.3%, girls 56.2%), it was still low (MoE, 2009 and 2010). This reason behind the low figure is considered to be the situation that many children enter schools at the age of 8 or above, although the age to enter school is defined by the government as 7 years old (World Bank, 2006). The intake rate of community schools is increasing, and the proportion of community school entrants to the total

¹⁶ See Annex 4-7.

¹⁷ See Annex 4-8 and 4-9.

¹⁸ See Annex 4-10 and 4-11.

intake became one out of five pupils in 2005 from one out of ten in 2000 (IOB, 2008).

4.1.4 Enrollment Trend of Secondary Education

The number of schools and enrollment of secondary education were increasing; yet GER was still low, 33.4% in 2010 which was lower than the average 35.3% of African countries (UNDP, 2011). GER of boys is higher than that of girls and the gap was widening (MoE, 2009 and 2010a). The hindrance to improve enrollment rates of secondary education was that the number of secondary school is still a few and the students of the poor families are incapable of paying school fees of secondary school (MoE, 2012a).

(1) Number of Schools

The total number of secondary schools (Grades 10-12) more than doubled from 271 in 2000 to 644 in 2010¹⁹ (MoE, 2009 and 2010), yet there were not enough schools to accept the rapidly increasing applicants from basic education (MoE, 2012a).

In terms of management body, most secondary schools were public schools in 2000 and 2001. Private schools increased since 2002 and became 140 schools, or 21.7% of the total, in 2010.²⁰ Lusaka Province had the highest proportion of private schools of 55.6% where public schools accounted for 35.4% (MoE, 2009 and 2010a). Community schools providing secondary education was quite a few; only eight schools (1.2% of the total) in 2010 (MoE, 2010a).

(2) Enrollment

Enrollment in the secondary education stage was 284,000 in 2010 that means 1.7 times more than 163,000 of 2004.²¹ Although the total capacity of secondary schools increased, the gender gap was widening, shown in the boys enrollment exceeding girls at all times, because of the high dropout rate in upper grades of primary school and the low completion rates among girls (MoE, 2009 and 2010a).

(3) Enrollment Rates

GER of secondary schools increased from 13.5% in 2004 to 33.4% in 2010 (Figure 4-2), yet the figure of girls was less (29.8%) than that of boys (37.1%) and the gap was widened from 3.5 point in 2002 to 7.3 point in 2010²² (MoE, 2009 and 2010a).

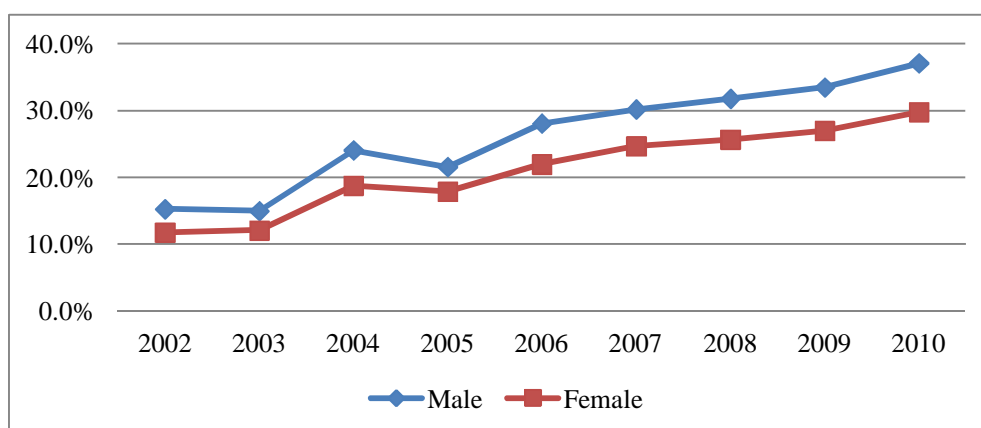
The figure of net enrollment rate was obtained only on 2010. It was 29.6% overall and the figure of girls (25.6%) was lower than boys (33.5%) by 7.9 points (MoE, 2010a).

¹⁹ Of these, 232 schools (36.0% of the total) cover Grades 10 to 12, 241 schools (37.4%) cover Grades 1 to 12, and 171 schools (26.6%) cover Grades 8 to 12 (MoE, 2010).

²⁰ See Annex 4-2.

²¹ See Annex 4-4.

²² See Annex 4-7 and 4-9.



(Source: MoE, 2009 and 2010a)

Figure 4-2: Trend of GER in Secondary Education by Gender (2002-2010)

4.1.5 Literacy Education

Adult literacy rate (age 15 and above) of Zambia was 70.9% in 2009 and the rate exceeded the average of Sub-Sahara African countries of 61.6% (UNDP, 2011). However, the allocation for literacy education was only 0.02% of the MoE budget, and the literacy education system is not sufficiently developed. Literacy education provides reading and writing skills for adults who had not received education or dropped out early at schools through agriculture and community development programs implemented by MCDSS or other opportunities (JICA, 2011). Most of the participants in adult literacy programs were women. In 2007, there were 2,091 literacy classes around the country with 41,894 learners (23.3% males, 76.7 females). There is no national curriculum of literacy education and each provider uses their own teaching method and materials (MoE, 2012a).

4.2 Internal Efficiency (Quantitative Internal Efficiency)

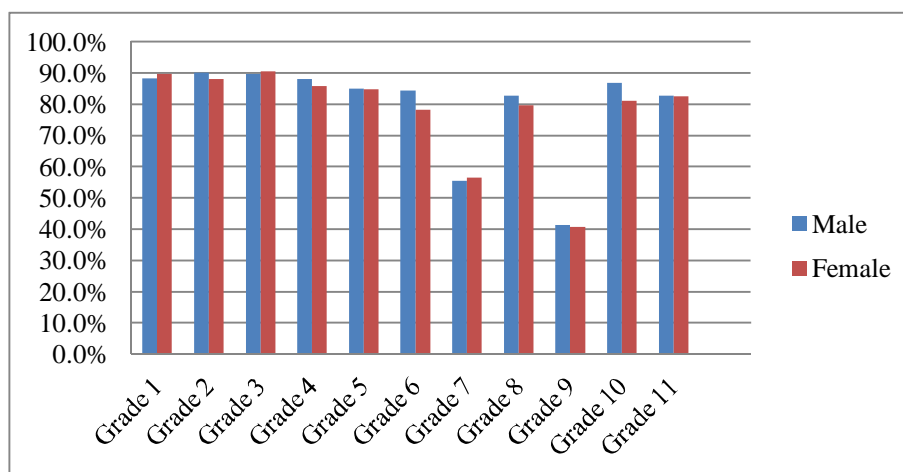
There was little improvement in promotion, repetition and dropout rates from 2002 to 2010. 10-20% of pupils did not progress in all grades and the progression rates of Grades 7 and 9 who take the national examination for transition were still low²³ (MoE, 2009 and 2010a). The main cause of this situation is that children of the poor families give up on promotion (transition) in many cases because of the school fees from Grade 8. In addition, the selection of pupils is another major factor. The selection is conducted since schools providing Grades 8-9 and 10-12 do not have enough capacity to receive all the pupils who wish to progress (transit)²⁴ (IOB, 2008), while pass rates of the national exam of Grades 7 and 9 is on the rise year after year (Interview with ECZ).

²³ The transition rates of Grades 7 and 9 and the exam are discussed below under the transition rates.

²⁴ In 2010, only less than 40% of the total, or 3,176 schools, covered from Grade 1 to Grade 9. Only 644 schools provided secondary education (above Grade 10) (MoE, 2010).

(1) Promotion (Transition) Rates²⁵

Promotion (transition) rates are low in Grades 7 (56.0%) and 9 (41.0%) which have the transition exam²⁶ to the upper grades. Among the other grades, the rates of Grade 1-5 were 80%-90%, while the rates were lower over Grade 6 with the lowest rate in Grade 8. The promotion (transition) rate of girls is less than that of boys in Grades 6, 8 and 10 with a large gender gap (Figure 4-3) (MoE, 2009).



(Source: MoE, Zambia Educational Statistical Bulletin 2009)

Figure 4-3: Promotion (Transition) Rates in Primary and Secondary Education by Grades and Gender (2009)

(2) Repetition/Dropout Rates

In primary education, the repetition rates in Grades 1-6 were 5-7%, but in Grade 7 the rate suddenly rose to 10.8% (boys 11.6%, girls 9.8%) and reached 14.3% in Grade 9²⁷ (MoE, 2009). Overall, the repetition rates of boys were higher than girls and the gap was largest in Grade 7 (MoE, 2009). In Grade 10 upwards, the repetition rates were relatively low (lower than 2.0%) with little gender gap, but the rates of girls exceeded boys slightly in Grades 11 and 12 (MoE, 2009).

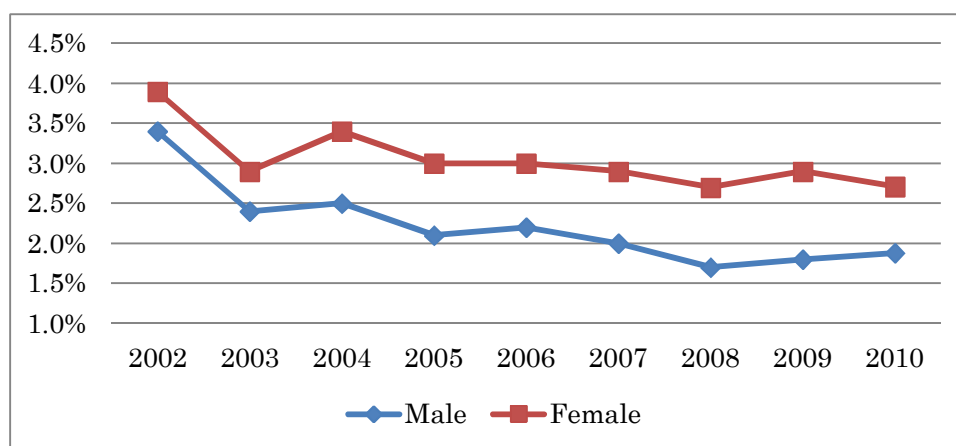
Dropout rates of basic and secondary education had a slight improvement from 3.6% and 1.8% in 2002 to 2.3% and 1.1% in 2010 respectively. However, there was little improvement during

²⁵ In the former education system, basic education was provided in the same Basic School. Therefore, from Grade 7 to Grade 8 was a progress. Since 2012, it became a transition, as primary education up to Grade 7 and secondary education from Grade 8 are regarded as separate education steps. On the other hand, from Grade 9 to Grade 10 is a progress within the same secondary education. Here, progress (transition) from Grades 7 and 9 to Grades 8 and 10 through exams are discussed together with progress of other grades.

²⁶ See Annex 4-12 and 4-13.

²⁷ See Annex 4-14.

2008-2010 (Figure 4-4)²⁸ (MoE, 2009 and 2010). In both primary and secondary education, the dropout rates of girls were higher than those of the boys (primary: boys 1.88%, girls 2.71%, secondary: boys 0.6%, girls 1.1%, 2010) (MoE, 2010). In terms of grades, the rates were higher in Grades 5-7 and the gender gaps were larger (MoE, 2009). Repetition rates and dropout rates are closely related so that there are many cases where teachers and parents have children repeat the grade in order not avoid dropping out (IOB, 2008). Female dropout rates in primary education were lower than the male rate, as many girls would rather choose dropout than repetition (IOB2008).



(Source: MoE, Education Statistics 2009 and 2010a)

Figure 4-4: Trend of Dropout Rates in Primary Education by Gender (2002-2010)

(3) Cohort Survival Rates

The survival rate, or the percentage of pupils enrolled in Grade 1 expected to reach Grade 5, improved from between 75-79% in 2002-2008 to 83.3% in 2009.²⁹ The rate was 86.0% for boys and 81.5% for girls, and the boys' rate was 4.5 point higher. It was estimated that 84,880 pupils, or 16.7% of the total of 508,264 Grade 1entrants in 2009, will drop out before completing Grade 5 and the investment for them will be wasted. In terms of gender, the female survival rate to Grade 5 was lower than that of male even though more girls entered Grade 1. The number of pupils to whom investment will be wasted is nearly 10,000 more for girls than boys (boys 35,476, girls 45,150) (MoE, 2009).

4.3 Equity

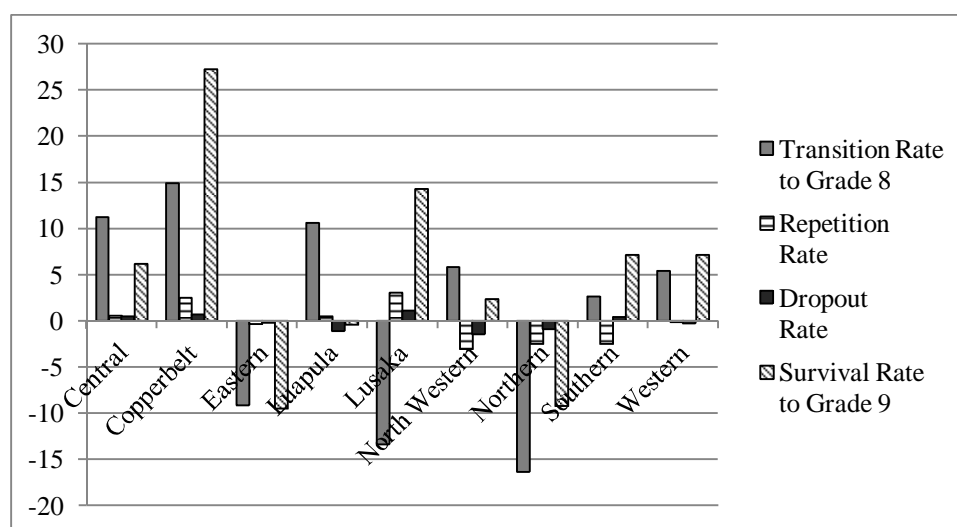
4.3.1 Comparative Analysis of Access by Group

(1) Transition/Repetition/Dropout/Survival Rates by Province and by Gender

²⁸ See Annex 4-15 and 4-16.

²⁹ See Annex 4-17.

Figure 4-5 shows the comparison against the national average of transition rates, repetition rates, dropout rates (2010) and survival rates (2009) of primary education by province.³⁰ The difference was large among provinces in transition rates to Grade 8 and survival rates in Grade 9, but small in repetition rates and dropout rates. In Central and Copperbelt Provinces, the figures of all four indicators were higher than the national average. In Lusaka Province, the figures were higher in repetition rate, dropout rate and survival rate, whereas transition rate was significantly lower than the average. In Eastern and Northern Provinces, the figures of all four indicators were lower than the average (MoE, 2009 and 2010a).



(Source: MoE. For repetition, dropout, and transition rates, Education Statistics 2010. For survival rates, Zambia Educational Statistical Bulletin 2009)

Figure 4-5: Comparison against the National Average of Transition, Repetition, Dropout and Survival Rates of Primary Education by Province

Looking at the gender gap among provinces in the above four indicators, in all provinces, male repetition rates were higher than female's; female dropout rates were higher than male's. Survival rates to Grade 9 were low in Eastern and Northern Provinces (20% level) and the figures of boys exceeded girls' in the seven provinces except Copperbelt and Luapula Provinces. North Western Province had the largest gender gap of 10.5 point, and there were relatively big gender gap in Southern (9.0), Northern (7.6) and Western (6.4) Provinces. Significant gender gaps were found in transition rates to Grade 10, where the male figures exceeded female's in the eight provinces except Southern Province (MoE, 2010a).

(2) Gender Parity Index

Since 2002, the Program for Advancement of Girl's Education (PAGE) to strengthen education

³⁰ See Annex 4-18.

for girls had been implemented throughout the country. In order to achieve the MDG goals related to gender and to improve Gender Parity Index (GPI), MoE has implemented various policies/programs; the policy to promote girls to return to school after childbirth, education campaign for local traditional leaders, “Go Girls” campaign, provision of scholarships, and introduction of child-centered learning (MoE, 2012a). As the result of these efforts, female access to primary education was improved, though there are still gender gaps in repetition rates and dropout rates and there has been no improvement in access to secondary education upwards (MoE, 2010a).

GPI (2009) gradually declined towards upper grades; 1.00 in Grades 1-4, 0.94 in Grades 5-7, 0.88 in Grades 8-9 and 0.87 in Grades 10-12.³¹ Looking at GPI by school management body, the figure was near 1.00 or above, meaning superior for girls in Grades 1-7 in all school types. In public schools, the figures were superior for boys in Grades 8-9 (0.9) and in Grades 10-12 (0.7). In community schools, the figures were almost 1.0 up to Grade 9 and 0.91 in Grades 10-12 (MoE, 2009).

4.3.2 Education for Children with Special Needs and Inclusive Education

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

Children with Special Education Needs (CSEN) were estimated at 8% of school aged children. MoE has promoted improvement of education for CSEN under BESSIP, and the number of CSEN in basic education increased by 8.5 times from 23,209 in 2002 to 198,394 in 2010. In secondary education, it also increased from 1,264 in 2002 to 4,297 in 2010, or 3.4 times³² (MoE, 2010a). While there has been improvement of access, teachers who can teach CSEN and teaching materials which meet the needs of special education have not been developed. Currently general teachers teach CSEN at general schools under the same condition with other children (MoE, 2012a and ZOCS, 2011).

A systematic screening system to identify and respond to CSEN has not been developed (ZOCS, 2011). Though CSEN is supposed to be identified when entered Grade 1 and reported to DEO, no data is available on how many CSEN are out-of-school and their educational coverage (Interview with Examination Council of Zambia (ECZ)). In addition, the transition examination does not take proper care for CSEN (Interview with ECZ).

(2) Enrollment Trend of Orphan

In Zambia, approximately 20% of children under 18 years old were orphan (7% are the orphan who lost both parents, 4% does not have mother and 11% does not have father) (Living Conditions Monitoring Survey 2002-2003).

³¹ See Annex 4-19.

³² See Annex 4-20.

In primary education, 649,398 pupils (boys 329,320, girls 320,078) which were 18.5% of the total enrollment in 2010 were orphan.³³ In secondary education, 61,811 pupils (boys 32,964, girls 28,847), or 21.8% of the total enrollment, were orphan in 2010 (MoE, 2010a). Zambia has a high HIV infection rate and AIDS mortality rate, and the increase of orphan is said to be mainly affected by HIV/AIDS.³⁴

Many orphans who lost both or one of their parents go to community schools which charge no school fee in primary education. 25.5% (one out of four) of the total enrollment in community schools were orphans in 2010 (MoE, 2010a). Scholarships are granted for orphans, and 50,904 pupils in Grades 1-7 (0.94% of the orphans enrolled in the same Grades³⁵), 37,027 pupils in Grades 8-9 (34.5%) and 18,367 pupils in Grades 10-12 (29.7%) received them. Besides scholarship, the government supports schooling of orphans through cooperation with NGO (MoE, 2012a). Attendance rate of orphans has been lower than the children with parents by 10-15% (WB, 2006). According to the research in Central province, many orphans did not go to school every day and could not concentrate on classes even if they attend because of hunger, all of which resulted in repetition and dropout (IOB, 2008).

For out-of-school orphans and children in remote areas, Interactive Radio Instruction (IRI) was introduced and some general schools used IRI program partly.³⁶ However, the program did not spread greatly because the program was only one-way teaching. MoE is considering the possibility of a new distant education system using Information and Communication Technology (ICT) (MoE, 2012a).

4.4 Quality of Education³⁷

4.4.1 Situation of Learning Outcome

(1) Completion Rates

Partly due to decreasing dropout rates, completion rate has been improved in Grades 1-7³⁸ (IOB, 2008). Completion rates increased from the level that only one in three could complete Grade 7 in 2000 (IOB, 2008) to 90.4% (boys 89.6%, girls 90.9%) in 2010.³⁹ However, completion rate of Grade 9 was only 53.2% (boys 51.9%, girls 54.6%) because of the school fees needed over Grades 8 and the increase of repetition rates and dropout rates (MoE, 2010a).

³³ See Annex 4-21.

³⁴ There are those who became orphan because of reasons other than AIDS. But the proportion of orphans is very low under the condition not infected with HIV (World Bank, 2006, P.8).

³⁵ The reason for the low figure compared to Grade 8 and higher can be assumed that the schooling is free for Grades 1 to 7.

³⁶ See IOB (2008) pp.58-59 for details of IRI.

³⁷ Excluding internal efficiency and teacher policies.

³⁸ Completion rates are calculated by subtracting repeaters from the enrollment, then dividing it by the school age population.

³⁹ See Annex 4-22 and 4-23.

Completion rate in Grade 7 was over 80% in all provinces, of which Copperbelt province was the highest (100.4%) followed by Lusaka province (95.8%). There was a large regional gap in completion rate in Grade 9: Southern and Northern provinces were only 43.0% and 43.6% while the highest was 67.2% in Lusaka province. Female completion rate of Northern Province was 38.9%, and the value was lower than national completion rate of Grade 9 by 15% (MoE, 2010a).

(2) Performance of the National Examination

Under BESSIP, the government of Zambia started conducting a periodical National Assessment of Learning Achievement in order to improve learning outcome to match the increase of enrollment.⁴⁰ Looking at the trend of the national average scores of English and mathematics, the score was very low in 1999 (English 33.2, mathematics 34.3), but it gradually improved after the second assessment. The score was 35.3 in English and 39.3 in mathematics in 2008.⁴¹ The scores were lower than the preset bottom line score of 40 (MoE, 2008).

Of the national average by subject, life skills had the highest score of 40.2, followed by Zambian language (39.4) and mathematics (39.3) with the lowest 35.5 in English (MoE, 2008). The difference among provinces varied from year to year. The reason is not clear but can be assumed to be affected by the level of urbanization and types of school management in the area (IOB, 2008). Generally, the average subject scores were higher in urban area than in rural area. In addition, male results were higher than those of female in almost all subjects in both urban and rural areas (except the average of Zambian language score in urban area) (MoE, 2008).

In terms of the average score by school management type, private schools showed better scores and the scores of IRI center examinees exceeded those of public schools. There was little difference among public schools, GA schools and community schools (MoE, 2008).

(3) Performance of the International/Regional Assessment (SACMEQ)

The results of the regional research on the pupils' achievement by the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ)⁴² have been unsatisfactory. Zambia was 13th of 14 countries in reading and 12th in mathematics in SACMEQ II in 2000.

⁴⁰ ECZ has conducted the assessment for five times in 1999, 2001, 2003, 2006, and 2008 selecting 20 pupils in Grades 5 from 350-400 schools around the country. The subjects of the assessments are English, mathematics, Zambian language, and life skills (added from 2008) (MoE, 2008). This bi-annual assessment was scheduled for 2010, but not conducted due to the lack of preparation. It is scheduled again in 2012, but ECZ is uncertain considering the change of administration and insufficient budget (Interview with ECZ).

⁴¹ See Annex 4-24, 4-25 and 4-26.

⁴² Zambia has participated in the regional research on the pupils' achievement to monitor the quality of education conducted by SACMEQ from SACMEQ I. SACMEQ I (1996) had seven participant countries and tested reading ability. SACMEQ II had 14 African countries with new participants such as South Africa. SACMEQ III covered 15 countries. The latter two surveys tested Reading and Math abilities targeting Grade 6 pupils.

Both scores went way below the average 500 of 14 countries.⁴³ The result of SACMEQ III in 2007 was worse: Zambia was 14th of 15 countries in reading and 15th in mathematics overtaken by Malawi. In terms of comparison of gender, area and income groups in SACMEQ III, boys had higher score than girls in math. Urban area had higher score than rural area and high income group did better than low income group. The difference was particularly large in income group comparison (SACMEQ, 2010).

Table 4-1: SACMEQ III Average Scores by Gender, Area and Income Groups

	Gender		Area		Income group		Overall average
	Male	Female	Rural	Urban	Lowest 25%	Highest 25%	
Reading	437.1	431.5	423.6	454.2	418.8	483.4	434.4
Math	440.8	429.2	428.6	447.2	424.5	463.1	435.2

(Source: SACMEQ, 2010)

4.4.2 Learning Environment

(1) Pupils per Classroom

Classroom construction does not catch up with the rapidly increasing enrollment, and the number of pupils per classroom was far from the target 40 pupils per class of the government. In addition, the fund is not sufficient to cover the increasing enrollment, develop temporary facilities and rehabilitate old facilities (MoE, 2012a).

The education statistics of Zambia do not show the number of pupils per class. If calculated simply by dividing enrollment of primary education by the number of classrooms, pupils per class were 87.0 pupils in 2005, 91.3 in 2007 and 80.0 in 2010. The figures were still high but showed a slight improvement⁴⁴ (MoE, 2009 and 2010a).

The trend in 2007 and 2010 by provinces also shows general improvement except that in Luapula the figure was 108.5 which was extremely high and it was increasing⁴⁵ (MoE, 2007 and 2010a). It should be noted that the number of classrooms here includes temporary facilities and insufficient facilities in addition to permanent classrooms. The pupils per class can be calculated for school management types based on the education statistics. The figure was 90.9 for public schools, 86.3 for community schools, 53.8 for GA school, and 21.9 for private schools (MoE, 2010a).

It appears that Pupils per Classroom was lower in rural area than in urban area but in rural areas, 16% of the classrooms are temporary against 1.5% in urban areas (IOB, 2008). These figures

⁴³ See Annex 4-27.

⁴⁴ As there are double or triple shift schools, the national average Pupils per Classroom is 38.3 in Grades 1 to 4 and 37.1 in Grades 5 to 7 in reality (MoE, 2009).

⁴⁵ See Annex 4-28.

did not change significantly between 2002 and 2005. Community schools show more dramatic figures: the percentage of their temporary classrooms was 73% in rural areas and 25% in urban areas (IOB, 2008).

(2) Number of Schools Introducing Shift System

Many public and community schools have introduced the system of double and triple shifts for the lower Grades (1-4) (IOB, 2008). Though education statistics do not show the number of schools with the shift system, it could be estimated with the enrollment of Grades 1-4, pupils per teacher and pupils per classroom in 2009. The result shows that among the teachers who teach Grades 1-4, approximately 16,000 teachers (about 49.3% of the total) were teaching double shifts.⁴⁶ The actual figure is considered to be less because some teachers may have triple shifts.

The shift system made the contact time between teachers and children short. The teaching hours (plan) for Grades 1-4 were three and a half hours a day as shown in Table 4-2 (MoE, 2009). Because of the shift system, pupils per teacher for Grades 1-4 were large⁴⁷ (63.5 pupils in 2010) (MoE, 2010a). In terms of the learning outcome, the schools with double shift were generally worse than those without double shift (IOB, 2006).

The Education Sector Strategic Plan 2003-2007⁴⁸ claimed that at least 43% of teachers have to be in charge with double shift continuously to fill the lack of classrooms and teachers. Then, the negative effects of the shift system came to be recognized, and the NIFII stated the policy to gradually reduce double shifts in Grades 1-4 during the FNDP implementation stage (WB, 2006). However, NIF III (draft) said that the continued use of double shift cannot be avoided in order to cope with continually increasing enrollment with the limitation of available financial resources (MoE, 2012a).

(3) Teaching Hours

According to the education statistics in 2009, the average number of contact hours between teachers and children was 3.5-3.7 hours in Grades 1-4, 5.2 hours in Grades 5-7, 5.5 hours in Grades 8-9 and 5.8 hours over Grade 10 (Table 4-2). However, the figure was merely planned values based on the school schedule of MoE (MoE, 2009).

⁴⁶ It is assumed that teachers of Grade 1 to 4 teach either no shift or double shift and there is no triple shift teacher.

⁴⁷ 36.9 for Grades 5 to 7, 49.8 for Grades 1 to 7, and 36.8 for Grades 8 to 9.

⁴⁸ Education Sector Strategic Plan is a implementation plan of the National Development Plan of 2003-2007. Since 2008, NIF II was developed as the implementation plan (education sector plan) of the FNDP (JICA, 2010).

Table 4-2: Average Number of Contact Hours by Type of School Management and Grades (time/hours)

	Grade 1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
GRZ	3.5	3.5	3.6	3.6	5.2	5.3	5.3	5.4	5.4	5.5	5.6	5.6
GA	3.3	3.4	3.5	3.6	5.0	5.1	5.2	6.1	6.1	6.3	6.2	6.2
Community	3.2	3.2	3.3	3.4	4.5	4.7	4.8	5.5	5.8	7.7	7.7	7.5
Private	5.3	5.3	5.4	5.5	5.9	5.9	6.0	6.5	6.5	6.7	6.7	6.6
Average	3.5	3.5	3.6	3.7	5.1	5.2	5.2	5.5	5.5	5.9	5.8	5.8

(Source: MoE, Zambia Educational Statistical Bulletin 2009)

By school management type, community schools have the shortest contact hours for Grades 1 to 4, followed by GA schools and public schools. The difference of contact hours between public schools and private schools were larger in lower Grades and it was about 2 hours. Actual contact time seemed to be less than the figure Table 4-2 shows, as class may be cancelled for transition examinations, natural disaster and other reasons and affected by teacher absence due to leave, training, meetings, picking up salaries or solving administrative problems (IOB, 2008).

“Education Our Future (1996)” claimed the needs for improving the situation in the following. However, the current situation is still not sufficient as shown in Table 4-2.

In Zambia, schools are in operation for teaching for 190 days a year. This is the same as many other school systems offer, in developed and developing countries. Of great concern is the fact that only 3.5 hours a day are spent in classroom instruction in Grades 1 to 4. This means that, at best, pupils in these classes receive no more than 665 hours of active teaching each year. This is only about two-thirds of what pupils in other countries receive. The norm, for Africa and elsewhere, is about 5 hours of classroom work each day at the lower basic level.⁴⁹ The short teaching day clearly contributes to pupils' low levels of learning acquisition in reading, writing, numeracy, communication, and other areas.

4.4.3 Procurement and Distribution of Teaching Material

(1) Procurement and Distribution System

The Education Sector Strategic Plan 2003-2007 decided to promote decentralization of textbook procurement. The system of procurement and distribution of textbooks was changed from the former system in which MoE had all responsibility to a new system in which basic schools are provided with budget ceilings and DEBs purchase textbooks on the basis of orders from the schools (WB, 2006).

⁴⁹ “Educating Our Future” does not specify countries. According to the UNESCO International Bureau of Education (IBE) Databank (1996), the average weekly teaching hours of primary education in 1996 was 26.3 hours (5.3 hours/day) among 19 Sub-Saharan African countries including Angola, Ghana, and Tanzania (Zambia was not included).

In the system, publishers⁵⁰ supply books to booksellers who in turn obtain orders from schools and supply books as ordered. MoE Directorate of Standards and Curriculum supervises publishers and booksellers so that textbooks are distributed and properly and payment is made accordingly (WB, 2006). MoE and the Curriculum Development Center (CDC) ensure that textbooks are selected from the list approved by CDC. At the district level, they support and monitor schools to procure textbooks smoothly (IOB, 2008).

The new decentralized system was introduced in several phases, with only Grade 1 books were procured through the new system in 2004 and the second phase included Grades 2 and 5 in 2005. The amount allocated in Phase 2 was 18 billion ZMK which was less than the half of the estimated requirement. The budget for textbook procurement was financed by the Sector Pool Funds and a large number of textbooks continue to be procured through centralized procurement (WB, 2006). In reality, the funds did not reach provinces, and the new system was not fully functional in that schools did not obtain textbooks as needed (MoE, 2012a). The development of a textbook tracking system and a textbook database were a priority for MoE (WB, 2006).

The curriculum has been under revision, which includes the change of language of instruction for Grades 1-4 from English to local languages. The plan is to conduct a bid for publishers, contract with the selected company and start to produce the textbooks in local language as soon as the curriculum revision is finalized (Interview with CDC).

(2) Actual Situation of Distribution of Teaching Materials

MoE aimed to distribute one textbook per two children on each subject and this has been achieved for English textbooks. However, in mathematics the textbooks are not enough. The situation varies among schools but is generally worse in lower grades and community schools (IOB, 2008).

In 2009, in primary education, there were 0.45 English textbook per pupil; 0.39 mathematics textbooks; 0.21 books of life skills; and 0.27 books of Zambian languages. For secondary education, there were 0.91 books per student; 0.66 for mathematics; 0.22 for life skills, and 0.30 for Zambian languages.⁵¹ Life skills textbooks were insufficient; the ratios were one for 10 pupils in Central Province and one for 8 pupils in Lusaka and Eastern Provinces (MoE, 2009).

4.4.4 Definition of Academic Ability

The current curriculum framework places importance on the following three items among abilities that pupils should acquire during Grades 1-7 of primary education.

⁵⁰ In many cases, publication of Zambian textbooks are contracted to local entity of major publishers in developed countries such as Macmillan and Longman, as they have capacity for large scale printing with low cost (interview with CDC).

⁵¹ See Annex 4-30.

(1) Basic literacy and numeric ability

[Literacy Ability]

- Ability to read simple texts such as letters and news, books and messages in local language
- Ability to explain one's thinking, incidents and messages in sentences to be understood oneself by others
- Ability to communicate with other persons by reading and writing
- Know how to use computer

[Numeric Ability]

- Ability of understanding and using figures from 0 to 1 million
- Ability of four rules of arithmetic in the range of 0 to 1 million
- Ability of understanding and using correctively of fraction and rate (%)
- Ability to calculate and understand area and volume (amount) accurately
- Skill to use the ability mentioned above at daily life of home, housework and shopping

(2) Attainment of the life-skill, value and attitude to build the needed base at social life after graduation

- Create the foundation to form courage to open up opportunities by oneself, skill and willpower in front of the reality of constraint of job opportunities after graduation

(3) Formation of self-defense ability, value and attitude to live a healthy life and maintain surrounding environment

- Acquire the basic knowledge and measure to respond appropriately to 1) sexual transmitted infection like HIV/AIDS, 2) health, 3) nourishment and, 4) protection natural environment

4.4.5 Quality Assurance System of Education

(1) Promotion/Graduation System

Promotion of pupils/students from one grade to another within the same level (Grades 1-6, Grade 8 and Grades 10-11) is automatic. At the end of Grades 7 and 9, pupils/students have to sit the national examination to progress to the upper stage of education. Grade 7 students take PSLCE to enter lower secondary education from primary education and Grade 9 students take UBSLE to go to upper secondary education from lower secondary education. Successful pupils receive the certificate of primary and lower secondary education and they gain access to upper stage in order of their marks depending upon the maximum number of people the upper grades (schools) allow. The ECZ implements these examinations, publication of the results and confirmation of certification (UNESCO, 2010).

PSLCE covers five subjects (multiple choice test using mark sheet): English, social studies, mathematics, environmental studies/science and Zambian languages. In addition, pupils must

write two papers (UNESCO, 2010). Full marks are 330 points: 60 points are allocated to English, social studies and mathematics, and 50 points are allocated to environmental studies/science, Zambian languages and the papers. The highest four scores in the subject tests and scores for two papers are added up as the overall score. The average marks in 2005 and 2006 were 174 points (53%) (IOB, 2008). While in UBSLE, each student chooses and takes the tests of 9 or 10 subjects from 23 major subjects. The test has both multiple choice questions and writing style test (Interview with ECZ).

The government of Zambia defined 9 years of Grades 1-9 as minimum period of basic education children should take. The government has claimed its policy to abolish PSLCE through introducing a new policy to decide the transition (promotion) based on the academic assessment by the schools in 2010. Nevertheless, PSLCE was still conducted at the end of 2011 as before⁵² (Interview with ECZ).

(2) Situation of Implementing the Promotion/Graduation System

In 2001, 342,592 pupils (boys 179,829, girls 162,763), who completed Grade 7 had qualifications of candidacy for PSLCE, but 11.6% of the total were absent from the exam. The rate of absence was growing every year from 9.28% in 2008 and 9.75% in 2009. One of the reasons of absence was considered that the predetermined exam site was too far away to participate in. Pass rate of examination, or the rate on successful pupils to the total examinee, from Grade 7 to Grade 8 was 93.8% (boys 93.0%, girls 94.7%) in 2011 and 284,121 pupils (boys 179,829, girls 135,391) progressed to Grade 8. Pass rate has increased year by year from 50.4% in 2005 (ECZ document).

306,408 students (boys 160,372, girls 146,036) who completed Grade 8 registered for UBSLE in 2011, but 9.65% of them was absent from the exam. Students who could enter Grade 10 in 2011 was 124,331 (boys 68,068, girls 56,263) and pass rate from Grade 9 to Grade 10 was 44.9% (boys 46.7%, 42.9%). Pass rate had a trend to improve every year from 36.3% in 2005, but in 2011, the rate declined slightly from 46.8% in 2010 (ECZ document).

(3) School Inspector System

Directorate of Standards and Curriculum of MoE organizes inspection works to inspect each school and check performance of teachers in classrooms. In the head office of MoE, Chief Education Standards Officer is placed under the chief of the Directorate. They arrange and monitor inspection of schools at fixed intervals (MoE, 2007c).

In Provincial HQ, Provincial (Principal) Education Standards Officer is placed and they inspect the institutions under their responsibility such as high schools to see their compliance to the

⁵² At the time of the field survey of this study, no confirmation was obtained that the exam for Grade 7 was abolished in 2012.

standards. In DEB, District Education Standards Officer and Education Standard Officer are placed. The former inspects schools and learning centers at fixed intervals, implements monitoring and evaluation whether education services comply with the national standard in each institution and reports to District Education Standards Officer. District Education Standards Officer gathers the results of inspection and reports to Provincial (Principal) Education Standards Officer (MoE, 2007c).

Although Zambia has this kind of inspection system, there are many cases that standards officers in provinces and districts do not have necessary measures, such as vehicles and gasoline, for regular school inspection. A handbook or training is not provided for these inspectors. Inspections are based on a simple standardized format that does not provide any real insights (IOB, 2008).

4.4.6 Curriculum

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

With supervision of Directorate of Standards and Curriculum of MoE, the curriculum of Zambia is developed by CDC which belongs to the bureau (UNESCO, 2010). CDC is in charge of 1) developing and revising the curriculum and syllabus, 2) training stakeholders to understand and utilize the syllabus and 3) reviewing and revising teaching materials of pre-school education, primary education, lower secondary education, upper secondary education and teacher education (Interview with CDC in field survey).

There is an in-built consultative mechanism in the curriculum development process to reflect opinions and needs of stakeholders. The curriculum review begins with a national symposium, then specialist members discuss in the technical committees at workshops and the draft of syllabus is formulated. Then, the syllabus is counseled in the second symposium, examined by relevant institutions and various subject committees. Finally, each syllabus is approved by the appropriate curriculum committee (UNESCO, 2010).

(2) Capacity of Curriculum Development Agency

CDC consists of five units: natural science, language, social science, research/evaluation and unified service (special education, adult education and so on.) in which 40 specialists are placed. The CDC chief specialist of curriculum said that human resource is sufficient for curriculum development and revision, though the lack of facilities such as computer disturb document creation (Interview with CDC). In addition, their budget request tends to be ignored and therefore meetings with provincial and district level stakeholders have to be held in Lusaka rather than visiting the site which allows more interaction with various stakeholders (Interview with CDC). Textbooks in English are developed and printed by local affiliate companies of foreign publishers such as Macmillan. Though it is usually developed by adjusting preexisting textbook used in other countries to fit to the local context, the capacity of CDC seems to be

insufficient (Interview with CDC and UNICEF).

On the occasion of this curriculum revision, CDC receives technical support from UNICEF in integrating HIV prevention and malaria in life skills textbook. Also, through the program to improve reading capacity in primary education, CDC receives support in teacher training and textbook supply as part of dissemination of the curriculum in community schools (Interview with UNICEF and UNICEF HP).

(3) Trend of Curriculum Revision and Dissemination Structure

CDC has been carrying out the revision of the curriculum of primary education developed in 2000 and of secondary education developed in 1994. The purposes of revision include 1) showing guides and rules for schools related to regular education, college, vocational education institution and university; 2) defining basic value of education system and promoting to reflect the value for teachers' own experiences and local situation; and 3) providing guideline of the contents of curriculum, contact hours between teachers and students, unity of subjects and other important points related to revised curriculum (MoE, 2012b).

The main points of this revision were as follows.

- Teach Grades 1-4 in local languages
- Provide academic and technical paths after Grade 8
- Rearrange subjects; for example geography, history and ethics are integrated as social science
- Teach ICT skills in primary education and introduce classes using ICT in secondary education

(Interview with CDC)

Road map of this revision said that after revision, dissemination works will be implemented in the following sequence: 1) orientation on the new syllabus for relevant players in MoE; 2) orientation at the province level; 3) printing and distribution of the syllabus; 4) development and publication of teaching materials; and 5) implementation of the revised curriculum (MoE, 2010c). It is planned to introduce the new curriculum from the term starting in January 2014 (Interview with CDC).

4.4.7 Languages of Instruction

Since its independence, the medium of instruction in Zambia had been English from Grade 1 (MoE, 1996). However, pupils could not fully understand the subjects through English, as it is not used in daily life. This had led to low levels of learning achievement. Thus, "Educating Our Future" stipulated that though English remains to be the medium of instruction, introductory reading classes for lower grades are to be taught in Zambian languages and there is a need to introduce a class of Zambian languages from Grade 1.

The basic policy of the curriculum revision on this matter is as follows (MoE, 2012b):

- Learners in Pre-Schools and lower primary (Grades 1-4) will be given an opportunity to learn not only the initial basic skills of literacy and numeracy in a language of play but all knowledge, skills and values in the other learning areas.
- In Zambia, the seven (7) zonal languages; Cinyanja, Chitonga, Icibemba, Kiikaonde, Lunda, Luvale and Silozi as well as widely used community languages will be used for this purpose.
- It should also be noted that the use of a familiar language should be extended to learners with Special Educational Needs.
- English will still remain as the official medium of instruction beginning at Grade 5 up to tertiary.

4.5 Teachers

4.5.1 Teacher Qualification and Placement

(1) Number of Teachers

The number of teachers in primary education increased by 37% during 2000-2005, but the problem of insufficient teachers was worsened as enrollment increased by 58% (IOB, 2008). During 2005-2010, the number of teachers increased by 27%, which was not enough to fill the gap since enrollment also increased by 23%⁵³ (MoE, 2009 and 2010). The number of teachers in 2010 was 63,052 in primary education and 16,682 in secondary education (MoE, 2010a).

(2) Number of Pupils per Teacher (Geographical Distribution)

The NIF III sets the target pupil teacher ratio (PTR) at 40:1 by 2015 up to Grades 7. For Grades 8-9 and 10-12, the target ratio is 35:1 and 25:1 respectively. In 2010, the national average was 49.8, 36.8, and 21.7 per teacher.⁵⁴ The target is not reached at Grades 1-7. Moreover, Grades 1-4 was 63.5 per teacher due to double shifting. In terms of regional differences in grades 1-4, the Eastern province had the largest PTR of 79.8, followed by Luapula (78.4) and Northern (73.8) provinces (MoE, 2010a).

(3) Number of Teachers by Qualification

In Zambia, there are three types of teacher qualification, namely, Certificate Teachers to teach primary education (Grades 1-7), Diploma Level Teachers to teach junior secondary level (Grades 8-9), and Graduate Teachers to teach senior secondary level (Grades 10-12) (Interview with TESS). This will be changed so that a diploma is also required to teach at primary level and it will be called primary diploma, separate from secondary diploma for teaching junior secondary level (MoE, 2012a).

⁵³ See Annex 4-31 and 4-32.

⁵⁴ See Annex 4-33.

In basic education, teachers without qualification account for 7.8% of the total, while only 3,034 (18.2%) of all teachers teaching at secondary level have a qualification⁵⁵ (including the qualification for special needs education) (MoE, 2010a). Mathematics and science teachers at secondary school level who have diploma or degree qualifications are not enough. For example, at senior secondary school level, out of the 1,709 math teachers required, only 183 graduates of teacher colleges were available. The same was true for science. The certificate qualification tends to be seen lower than secondary qualifications, certificate teachers have low incentive to teach at primary school level and tend to consider moving up to secondary level (MoE, 2012a).

4.5.2 Teacher Education System

(1) Pre-service Training System

There are 14 Colleges of Education in Zambia. Of which, eight colleges train teachers for primary school level (Grades 1-7); five train teachers for secondary level (Grades 8-12); and two provide in-service training (INSET)⁵⁶ (Data provided by TESS). They are all managed at the central level (Interview with TESS). Two out of the eight colleges for primary school level also offer ECCDE training (MoE, 2012a). In addition, there are public and private universities and colleges such as the University of Zambia offer teacher training (MoE, 2012a). The capacity of public teacher colleges is to supply 2,500 graduates per year (data provided by TESS). The overview of the 14 colleges and university of Zambia is presented in Annex 4-36.

The new administration upgraded two out of 14 colleges to universities: namely Copperbelt and Nkrumah. To strengthen training of mathematics and science teachers, the Copperbelt College of Education has been earmarked for transformation into Mukuba University of Education specialised to train teachers of mathematics and science. Nkrumah University of Education will focus on training of teachers of social sciences and will transfer training of mathematics and sciences teachers to Mukuba University of Education (MoE, 2012a). To become certificate teachers to teach at primary schools, one must study at a college of education for three years, of which at least one school term (three months) of school experience is mandatory. Then, one receives the certificate to teach all subjects for grades 1 to 7 from the government. In order to become a diploma teacher, one must study for three years at an appropriate college and obtain diploma for a specialized subject. The diploma is awarded by the University of Zambia. To teach grades 10-12 at senior secondary school, one must study for four years and obtain degree for a specialized subject (Interview with TESS).

(2) Teacher Training Curriculum

The draft curriculum framework specifies Education Foundations and Teaching Courses for ECCDE, primary, junior secondary, senior secondary and special education. School experience

⁵⁵ See Annex 4-34 and 4-35.

⁵⁶ See Annex 4-36.

is regarded “a very important component of teacher preparation” for both primary and secondary teachers and is required for not less than one full school term (three months)⁵⁷(MoE, 2012b).

The ECCDE programme prepares teachers to teach children aged between 0 to 6 years in the ECCDE centres. The primary school teacher education course train teachers who will teach at Grades 1 to 7 in the primary schools. Students who successfully complete this course will graduate with a diploma or degree in the primary education.

The junior secondary teacher education course trains teachers to teach at Grades 8 and 9 in the junior schools. Students will graduate with a diploma or degree in the Junior Secondary Teacher Education. The secondary school teacher education course is an academic and professional course to be offered by university colleges or universities. The graduates will be awarded either Bachelor of Education or Bachelor of Arts/Science with education degrees and will be qualified to teach Grades 10 to 12. The special education curriculum provides basic special education to all student teachers. Zambia National Institute for Special Education and University of Zambia Special Education will offer specialized programmes in this area (MoE, 2012b).

(3) In-service Training System

Of the public colleges of education, two provide INSET, namely National In-service Training College (NISTCOL) and Zambia Institute for Special Education, which provides INSET for special education. MoE has created a Teacher Resource Centres, which are instrumental in the decentralisation of Continuing Professional Development (CPD) at the school level. CPD has been implemented through the establishment of a systematic cycle - the School Programme of In-service for the Term (SPRINT) and the establishment of in-service management structures at all levels (MoE, 2012a).

In reality, however, INSET is not implemented as planned. In 2011, for example, only 55% of the planed INSET was implemented due to the delayed release of the government budget (MoE, 2011). SPRINT is a school-based INSET. Under the basic principle; “it is teachers themselves who knows their professional needs most. It is school where teach training can be conducted most effectively,” SPRINT consists of activities such as “teacher group meeting,” “training at school by headteacher,” “Training of Trainers (ToT) and routine visit by supervisor,” and “zonal group meeting of teachers teaching same grades.” With support from coordinator and resource centres at the provincial, district and zone levels, INSET is provided through various group meetings led by headteachers (MoE, 2012a).

⁵⁷ See Annex 4-37.

4.5.3 Working Conditions for Teachers

(1) Teacher Salaries

Until 2003, the starting salary of primary teacher was below the national household poverty line. The salary has been raised gradually, and the average salary of primary teachers was 4.9 times more than GDP per capita in Zambia in 2004. According to a study in 2002, the primary teacher salary in 33 African countries averaged 4.4 times more than GDP per capita. Some African countries provide 6 times more than GDP per capita to primary teachers in order to maintain Universal Primary Education. This has been a huge burden on the finance of these countries. Though the study in 2002⁵⁸ states that the appropriate level of average primary teacher salary is 3.5 times more than GDP per capita, as a service delivery benchmark, it should be considered that Zambia is a landlocked country and has higher living cost compared to other coastal countries in Africa. There is no evidence to show whether current level of teacher salary is too high or low, there will be a need to cut teacher salary in the future (WB, 2006).

According to Director of TESS, MoE, the starting salary (base salary) of certificate teachers is 2 million ZMK, while it is 3 million ZMK for diploma teachers and 3.5 million ZMK for degree teachers. In addition to the base salary, there are allowances such as housing allowance in the case where there is no teacher's quarters, allowance for double shifting. NIF III maintains the policy to raise teacher salary with the same growth rate of GDP per capita.

(2) Conditions of Teacher Employment

Since many teachers prefer to teach at urban schools, the insufficiency of teachers in rural areas is critical even though remote allowance of 20% of the salary is provided (MoE, 2012a). The existence of accommodation for teachers is an important factor for teacher employment and their continuation. It is reported that even if a school is in a rural area, teachers would stay if a standard teachers quarters is provided (WB, 2006).

Many primary teachers move up to junior or senior secondary schools by obtaining higher qualification. Teachers at community schools have especially high rate of resignation as they are not formally employed and many are unpaid. In addition, there are also cases of death of teachers infected by HIV/AIDS (IOB, 2008).

The working condition of primary teachers is not necessarily good. It is one of the sector's problems that the number of teachers leaving the job is on the increase. For example, 9,735 teachers left the job in 2010.⁵⁹ The major reasons included resignation (2,066), retirement (858), and death (690) (MoE, 2010a).

Improvement of employment condition of teachers is on-going under the new administration in

⁵⁸ World Bank (2002) *Financing Education for All by 2015: Simulations for 33 African Countries*.

⁵⁹ See Annex 4-38.

that discussion with the teachers union is actively pursued on such issues as revision of the relevant rules (Interview with TESS).

4.5.4 Teacher Recruitment / Management

There is no recruitment exam for teachers. Upon graduating from a college of education, they are checked by the Teaching Service Commission (TSC) and employed by MoE as teachers. Teachers have the right to choose districts for placement, but may be placed in other districts which are without sufficient applicants (MoE, 2012a). Discharge is to be considered by TSC, but teachers are not discharged unless they commit a crime (Interview with TESS). In terms of recruitment of teachers, it is advertised at the central and district levels based on the information provided by the district. The system has several problems including that the advertisement procedure takes time at the district and central levels and that some college graduates remain on the waiting list because of the lack of coordination on the part of MoE (MoE, 2012a). NIF III states that the newly recruited teachers will be placed in schools in rural areas for the first two years so as to increasing teachers in rural areas.

On the other hand, headteachers are those who are promoted after working as teachers for a long time. There is no exam or training system to become headteachers. Indeed, many schools have problems in school management and supervision of teachers by headteachers, with high rate of absenteeism of teachers. In order to improve the situation of school management, trainings of headteachers are conducted in NISTCOL with USAID assistance (Interview with TESS).

CHAPTER 5: PUBLIC FINANCE AND ADMINISTRATION IN THE EDUCATION SECTOR

5.1 Public Administration

5.1.1 Decentralization in the Education Sector

The headquarters⁶⁰ of the MoE is located in Lusaka, the capital of Zambia; there are 9 Provincial Education Offices (PEO)⁶¹ at the provincial level and 72 DEBs at the district level. These bodies conduct central and regional educational administration.

As mentioned in previous chapters, textbooks for basic education are procured and distributed under the responsibility of DEB to respond to needs in schools. In addition, subsidies are given to schools at the basic education level from DEB under the Grants to Basic Schools scheme. Grants for Free Basic Education are also provided by the government to DEB to purchase and distribute stationery goods to schools (WB, 2006).

Although the above structure for decentralization has been introduced, NIF III claims that decentralization has not been progressed at desired levels as financial resources have not reached at regional offices as planned. For example, in 2010, a mere 14.5%⁶² of the overall educational budget was allocated to bank accounts of the DEB Secretary (DEBS), whereas 56% accounted for teaching staff salaries, 23.6% for infrastructure administered at the central level and 5.9 % for developing central administration. This means that budget allocated to the DEBS bank account mounted up to 33% of the budget not allocated to teaching staff salaries. Following policy guidelines of the new administration, the NIF III has outlined plans to further enhance decentralization. This plan was made given the fact that the MoE is still largely responsible for educational administration. The Ministry has failed to act in accordance with the guidelines set forth in the educational policy “Educating Our Future”. The policy claims that the role of the Ministry is to be responsible for enacting laws, developing policies, formulating national plans, procuring and allocating resources, developing curriculums, setting national standards and conducting monitoring and evaluation (MoE, 2012a).

The MoE is planning to set up Provincial Education Coordinating Committee (PECC) and Provincial Education Management Committee at the provincial level and District Education Coordinating Committee (DECC) and District Education Management Committee (DEMC), as organizations to support PEO and DEB responsible for regional education administration and monitor decentralization (MoE, 2012a).

⁶⁰ For the information on MoE and its responsible areas, see 3.6 Supervisory Authorities.

⁶¹ There is uncertainty about whether another office was built in the new province that was found following the regime change in September 2011.

⁶² As 10% of 14.5% has been allocated to tertiary education, the budget allocated to the district is considered to be less than 5% (Table 5-5).

5.1.2 Management Capacity of the Ministry of Education

This study has reviewed the management capacity of the MoE with reference to the Capacity Development Results Framework⁶³ (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,⁶⁴ 2) efficiency of policy instruments⁶⁵ and 3) effectiveness of organizational arrangements⁶⁶ (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 MoE 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 this study

⁶³ A framework created and adopted by the World Bank to design, enforce, monitor, manage and evaluate development programs and projects aimed at capacity development.

⁶⁴ 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).

⁶⁵ 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).

⁶⁶ This factor is composed of cooperation construction 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).

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 (Possible indices)	<ul style="list-style-type: none"> • Is the MoE showing commitment? • Are stakeholders able to participate in the process of formulating sector plans and policy related documents? • Is the MoE showing accountability? 	<ul style="list-style-type: none"> • Are the roles of each stakeholder in and outside the MoE clear? • Are plans such as the sector plan compatible with policies of higher order? • Are methods taken to prevent corruption? (Such as an adoption of a monitoring system) 	<ul style="list-style-type: none"> • Are goals in the sector plan achieved? • Are actions taken and budgets used in compliance with the sector plan? • Does the MoE possess enough coordination skills to coordinate with stakeholders?

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

Results of the review are as follows.

The MoE and its areas of responsibility are outlined in 3.6 Supervisory Authorities in Chapter 3. In the draft NIF III, the MoE claimed that it lacks efficiency and effectiveness of management skills and needs to build capacity in the following areas outlined in Table 5-2 in order to achieve the goals set forth in the NIF III.

Table 5-2: Areas where Capacity Development are Needed as claimed by MoE

- 1) Establish an effective mechanism for joint and unified sector planning, development and funding involving all stakeholders, the government, donors, the private sector and NGOs.
- 2) Through the Ministry's Medium-term Expenditure Framework (MTEF), continue re-orienting the sector budget, as reflected in the 'Yellow Book,' to the financing of core functions, and to work towards the integration of government budget resources and donor resources within a mutually-agreed MESVT programme of activities as defined in this NIF III and guided by the broader sector objectives of SNDP.
- 3) Strengthen the links between the sub-sector expenditure programme and the sector-wide MTEF.
- 4) Recognise the importance of consensus among all stakeholders through formal and informal consultation.
- 5) Establish transparent and efficient management support systems in financial management and accounting, procurements, information and reporting systems and infrastructure management.
- 6) Develop and/or strengthen mechanisms for measuring sector performance through the establishment of effective monitoring and evaluation systems that ensure timely interventions.
- 7) Strengthen institutional capacity to address cross-cutting issues such as gender and HIV and AIDS to ensure their effective mainstreaming into all education programmes.
- 8) Develop a mechanism for engaging with private sector and civil society in addressing equitable access to education at all levels.

(Source: MoE, 2012a)

With reference to the nine areas requiring capacity building mentioned above, the following is an outline of the relevance, efficiency and effectiveness of the MoE's management capacity. The results are based on the analysis of the basic education sector outlined in this report.

(1) Relevance

As NIF III is an implementation plan of SNDP, and as the Ministry is an organization established for policy development, formulating NIF III should be a top priority for the MoE. However, the MoE has not been highly committed to the formulation of NIF III (Interview with JICA, Ireland, UNICEF and USAID). For example, while the draft of the NIF III was expected to be outlined by its due date with the Ministry's Directorate of Planning and Information taking the lead, it has yet to be finalized or approved as of May 2012 (Interview with the JICA Zambia Office). In addition, framework construction workshops have been held and the draft has been made in response to requests from donors, which shows the commitment of the MoE to formulation of NIF III is not very high. Moreover, the draft was made without considering the opinions and insights of stakeholders such as schools and the community. As is mentioned in (2) of Table 5-1, this is a problem that needs to be solved (MoE, 2012a).

7) of Table 5-1 claims the need to construct a system for monitoring and evaluation. This brings to light the absence of a system to demonstrate accountability. Moreover, the mid-term review report of NIFII claimed that lack of accountability and service delivery of educational administration were considered to be the main factors of bad performance on certain indicators measuring quality of education. Thus, relevance of the Ministry's management capacity is considered to be low.

(2) Efficiency

Although positions and responsibilities of officers of MoE are stated in formal documents, human resources have not been allocated according to initial plans. Therefore, some key positions have been held by acting chief of bureaus and acting chief of divisions (Interview with the JICA Zambia Office). In addition, stakeholders have not comprehended their respective roles as progress has not been seen in decentralization (Interview with the Directorate of Planning and Information and principals of visited schools). Power has not been transferred to provinces and districts, though the roles of schools, provinces and districts have been documented (MoE, 2012a). Moreover, as is shown in 1) and 5) of Table 5-2, stakeholders have not been involved in the decentralization process and there is a need for more consensus building.

On the other hand, education sector plans and annual plans such as the NIF III and the Annual Work Plan and Budget (AWPB) are integrated and well conformed with policies of higher order as they were constructed with respect to national development plans, educational policies and the policy guidelines of the new administration.

Although information about corruption of educational administration agencies could not be obtained⁶⁷ through this study, the study found that a monitoring and evaluation system is yet to be implemented and central-regional financial flows still remain undercover (WB, 2007). In addition, as 6) of Table 5-2 refers to improvements in areas including financial management, accounting and procurement. MoE has failed to come up with enough countermeasures to fight corruption. From the above argument, the management capacity of MoE is considered to be inefficient.

(3) Effectiveness

Although targets have been achieved to enhance access, quality of education has not improved to meet the levels set forth in the NIF III and FNDP, as some indicators have shown downturns (MoE, 2011b).

In terms of financial management, 3), 4) and 6) of Table 5-1 point out MoE's lack of skill in planning, executing, and showing transparency. In addition, according to financial reports in 2011, while only 50% of allocated budget has been executed for teacher education as well as district educational development plans, and a mere 20% for curriculum development and topic-specified programs, more than 100% of budget has been executed for teacher salaries and equipment procurement (MoE, 2012a).

The study did not identify whether the MoE and stakeholders have built a mutually trusting relationship. On the other hand, relationships between the Ministry and its donors are not considered to be at its best, as the Netherlands and Denmark pulled out of the Sector Pool Fund and as there was a delay in finalizing the draft of NIF III. Therefore, MoE has also failed to show effectiveness of its management capacity, as there are many underlying problems.

5.2 Educational Finance

5.2.1 Budget of Education Sector

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

Budget for education sector increased steadily from 2.9% to 3.5% of GDP during 2006-2010. Education sector budget is the largest in total budget by sector (JICA, 2011). The proportion of the education sector in the national budget was 16.1% in 2006, declined to 15% in 2007 but kept increasing since then: 15.4% in 2008, 17.2% in 2009 and 19.9% in 2010 (MoE, 2012a).

The total education budget in 2010 was 3,733 billion ZMK and it was larger than the budget of FNDP (2,976 billion ZMK) by 757 billion ZMK. According to AWPB, education budget

⁶⁷ According to Transparency International (<http://cpi.transparency.org/cpi2011/>), Zambia marked 3.2 points in Corruption Perceptions Index, which ranks 91st out of 183 countries. This is the 12th highest of 53 countries in Africa, which is a relatively high score.

(government budget) in 2011 would be 3,571 billion ZMK and it accounts for 18.6% of the national budget. This shows a 22% increase from 2,922 billion ZMK in 2012, but the proportion in the total national budget declined by 1.3 points (MoE, 2011a).

(2) Budget by Sub Sector

Of the education budget of 2009 (based on AWPB), budget for primary education accounted for 58% of the total, 19% for secondary education, and 14% for higher education (Table 5-3). In 2010, the proportion of primary and secondary education increased slightly from that of 2009: 60% for primary education, 20% for secondary education, and 12% for higher education. The budget for ECCDE was less than 0.1% of the total in 2009 and 2010 (JICA, 2011).

Table 5-3: Education Sector Budget by Subsectors (2009 and 2010) (ZMK)

Sub-sector	Government Budget	Budget from Pool Funding Donors	Total	%
2009				
Early Childhood Care Development and Education	680,231,949	115,137,774	795,369,723	0.03%
Basic Education	1,470,905,983,868	147,375,240,076	1,618,281,223,944	58.26%
High School Education	383,915,843,965	151,606,257,492	535,522,101,457	19.28%
Tertiary Education	378,371,193,812	15,509,041,807	393,880,235,619	14.18%
Administration and Support	190,564,707,941	38,527,840,386	229,092,548,327	8.25%
Total	2,424,437,961,535	353,133,517,535	2,777,571,479,070	100.00%
2010				
Early Childhood Care Development and Education	80,231,949	115,137,774	195,369,723	0.01%
Basic Education	1,827,151,005,934	171,094,500,014	1,998,245,505,948	60.75%
High School Education	542,060,733,647	153,756,643,549	695,817,377,196	21.16%
Tertiary Education	398,324,784,206	12,490,408,286	410,815,192,492	12.49%
Administration and Support	154,475,123,140	29,573,981,377	184,049,104,517	5.60%
Total	2,922,091,878,876	367,030,671,000	3,289,122,549,876	100.00%

(Source: JICA, "Overview of the Education Sector in Zambia", June 2011 (the original budget shown in AWPB 2010))

Table 5-4 shows the education sector budget plan 2011-2015 presented in the draft NIF III. Budget of 2011 was 3,805 billion ZMK, then, it rises every year by 9-13%. 6,184 billion ZMK is said to be needed in 2015. The share of primary education is large, about 50%, in all five years followed by 30-35% for secondary education.

Table 5-4: Education Sector Budget Plan 2011-2015 (billion ZMK)

	2011	2012	2013	2014	2015
Primary Education	1,982	2,227	2,485	2,785	3,125
% of Total	52.1%	51.3%	48.3%	49.4%	50.5%
Secondary Education	1,198	1,417	1,902	2,018	2,147
% of Total	31.5%	32.7%	36.9%	35.8%	34.7%
Tertiary Education: Teacher Training	33	36	39	42	46
% of Total	0.9%	0.8%	0.8%	0.7%	0.7%
Tertiary Education: University	373	403	435	470	507
% of Total	9.8%	9.3%	8.4%	8.3%	8.2%
Management and Administration	78	81	85	89	94
% of Total	2.0%	1.9%	1.7%	1.6%	1.5%
Science and Vocational Training	141	172	203	234	265
% of Total	3.7%	4.0%	3.9%	4.1%	4.3%
Total	3,805	4,336	5,149	5,638	6,184
% of Total	100.0%	100.0%	100.0%	100.0%	100.0%

(Source: MoE, NIF III Draft, April 2012)

On details of recurrent budget of the above education sector budget, the share of primary education was the highest (about 66%) in all years. Secondary education was around 20% and higher education (university) was around 10%.⁶⁸ With development budget, the total amount for the five years is 6,642 billion ZMK (99.6 billion yen). Through this investment, the Zambian government intends to achieve the goals of MDGs and EFA.⁶⁹ In development budget, the proportion of secondary education is planned to be set over 70% each year and the share of primary education is expected to be reduced from 7.9% to 4% level (MoE, 2012a).

(3) Details of Education Budget

The largest share of education budget in 2010 was teacher salaries of 2,092 million ZMK (56.0% of the total) followed by infrastructure development of 880 million ZMK (23.6%) (Table 5-5). The actual budget implementation was over 100% in teacher salaries and infrastructure development, and the item called institutional management grossly exceeded budget implementing 172.7% of allocated budget (MoE, 2012a).

The least implemented budget items were program for equity (25% implemented), teacher education (34%) and curriculum assessment (44%). According to AWPB, budget excluding teacher salary increased by 18% from 829 billion ZMK in 2010 to 981 billion ZMK in 2011, and 444.2 billion ZMK of them will be used for construction of 31 basic schools and 37 high school 37 (MoE, 2011a).

⁶⁸ See Annex 5-1.

⁶⁹ See Annex 5-2.

Table 5-5: Details of Education Budget 2010 (000 ZMK)

Programme		Budget		Actual		% (Actual against Budget)
		Amount	% of total	Amount	% of Total	
Administration	Policy	27,778,571	0.7%	22,290,400	0.6%	80.2%
	HR & Administration	26,832,762	0.7%	27,918,105	0.8%	104.0%
	Financial Management & Audit	7,241,524	0.2%	6,313,115	0.2%	87.2%
	Procurement	6,343,961	0.2%	3,456,874	0.1%	54.5%
	Institutional Management	771,497	0.0%	1,332,167	0.0%	172.7%
	Grants and Other Payment	151,777,147	4.1%	76,084,449	2.2%	50.1%
Infrastructure Development	Infrastructure	880,171,433	23.6%	887,935,856	25.8%	100.9%
Equity	Special Issues	62,524,958	1.7%	15,551,020	0.5%	24.9%
Teacher Education	Teacher Education	17,466,946	0.5%	5,995,630	0.2%	34.3%
	Provincial/District Resource Center	301,750	0.0%	189,112	0.0%	62.7%
Distance Education & Open Learning	Distance Education	4,271,604	0.1%	2,531,944	0.1%	59.3%
Standards and Assessment	Standards	8,603,147	0.2%	4,841,850	0.1%	56.3%
Curriculum Development & Materials	Curriculum & Assessment	47,535,282	1.3%	21,065,896	0.6%	44.3%
	University	399,634,985	10.7%	262,100,913	7.6%	65.6%
Personal Emoluments	Personal Emoluments	2,092,540,140	56.0%	2,109,334,918	61.2%	100.8%
	Total	3,733,795,707	100.0%	3,446,942,249	100.0%	92.3%

(Source: MoE, NIF III Draft, April 2012)

According to AWPB 2011, the share of salaries in provincial budget was 91-96% in 2011 though it was only 52% in Southern province because the province has a smaller budget (98 billion ZMK) than others. Budget of Lusaka province was 159 million ZMK for planning, meetings and procurement of textbooks but do not include personnel salaries (MoE, 2011a).

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

During the implementation of BESSIP (1999-2002), 20-30% of education budget was financed by donor assistance. Budget of BESSIP for four years was 513 million US\$, of which about 30% was donor assistance (IOB, 2008). Education budget of the Zambian government has increased since 2003 and the share of donor assistance decreased from 26.0% in 2005 to 12-14% after 2006.⁷⁰ In addition, the decline of donor assistance may also be explained by the

⁷⁰ See Annex 5-3.

shift of European Commission, Norway and UK from the sector pool fund to general budget support (JICA, 2011). The share of donor assistance in 2010 was 9.8% (MoE, 2012a).

5.2.2 Flow and Administration of Funds Provided by Donors

Donor assistance in the education sector is provided based on a Memorandum of Understanding (MoU) to support NIF implementation. Table 5-6 shows four types of donor assistance in the education sector (WB, 2006).

Table 5-6: Modality of Assistance in the Education Sector (As of May 2012)

Modality	Donors	Overview
General Budget Support	UK, Norway, Finland, EU	General Budget Support not specified to the education sector.
Sector Pool Fund	Ireland, USAID	The financial support is transferred to a single account of MoE and managed by MoE based on AWPB.
Process Fund ⁷¹	Ireland	Each donor opens a bank account for MoE. The fund is utilized in specific projects agreed in NIF. The fund is managed by donors.
Project-type assistance	JICA, UNICEF, USAID	Project-type assistance controlled by donor-side.

(Source: JICA Human Development Department and JICA Zambia office)

The budgeting system of MoE consists of two components. One is financed by the Zambian government's own sources and the other is financed by donors through the AWPB process. The two components have their own budget structure and formulation process, which makes the whole system complicated. Donors rarely take part in the former budgeting process (detail is shown in the next section) (WB, 2006).

AWPB is prepared for i) policy and planning, ii) infrastructure development, iii) specific issues, iv) teacher education, v) standards and evaluation, vi) curriculum and assessment, vii) distance education, viii) universities, ix) human resources and general affairs, x) accounting and financial management, xi) procurement, and xii) institutional management, and shows budget for sub-sectors. AWPB is developed and approved through the coordination process between MoE and donors, and the Ministry of Finance and National Planning is not involved much (WB, 2006).

Donors froze the disbursement from the pool fund from October 2010 to late 2011 as there was

⁷¹ The structure is similar to Japanese grassroots grant/technical cooperation schemes. It is an independent fund specifically for the education sector (for both hard- and soft-type assistance). Though MoU defines it as one of the budget supports, it is not regarded as part of the sector pool fund. DPs contribute to this fund for various background reasons and in various ways. It is called "process fund" among the education sector stakeholders since Ireland, the lead donor, called financial support to the sector outside the common pool fund "process fund." Responses to the process fund vary among MoE and DPs depending on fund. Direct financial support to local NGOs is also seen as this category.

a concern over the financial management of MoE (Moore, 2012). Donors hired a consultant to conduct a “health check” of the progress of the first phase of the MoE financial management action plan twice with an interval of 6 months (Moore, 2012). The priority strategies in the action plan which are followed up by MoE includes development and standardization of a new modality of Targeted Budget Support, introduction of the single reporting which specifies donor finance in the financial reporting system by allocating a specific item code, unification of management system under the government, strengthening of the audit committee and IT development in MoE (Moore, 2012).

On the other hand, financing for the education sector development plan is not yet disbursed since drafting of the NIF III is delayed.

5.2.3 Management System of Education Budget / Public Expenditure

The government of Zambia formulates its budget through the MTEF process (WB, 2006). Of the two budget components of domestic and external funds, the budget covered by the government is formulated under the management of MOFNP (WB, 2006). The budget implementation is also managed by MOFNP who releases the budget quarterly within the ceiling approved by the parliament and based on the available domestic resources and priorities (WB, 2006).

Policy and Implementation Technical Committee (PITC) is an overall Joint Coordination Body between MoE and donors and coordinates Financial Technical Committee (FTC), Procurement Technical Committee (PTC), and monitoring and evaluation technical committee (JICA, 2011). PITC is chaired by Director of Planning and Information and advise the MoE top management on the implementation and monitoring of NIF (JICA, 2011). FTC is chaired by the chief accountant of MoE and makes recommendations to PITC in the area of financial management (JICA, 2011).

In terms of disbursement, it is not done based on project schedule. Rather, the budget is released on the basis of the first come, first served once project proposals for necessary activity and budget from responsible office or PEO/DEB (Interview with TESS and JICA STEPS⁷² Project). It is not properly monitored whether the budget reaches schools (Interview with Directorate of Planning and Information).

MoE monitors and reports the status of budget use semi-annually through semi-annual financial reports and annual reports based on reports from DEB and PEO (MoE, 2011b).

5.2.4 Distribution of Grants

As mentioned above, public schools and GA schools providing primary education receive

⁷² Strengthening Teacher’s Performance and Skills through School-based Continuing Professional Development Project

school grants from MoE through DEB. FBE grant for stationery for schools is provided to DEB (World Bank, 2006).

According to the school grants guidelines of MoE to schools, the allocation of school grants is defined in detail, for example 35% for textbooks, 25% for rehabilitation of school facilities, 35% for teaching materials and 5% for CSEN (WB, 2006). In reality, it seems that the grant amount sent from the central level is deducted at the levels of province and district for necessary expenditures, and schools receive the remaining amount. The amount distributed seems to be decided based on criteria such as enrollment, location and GPI (WB, 2006). According to the World Bank's public expenditure tracking survey, the school grant which reaches school is only 16,000 ZMK (about US\$ 4) on average where the MoE document states 26,700 ZMK (WB, 2008).

MoE has introduced rules and quality management procedure for community schools and required registration to community schools so that the government can support them. However, not all community schools have capacity to utilize these new systems and only parts of community schools receive government support (IOB, 2006).

5.2.5 Private Education Expenditure

Introduction of school grants in 2000 and the FBE policy for Grades 1-7 in 2002 drastically reduced the educational cost for parents. In 1993, the share of the private education expenditure born by parents was 44% of the total education expenditure, the other 50% was covered by the Zambian government and 6% was funded by donors. Thanks to the introduction of school grants, education expenditure was reduced by 66% in low income families and 19% in high income families according to a sampling research (IOB, 2008).

According to the headteacher of Chibombo Basic School visited in the field survey, parents of Grades 1-7 of the school pay about 160,000 ZMK (approximately 2,400 yen) per pupil a year to contribute to school management despite the FBE policy. If one has two or three children, one has to pay the amount for each child. Parents pay school fees over Grade 8. As for secondary education, public day schools cost 182,000ZMK (approximately 2,730yen) a year, public boarding school cost 580,000 ZMK (approximately 8,700yen), and the school fees of GA schools is a few more expensive.

Parents of secondary students (Grades 10-12) are thought to have paid at least about 30% of the cost related to education (WB, 2006). The unit cost for secondary education was 107US\$ equal to 22% of GDP per capita (486US\$) in 2004 (World Bank, 2006), and it means parents paid 32US\$ (approximately 153,000ZMK⁷³), or 30% of the cost.

⁷³ The exchange rate in 2004 was US\$ 1 = 4,779ZMK (World Bank, 2012).

5.2.6 Unit Cost Analysis

The Education Sector Strategic Plan conducts a unit cost analysis of Grade 1-7. The analysis claims that 85,556ZMK cost for teacher salary, 1,320ZMK for salaries for workers other than teachers, 7,657ZMK for teaching materials, 787ZMK for scholarship, 11,706ZMK for school management, 11,308ZMK for program implementation, 415ZMK for inspection, and 1,261ZMK for assessment, calculating the unit cost per pupil/student as 120,009ZMK in 2001. The figure was expected to increase up to 160,741 ZMK by 2007, 226,188 ZMK by 2012 and 284,969 ZMK by 2017 (MoE, 2003). Of the items, unit cost is highest for teacher salary, and cost for teaching materials (247%) and program implementation (155%) was expected to increase greatly during 2001-2007 (MoE, 2003).

5.2.7 Projection of Midterm Demand and Cost for Teachers

The draft NIF III estimates the demand for teachers based on projection of school age population, enrollment rate and target value of pupils per teacher ratio.

The Estimate is done assuming the double shift system would be abolished by 2015, and assumed the number of pupils per teacher as 40 in primary education, 35 for Grades 8-9, and 25 for Grades 10-12. On the basis of the above figures, the demand for additional teachers in 2015 would be 55,194 in Grades 1-7, 16,971 in Grades 8-9 and 21,474 in Grades 10-12. Considering the increase of enrollments in the future and the situation of teachers leaving the profession, 16,000 teachers should be newly employed by 2015 and 4,000 teachers need to be recruited every year through the period of NIF III implementation.

Given that 45 billion ZMK is added in the budget of 2009 to employ 5,000 new teachers (JICA, 2011), at least 36 billion ZMK of additional budget is needed to attain 4,000 new teachers per year.

CHAPTER 6: TRENDS IN DONOR ASSISTANCE

6.1 Structure of Donor Coordination

The Zambian government started to assess aid with its donors from 2003. In 2004, a MoU was signed for Wider Harmonization in Practice (WHIP) and the Zambian government and its donors reached an agreement to formulate the Joint Assistance Strategy for Zambia (JASZ)⁷⁴ (JICA, 2011). The JASZ was signed three years later in 2007 between the Zambian government and 16 donors (JICA, 2011).

In the education sector, the MoE and 11 Cooperating Partners (CPs)⁷⁵ including Japan signed a MoU based on the JASZ in May 2008. In addition, there is also a move led by the government for “Division of Labour” between the donors in accordance with the JASZ (JICA, 2011). As the Netherlands stopped aiding the Education and Skills Development Sector in 2011, Ireland and UNICEF have been the “lead,” while Japan has been the “active” donor (interview with UNICEF and the Irish Embassy).

The MoU signatory CPs gather for a Cooperating Partner Coordinating Committee Meeting (CPCC) once to twice a month, and the MoE and 6 CPs including the “lead” donors hold the Policy Implementation Technical Committee Meeting every month for policy dialogue (JICA, 2011).

6.2 Trends of Cooperation by Each Donor

6.2.1 Trends in Donor Assistance

In the MoU signed in 2008, both financial and technical aid was recognized as important aid modality. Given this, the situation has changed where financial aid was emphasized and project-type assistance was neglected previously.

While Denmark and the Netherlands declared that they would withdraw all assistance from Zambia by 2013 due to the change of their government policy, both countries pulled out from the education sector by the end of 2011, before finishing their respective withdrawal phases (Interview with the Irish Embassy). Given this, the Pool Fund for the education sector initially funded by the Netherlands, Ireland, Denmark and USAID shrunk in size with only two of the four donors left, though afterwards Japan decided to join the fund in the beginning of 2012. The UK and Norway shifted from aiding the education sector to general budget support, but the UK is said to be in preparation for returning to the education sector in coordination with the African Development Bank (Interview with the Irish Embassy). In addition, UNICEF supports the

⁷⁴ The framework was developed and signed in line with the Paris Declaration on aid effectiveness. Development of JASZII to cover SNDP (2011-2015) is currently underway.

⁷⁵ The term is used to mean “partner” in development process of the Zambian government together with provision of assistance, in contrast with “donor,” which implies only providing assistance.

Zambian government through the process funds in which they fund certain projects under the NIF and AWPB.

6.2.2 Volume and Contents of Assistance by Major Donors

The Netherlands, which withdrew from the education sector in 2011, had been funding as much as 36.9 million US\$ to the Pool Fund (MoE, 2012a). Combined with Denmark, which also withdrew in 2011, the fund lost equivalent of a total of 40 million US\$ in 2009 and 18million US\$ in 2010(MoE, 2012a). The draft NIF III claims the importance of finding new donors to support the sector.

In addition, the government was initially planning to receive financial support from the World Bank’s EFA-Fast Track Initiative (FTI). However, things have not turned out as planned and have not been able to receive the fund in the past year, as it failed to meet the application requirement of having the NIF III approved by the government prior to application (Interview with the Irish Embassy).

Table 6-1: Trend of Donor Contribution to Education SWAp (2006-2010) (million US\$)

	2006	2007	2008	2009	2010
Denmark	0.0	9.6	5.6	8.4	0.5
World Bank	0.0	0.0	0.0	30.1	0.0
Germany (KfW)	0.0	0.0	0.0	10.9	0.0
Ireland	7.1	15.5	22.1	20.1	14.5
Netherland	17.75	29.54	36.9	31.81	17.8
United States	1.3	1.0	0.0	1.0	0.0
UK	11.2	2.3	0.0	0.0	0.0
Norway	16.1	16.6	1.2	0.0	0.0
EU	0.0	3.1	1.3	0.0	0.0
Finland	4.9	7.1	0.2	0.0	0.0
Total	58.4	84.7	67.3	102.3	32.8

(Source: MoE, NIF III Draft)

Ireland, a donor of Zambia for 30 years, is planning to contribute 8 million Euros to the Pool Fund and 0.6 million Euros to support civil society, adding up to a total of 8.6 million Euros. 50% will be allocated to the education sector, with the rest planning to be distributed to alleviate problems in areas such as health, HIV, governance and water supply (Interview with the Irish Embassy).

Table 6-2 shows aid commitments of donors providing project based support. NGOs such as Campaign for Female Education and African Revival have supported community schools, and while not on the list, the World Food Programme has been conducting the School Feeding Program.

Table 6-2: Commitment of Non-Pool Fund Donors (2011)

Agency	US\$
JICA	600,000
Campaign for Female Education	4,634,929
African Revival	456,933
Forum of African Women Educationalists of Zambia	2,133,921
ILO	238,401
Restless Development	308,422
WOB	506,948
UNICEF	2,064,000
USAID (Projects)	100,000

(Source: JICA, "Overview of the Education Sector in Zambia," June 2011)

UNICEF has been supporting 1) pre-school education, 2) primary education and 3) post-primary life skills education. UNICEF is the only donor of pre-school education and has been testing the effectiveness of various models of ECCDE centres such as market-based, school-based and community-based models. It has also supported developing curriculums and standards in pre-school education. In addition, UNICEF supports primary education in community schools in 16 districts selected based on criteria such as the level of poverty and distant level. They have been implementing child-centered education and helping improve school administration. Life skills education is provided to students in grade 5 and higher. UNICEF helps students better understand subjects and themes not taught at school, including better decision making processes, critical thinking, HIV/AIDS prevention and ways to cope with alcohol and drugs.

USAID has been providing 1 million US\$ to the Pool Fund every year, which was funded after evaluating and examining achievement levels of milestones set against the education sector plan set by the MoE. Aid from USAID is focused mainly on developing the competence of the learner, with many projects centered on improving reading skills. In years 2012 to 2017, USAID is planning to conduct 5 projects, which are aimed at 1) developing reading skills in public primary schools in the Eastern and Northern provinces, 2) developing reading skills in community schools, 3) capacity development for decentralization (STEPS-UP Zambia), 4) water supply and sanitation improvement in the Northern provinces and 5) water supply and sanitation improvement in the Eastern and North Western provinces (SPLASH).

CHAPTER 7: RESULTS OF ANALYSIS

7.1 Top Priorities in the Basic Education Sector

The research and analysis conducted in the Study of Zambia 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 Zambia, 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 the basic education sector of Zambia, Table 7-1 compares Zambia 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).

Among the countries compared, Zambia ranked fourth in the primary NER after Rwanda, Malawi and Cameroon, while it also had the highest primary education completion rate out of 11 countries. In addition, while Zambia was close to average in some indices such as secondary GER and primary NIR, it ranked the third worst in terms of the PTR after Malawi and Rwanda.

Table 7-1: Comparison of Education Indices of Zambia and 10 Neighboring Countries (2010)

	Primary NER	Secondary GER	Primary NIR	Primary Repetition rate	Primary Completion rate	Primary PTR	Education Sector Expenditure (% of Government Expenditure)
Zambia ^{*1}	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}
Rwanda	98.7	32.2	86.4	13.8	69.6	64.6	18.2
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 The numbers correspond to data from the 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 figure under the education sector expenditure to government expenditure ratio for Zambia corresponds to the education sector budget to general budget ratio.

*3 World Bank, 2009.

*4 World Bank, 2007.

From Table 7-1, it can be said that Zambia provides better access to primary education and has better results on completion/repetition rates than many of its neighboring countries. However, the pupil teacher ratio was unsatisfactory and there was less access to secondary education. In addition, the learning achievement is at low levels considering that Zambia had one of the lowest scores in the SACMEQ survey, and the average score in Math and English in the National Assessment Survey of Learning Achievement failed to reach goals set at the minimum.

Table 7-2 compares benchmark indices of the FTI Indicative Framework and educational indices from this study to examine Zambia's performance in the education sector compared to countries that have shown positive performance en route to achieving EFA.

Zambia scored high on indices 1 and 2 regarding input. In addition, although NIR only reached half of the targeted number, Table 7-2 showed that this number was about the average of its neighboring countries. Indices regarding learning achievement (completion rate) scored numbers close to its initial target, while positive numbers were seen in repetition rate, which is an index of internal efficiency. However, other indices such as PTR, the percentage of non-salaries spending in the recurrent education spending and annual hours of instruction were sufficiently lower than other surveyed countries.

Table 7-2: Comparison of EFA-FTI Indicative Framework Indices

Index	Average of countries showing positive performance in achieving EFA	Zambia (National Figure)
1. Percentage of the government revenue allocated to the education sector	20%	19.9% (2010)
2. Percentage of education sector budget allocated to basic education	42 - 62%	58.26% (2010)
3. Intake Rates	100%	Gross intake rate 121.3% (2010) Net intake rate 53.7% (2010)
4. Primary education completion rate	100%	90.4%
5. Primary education repetition rate	Less than 10%	5.97% (2010)
6. Pupil teacher ratio in public schools	40: 1	49.8 : 1 (2010) ^{*1}
7. Percentage of non-salaries spending in the recurrent education spending	33%	9.5% (2010)
8. Annual hours of instruction	850 - 1000 hours	665 hours ^{*2}

(Source: WB, 2004 and MoE, 2010a)

Notes: *1: As the data for community schools were not found, the table shows the number for public schools, private schools and community schools combined. It is estimated that there are approximately 50 students per teacher in public schools, as the learning environment is most likely better in private schools.

*2: As the data for annual hours of instruction was not found, these numbers represent the case of 3.5 hours of daily instruction and 190 school days per year (MoE, 1996). However, actual numbers are predicted to be lower (IOB, 2008).

7.2 Factor Analysis of Top Priorities

As mentioned earlier, when comparing the educational indices to those of other Sub-Saharan

countries as well as the EFA-FTI Indicative Framework, secondary education (Grades 10 to 12) GER was relatively low, PTR in basic education was high, annual hours of instruction were insufficient and percentage of non-salaries spending in the recurrent education spending was high. These are the problems that need to be dealt with in top priority.

Taking equality into consideration, other topics of high priority not evident in national average figures include a large difference in numbers seen in the transition rates to Grade 8 for different provinces, and a large gap in repetition rates for students up to Grade 9 depending on the student's residing province and gender.

Below is a factor analysis of these problems.

(1) Low GER in Secondary Education

Looking at basic education, which is what builds the ground for secondary education, many public and community schools do not cover Grades 6 or 8 and higher. With this environment, it is difficult to complete basic education of nine years. Therefore, promotion rate for Grades 6 and higher and completion rates for Grade 9 remain low (MoE, 2010a).

The insufficient number of secondary schools was also a factor that leads to students not being able to enroll in secondary education even after passing their transition exam in Grade 9. Low investment standards in secondary education since 2002, which were sufficiently lower than investment dedicated to basic education, are one of the main factors for the lack of secondary schools (MoE, 2012a).

Taking a view at some of the socioeconomic factors, many households cannot afford to send their children out to school once children reach Grade 8 and education is no longer free. The large number of orphans is also a factor of low enrollment rates, as they are more prone to dropping out of school before Grade 9 than students with parents. In addition, these students are often impoverished and malnourished, and are also mentally unhealthy as they do not experience the encouragement and support from parents (IOB, 2008).

Enrollment rates in secondary education were lower for girls than boys, as many of them dropped out due to marriage or because they became pregnant (IOB, 2008). Some communities also neglected sending girls out to schools located far from their home.

In addition, there is a strong correlation between dropout rates and repetition rates. In many cases, teachers, parents and guardians force students to stay in school by failing certain grades so that they do not need to dropout. This is seen more in boys than girls, as girls are often forced to drop out. Therefore, girls have lower repetition rates than boys, whereas dropout rates are higher for girls. In view of this, there is a higher possibility for girls to drop out of school before grade 9, which prevents them from receiving secondary education (IOB, 2008).

(2) High Pupil Teacher Ratio

In addition, high pupil teacher ratio was caused due to a lack of teachers compared to the number of pupils at the basic education level, which has been increasing dramatically. High pupil teacher ratio was also caused by teachers working under a double or triple shift system in order to avoid too much congestion in classrooms under the condition of insufficient number of classrooms and teacher training (IOB, 2008).

Lack of teachers is a severe problem especially in rural districts as many teachers are reluctant to work in an environment inconvenient for access, where there is no accommodation for teachers and living conditions are bad. In many cases, teachers quit soon after working for some time in rural areas (IOB, 2008).

To compensate for the lack of teachers, colleges of education have been reinforced. However, such programs have failed to meet the needs of schools. In addition, a sufficient number of teachers quit teaching in primary education as their salaries are not as high compared to teachers that teach secondary education. This is another factor that has been preventing an increase in the number of teachers (MoE, 2012a).

As is stated in Chapter 5, if the government were to employ teachers to meet the needs of schools, they would need to spend another 36 billion ZMK to hire 4,000 teachers every year (MoE, 2012a). Allocating more budgets to salaries seems to be a difficult task for the government as it already accounts for more than 90% of the recurrent budget in the sector.

The status quo explained above has to do with the lack of management capacity of the MoE, including their inability to analyze comprehensively and construct a realistic plan regarding the increasing trend of enrollment, the capacity of teacher training system, and the necessary amount of budget for salaries and developing the education sector.

(3) Insufficient Instruction Time

As mentioned in previous chapters, public and community schools have been adopting a double/triple shift system whereby one teacher is responsible for teaching multiple classes. Although it was initially a temporary attempt, the system has continued despite the lack of an effective teaching method in shift system or improvement of textbooks (IOB, 2008).

While the shift system is said to be the major cause of insufficient instruction time, instruction time also decreases in times of school events and transition tests, and when teachers are frequently absent receiving training or taking holidays (absenteeism) (IOB, 2008). Head teachers are also not skilled in managing schools and teaching staff, which is also a factor.

Although the government has been announcing that it is seeking to abolish the shift system, there is no statistical data that measures how and where the system is being conducted (MoE, 2010a). Research to investigate the system has not been held either. Rather than seeking the

factors causing this situation in the number of teaching staff and classrooms, the more realistic approach needs to be considered such as ways to improve the situation by amending teaching methods suitable to the shift system and improve teaching materials. In addition, improving the working environment of teaching staff is also a realistic way of improving the current situation.

(4) Teacher Salaries amounting to a High Proportion of the Recurrent Budget

Although the overall budget is increasing, it is difficult to lower the percentage of the overall budget allocated to teaching staff salaries, as there is also a need to increase the number of teaching staff. Another factor that has been preventing this problem from being mended is the fact that teachers in Zambia are paid 4.9 times the per capita GDP, which is higher than the average salary of teachers in other African countries. This problem has been creating obstacles in solving many other problems in the education sector.

(5) Regional Gap in the Transition Rates to Grade 8 and Regional and Gender Gaps in Repetition Rates for Students up to Grade 9

As mentioned in 4.3 Equality, transition rates to Grade 8 differ greatly among provinces. Rates are high in Copperbelt Province, Central Province and Luapula Province. On the other hand, rates are low in Eastern Province, Lusaka Province and Northern Province. In addition, repetition rates for students up to Grade 9 are relatively low in Eastern Province and Northern Province at approximately 20%, whereas gender gaps were seen in North-Western Province, Southern Province, Northern Province and Western Province (MoE, 2010a).

Turning to the socioeconomic factors, while there is a railroad and a highway connecting Copperbelt Province and Central Province, Lusaka Province and Southern Province, the remaining 5 provinces are not as developed economically and do not provide as much social services to the public (WB, 2010). Moreover, Northern Province, Eastern Province and Western Province have higher poverty rates (Table 2-1). This is also considered to be the reason for low transition rate to Grade 8, which requires school fee, in these provinces. In addition, communities are thought to be spread out and schools located in the distance and thus keeping transition rate low in North-Western Province, Western Province and Northern Province as these provinces possess a massive landscape and has a small population density of 6 to 12 people per square kilometer. One of the possible factors that have been causing a low transition rate in Lusaka Province is severe competition due to the large population (MoE, 2010a).

In addition, a large number of girls in North-Western Province, Southern Province and Western Province became pregnant during their basic education period. On the other hand, orphans account for the largest portion of enrolled students in Lusaka Province followed by North-Western Province. High pupil teacher ratio in Eastern, Luapula and Northern provinces (MoE, 2010) is also considered to be a factor of this gap, as it is related to the quality of education and result of the transition exam.

As this study did not analyze socioeconomic factors and traditional cultures, it is difficult to analyze causal relationships to a greater extent.

7.3 Priorities of Zambia's Education Policy

The manifesto of the new government and NIF III has claimed to put increased effort in improving the quality of education, with the following basic strategies.

- (1) Developing pre-school education
- (2) Providing education facilities and developing human resources
- (3) Free education in Grades 1 through 12
- (4) Developing community schools as primary and secondary schools similar to public schools
- (5) Changing the language of instruction in Grades 1-4 from English to local languages
- (6) Abolition of the double shift system
- (7) Improving labor conditions for teachers and increasing the number of teachers
- (8) Promoting decentralization

(2), (6), and (7) underlined above would lead to raising enrollment rates in secondary education, reducing pupil teacher ratios and increase of instruction time, if implemented. However, there has not been any mention in the NIF III of a realistic method to abolish the shift system or to respond to ever growing teacher salaries in the current situation where the sector pool funds are constantly decreasing. In addition, it is not clear how the government will modify inequality between gender and between provinces even though the PF manifesto and NIF III prioritize equity in education.

As was mentioned in earlier sections, if abolishing the shift system does not seem realistic, the government should start considering ways to improve textbooks and teaching methods under the shift system by referring to other cases in and outside the country. In addition, in relation to school management, attendance management of teaching staff and school monitoring, USAID has started providing technical support in school management by conducting training to principals. Although not much budget is required to support, aid in these areas is expected to produce many positive results.

7.4 Challenges and Necessary Considerations

The study has given rise to the following challenges and points for consideration when conducting an analysis of the basic education sector.

- (1) Difficulty of Estimating School Age Population

Although a Population Census was conducted in 2010, data regarding population of the school age group could not be found, as the preliminary report did not include these numbers. The MoE also seemed to be struggling to find these numbers as well as its growth rate and the general

population data, despite their importance in constructing statistics on the education sector.

(2) Inaccuracy of Statistical Data

Although statistical data on the education sector has been released every year, reports were not made or published in 2009 and 2010 despite data being collected and available in the Education Management Information System database.

In addition, GER were reported to be higher than 100% in 2009 and 2010 as estimated school-age population was lower than actual numbers. Factors such as errors in data entry also created inconsistency in statistical data.

(3) Usability of Data Obtained from Interviews

During the course of the field survey, interviews were conducted to certain departments in the MoE. However, bureau chiefs were not aware of detailed information. Their statements often did not reflect reality, and they would only provide information which fell in line with the intentions of the central government. On the other hand, the information provided by staff responsible for each field was not representative of MoE, and also included many opinions of each individual. Therefore, it was difficult to obtain usable data from these interviews.

(4) Unbalanced Information

There was a sufficient amount of data for certain survey items such as the number of enrolled students, the number of schools, repetition rates and dropout rates, which could be obtained from educational statistics and reports. However, despite their importance in comprehending the underlying structural problems of the education sector, there was a lack of information about the curriculum, teacher training programs, educational administration and public finance and capacity of the government. Past reports were full of general information, and there were not many reports which included a specified analysis of these topics. As researches have been conducted on capacity in some countries, it may be effective to refer to methods and perspectives from these studies.

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
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
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
		8-2	Analysis of learning environment	Performance of international student ability assessment such as PISA, SACMEQ etc.
				Pupils per class by region
				Pupils per class by group
				Number of schools introducing shift system
		8-3	Procurement and distribution system of teaching material	Teaching hours
				Analysis on procurement system of teaching material
		8-4	Definition of academic ability	Efficiency of distribution system of teaching material
				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		Activities
1	19-Mar	Mon	Departure from Narita (SQ0637)
2	20-Mar	Tue	Arrival in Johannesburg (SQ0478) Arrival in Lusaka 12:30am (SA0062) Meeting with Dr. Chileshe, JICA In-house Senior Education Consultant and Dr. Banda, Local Consultant of the Basic Education Sector Study
3	21-Mar	Wed	Information gathering/questionnaire preparation with Dr. Banda
4	22-Mar	Thu	9:00 Meeting with Curriculum Specialist, CDC 11:00 Meeting with Acting Director and Research of Examination Council pm Courtesy call to JICA STEPs Project Office
5	23-Mar	Fri	9:00 Meeting with Director of TESS (mainly for PRS Grant) and Dr. Chileshe pm Information gathering from MoFNP and JICA Zambia Office
6	24-Mar	Sat	Preparation of meeting memo and data analysis
7	25-Mar	Sun	Preparation of meeting memo and data analysis
8	26-Mar	Mon	am Information gathering and data analysis 14:30 Meeting with Director of TESS
9	27-Mar	Tue	9:00 Meeting with Directorate of Planning and Information 14:00 Meeting with Irish Embassy 16:00 Meeting with USAID
10	28-Mar	Wed	8:30 Meeting with Dr. Chileshe at JICA Zambia Office 14:30 Meeting with UNICEF
11	29-Mar	Thu	Information gathering through visiting STEPS Field Activity (Open Class by a math teacher from Hiroshima) Interview with HT of Chibombo Basic School
12	30-Mar	Fri	am Wrap-up with Dr. Banda 12:00 Meeting with WFP 15:00 Reporting to JICA Zambia Office
13	31-Mar	Sat	9:00 Departure from Lusaka (SA8161) Arrival in Singapore (SQ0479)
14	1-Apr	Sun	Arrival in Narita (SQ0012)

III. Collected Data

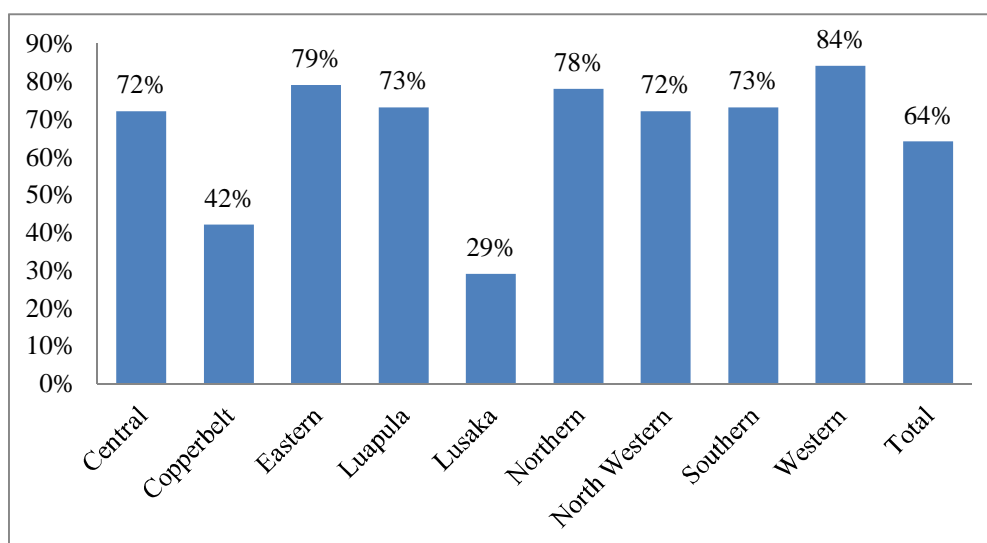
Chapter 2

2-1 Population, Area Size and Population Density by Province (2002 and 2010)

Province	2000 (persons)	2010 (persons)	Area Size (Km ²)	Population (persons per Km ²)	Inter-Censal Growth Rate 2000-2010 (%)
Central	1,012,257	1,267,803	94,394	13	2.3
Copperbelt	1,581,221	1,958,623	31,328	63	2.2
Eastern	1,306,173	1,707,731	69,106	25	2.7
Luapula	775,353	958,976	50,567	19	2.1
Lusaka	1,391,329	2,198,996	21,896	100	4.7
Northern	1,258,696	1,759,600	147,826	12	3.4
North Western	583,350	706,462	125,826	6	1.9
Southern	1,212,124	1,606,793	85,283	19	2.9
Western	765,088	881,524	126,386	7	1.4
Total	9,885,591	13,046,508	752,612	17	2.8

(Source: Central Statistics Office, 2010 Census of Population and Housing, Preliminary Results)

2-2 Poverty Level by Province (Population living below poverty line)



(Source: Government of Zambia, 2011)

2-3 Progress of MDGs Achievement in Zambia (Goals 1 to 3)

Goal	Target	Indicators	Data 2006	Target Value 2015	Current Status of Achievement
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	51%	29%	Significant reforms and investments needed
		Poverty gap ratio	34%	31.1%	Almost Achieved
	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	14.6%	12.5%	More Strengthening required
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	102%	100%	Almost Achieved
		Proportion of pupils starting grade 1 who reach last grade of primary	91.7%	100%	More Strengthening required
		Literacy rate of 15-24 year-olds, women and men	70%	100%	More Strengthening required
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	0.96	1	Almost Achieved
		Ratios of girls to boys in secondary education	0.88	1	More Strengthening required
		Ratios of girls to boys in tertiary education	0.74	1	More Strengthening required
		Ratios of girls to boys in literacy rate of 15-24 year-olds	0.8	1	More Strengthening required
		Share of women in wage employment in the non-agricultural sector	0.34	-	-
		Proportion of seats held by women in national parliament	14	30	Significant reforms and investments needed

(Source: Government of Zambia and UNDP, 2011)

Chapter 3

3-1 Educational Goals of SNDP

	Baseline Value 2009	Target Value 2015
Net Enrollment Rate		
a) Grades 1-7	103.6%	100%
b) Grades 8-9	30.06%	45%
c) Grades 10-12	27%	36%
Completion Rate		
a) Grade 7	91.70%	100%
b) Grade 9	51.98%	67%
c) Grade 12	19.47%	37%
Pupil Teacher Ratio		
a) Grades 1-4	57.2	40
b) Grades 5-7	52.1	40
c) Grades 8-9	28.2	35
d) Grades 10-12	24.9	25

(Source: GRZ, 2010)

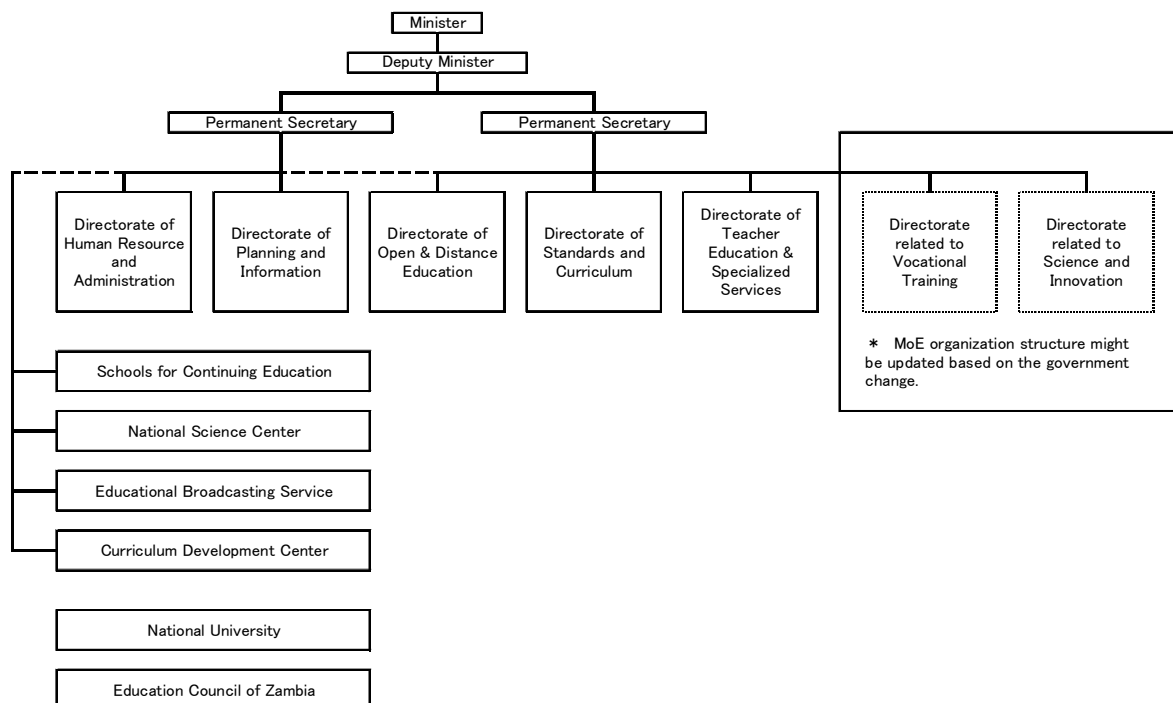
3-2 The Basic Policy for Education Development in “Patriotic Front 2011 – 2016 Manifesto”

- (1) Re-introduce free and compulsory education for all (that is from grade 1 to grade 12), taking care to control the “unofficial” fee collections that have proliferated under the MMD’s version of free education;
- (2) Provide adequate budgetary allocation on education to make free education a reality and further to cater for an appropriate expansion and up-grading of infrastructure and teaching resources;
- (3) Upgrade all primary schools providing grades 1 to 4 to full primary schools (i.e., grade 1 to grade 7);
- (4) Upgrade community schools to fully fledged primary and secondary schools;
- (5) Review the language of instruction policy so as to promote the teaching of local languages at primary level;
- (6) Phase out basic education and re-introduce a conventional early childhood, primary, secondary and tertiary education system;
- (7) Open two paths for grade eight pupils based on their grade seven performance to follow up to grade twelve. One will be for learners who will follow an academic path and the other for learners who will follow a technical path;
- (8) Re-orient the curriculum for primary and secondary schools to put emphasis on life skills subjects to enable learners cope with the demands of self-employment and the labour market;
- (9) Upgrade non-degree or diploma holders through sponsored in-service training (reintroduce the apprenticeship system);

- (10) Promote inclusive education by integrating children with mild to moderate learning disabilities in the mainstream schools and offer special education to those who cannot be integrated;
- (11) Rehabilitate existing houses and construct decent institutional houses for teachers in rural schools;
- (12) Encourage churches/missions to establish more learning institutions;
- (13) Enhance the monitoring of education standards in both public and private schools through a professional inspectorate;
- (14) Ensure that the emoluments of teachers are attractive and regionally competitive in order to retain our teachers and stem the brain drain;
- (15) Increase rural hardship allowance, double class allowance, extra duty allowance and other incentives for teachers and ensure timely payment of the said allowances on a monthly basis;
- (16) Provide government guaranteed mortgages or loans to enable teachers build or buy houses in areas of their choice; and
- (17) Review the Education Act of 1966 in order to harmonize it with the current demands in the education sector.

(Source: PF, 2011)

3-3 Organization Structure of MESVT



Note: The new organization structure is not decided (such as placement of vocational training and science technology).

(Source: Interview with Director of Planning and Information)

3-4 Tasks and Responsibilities of MESVT Directorates

	Programme / sub-programme	Principal Responsibility
1.	Curriculum Development and Educational Materials	Directorate of Standards and Curriculum
	- Curriculum Development - Education materials	- Curriculum Development Centre - Curriculum Development Centre- - Education Boards at High School, College & District levels - Basic Schools
2.	Standards and Assessment	Directorate of Standards and Curriculum
	- Standards - Assessment	- Standards sections at HQ, Province and District levels - Examinations Council of Zambia - Universities, Colleges and all High and Basic Schools
3.	Teacher Education	Directorate of Teacher Education and Specialized Services
	- Initial Teacher Training	- Colleges of Education - Directorate of TESS - Universities
	- Continuous Professional Development	- Universities, Colleges and all High and Basic Schools - Teacher Resource Centres
	- Specialized Services	- Specialised Education Services Section - Universities, Colleges and all High and Basic Schools
4.	Infrastructure Development	Directorate of Planning and Information
	- Construction	- School Infrastructure Section at all levels of operation
	- Rehabilitation	
	- Maintenance	
5.	Distance Education and Open Learning	Directorate of Distance Education and Open Learning
	- Distance Learning	- Distance and Open Learning sections at all levels - Universities and Colleges
	- Open Learning	- Distance and Open Learning sections at all levels - Universities and Colleges
	- Skills Training	- Distance and Open Learning sections at all levels - Universities and Colleges
6.	Equity	Directorate of Human Resource and Administration; and Teacher Education & Specialised Services
	- Equity and Gender	- Planning and Information - Provinces - Education Boards at District, School and College levels
	- School Health and Nutrition	- Planning and Information - Provinces - Education Boards at District, School and College levels
	- Bursary Support	- Equity and Gender Section at HQ - Province and Districts
	- Special Education Needs	- Teacher Education & Specialised Services at HQ, Province and District - Universities, Colleges and all High and Basic Schools
	- HIV/AIDS	- Human Resource / Administration
7.	Policy and Planning	Directorate of Planning and Information
	- Policy, Planning and Research	Policy, Planning and Research Unit
	- Integrated Information Management	EMIS
	- Budget Preparation, Monitoring and Projects coordination	Budgets and Projects Section
	- Decentralization	Education Board Services
	- Support to University Students	- Bursaries Committee - Universities

	Programme / sub-programme	Principal Responsibility
8.	Human Resource	Directorate of Human Resource and Administration at Headquarters, Province and District levels
	Policy and Management	HR Management Section
	- Capacity Building and Development	HR Development Section
	- Recruitment and Deployment	Administration Section at Hq, Province and District
	- Records Management	Records and Stores Section at all levels
9.	Procurement	Ministry of Education Procurement and Supplies Unit (MEPSU)
	- Procurement of Goods and Services	MEPSU
	- Administration, Capacity Building and Monitoring	MEPSU
10.	Institutional Management	Permanent Secretary
	- Strategic Management	
	- Institutional Development	
	- Support to Institutions	
11.	Financial Management, Accounts and Audit	Main Accounts and Audit Section at all operational levels
	- Financial Management	Main Accounts
	- Internal Audit	Audit Section
	Administration, capacity building and Monitoring	--
12.	University Education	University of Zambia Copperbelt University Mulungushi University
	- Institutional Capacity Building	
	- Multi-sectoral Sponsorship of Research and Development	
	- Sponsorship of Educational Research and Development	
	- Graduate Training and Staff Development	

(Source: MoE, 2012a)

Chapter 4

4-1 Trend of School Age Population (2000-2010)

	2000	2001	2002	2003	2004	2005
School age population (G1-7)	1,896,791	1,940,192	1,988,609	2,043,082	2,103,072	2,166,847
School age population (G8-9)	480,478	490,821	501,849	512,384	522,491	533,176
School age population (G10-12)	1,156,331	1,178,616	1,203,793	1,230,365	1,257,458	1,285,238
Total (G1-12)	3,533,600	3,609,629	3,694,251	3,785,831	3,883,021	3,985,261
Population	10,449,825	10,201,562	10,693,471	10,938,261	11,192,422	11,462,365
Ratio of school age population (G1-12) to population	33.8%	35.4%	34.5%	34.6%	34.7%	34.8%
	2006	2007	2008	2009	2010	
School age population (G1-7)	2,237,539	2,311,497	2,384,320	2,452,845	2,515,462	
School age population (G8-9)	543,059	555,131	571,469	592,059	614,700	
School age population (G10-12)	1,308,635	1,334,932	1,366,786	1,405,658	1,450,922	
Total (G1-12)	4,089,233	4,201,560	4,322,575	4,450,562	4,581,084	
Population	11,750,105	12,055,384	12,379,612	12,723,746	12,927,000	
Ratio of school age population (G1-12) to population	34.8%	34.9%	34.9%	35.0%	35.4%	

(Source: For school age population, UNESCO Institute for Statistics (UIS), for population, UN World Population Projects)

4-2 Number of Schools by Province and Management Body (2010)

Province	Basic Schools					Secondary Schools					Grand Total
	GRZ	GA	Private	Community	Total	GRZ	GA	Private	Community	Total	
Central	499	23	40	437	999	40	9	10	3	62	1,061
% of Total	49.9%	2.3%	4.0%	43.7%	100.0%	64.5%	14.5%	16.1%	4.8%	100.0%	
Copperbelt	432	30	212	304	978	80	8	39	2	129	1,107
% of Total	44.2%	3.1%	21.7%	31.1%	100.0%	62.0%	6.2%	30.2%	1.6%	100.0%	
Eastern	697	34	18	389	1,138	44	15	5	0	64	1,202
% of Total	61.2%	3.0%	1.6%	34.2%	100.0%	68.8%	23.4%	7.8%	0.0%	100.0%	
Luapula	404	18	16	195	633	42	2	2	0	46	679
% of Total	63.8%	2.8%	2.5%	30.8%	100.0%	91.3%	4.3%	4.3%	0.0%	100.0%	
Lusaka	227	12	95	343	677	35	6	55	3	99	776
% of Total	33.5%	1.8%	14.0%	50.7%	100.0%	35.4%	6.1%	55.6%	3.0%	100.0%	
North Western	445	41	11	193	690	53	2	3	0	58	748
% of Total	64.5%	5.9%	1.6%	28.0%	100.0%	91.4%	3.4%	5.2%	0.0%	100.0%	
Northern	932	35	20	454	1,441	41	7	5	0	53	1,494
% of Total	64.7%	2.4%	1.4%	31.5%	100.0%	77.4%	13.2%	9.4%	0.0%	100.0%	
Southern	676	45	54	363	1,138	64	19	18	0	101	1,239
% of Total	59.4%	4.0%	4.7%	31.9%	100.0%	63.4%	18.8%	17.8%	0.0%	100.0%	
Western	591	19	16	173	799	24	5	3	0	32	831
% of Total	74.0%	2.4%	2.0%	21.7%	100.0%	75.0%	15.6%	9.4%	0.0%	100.0%	
Total	4,903	257	482	2,851	8,493	423	73	140	8	644	9,137
% of Total	57.7%	3.0%	5.7%	33.6%	100.0%	65.7%	11.3%	21.7%	1.2%	100.0%	

(Source: MoE, 2009 and 2010a)

4-3 Trend of Enrollment and Annual Rate of Increase in Basic Education (Grades 1-9)

	2004	2005	2006	2007	2008	2009	2010
Male	1,292,128	1,460,382	1,522,632	1,618,594	1,678,902	1,705,330	1,764,947
	--	13.0%	4.3%	6.3%	3.7%	1.6%	3.5%
Female	1,210,630	1,391,988	1,464,122	1,547,715	1,611,104	1,647,035	1,745,341
	--	15.0%	5.2%	5.7%	4.1%	2.2%	6.0%
Total	2,502,758	2,852,370	2,986,754	3,166,309	3,290,006	3,352,365	3,510,288
	--	14.0%	4.7%	6.0%	3.9%	1.9%	4.7%

(Source: MoE, 2009 and 2010a)

4-4 Trend of Enrollment and Annual Rate of Increase in Secondary Education (Grades 10-12)

	2004	2005	2006	2007	2008	2009	2010
Male	88,214	100,856	107,863	119,946	130,129	141,615	156,509
	--	14.3%	6.9%	11.2%	8.5%	8.8%	10.5%
Female	75,205	88,263	92,346	105,603	112,890	123,180	127,422
	--	17.4%	4.6%	14.4%	6.9%	9.1%	3.4%
Total	163,419	189,119	200,209	225,549	243,019	264,795	283,931
	--	15.7%	5.9%	12.7%	7.7%	9.0%	7.2%

(Source: MoE, 2009 and 2010a)

4-5 Enrollment of Basic and Secondary Education by Gender and Province (2010)

Province	Grades 1-7			Grades 8-9			Grades 10-12		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Central	177,525	174,184	351,709	29,491	27,552	57,043	15,497	13,081	28,578
Copperbelt	224,209	233,330	457,539	52,178	50,913	103,091	37,338	33,736	71,074
Eastern	181,060	179,594	360,654	21,305	16,893	38,198	14,211	9,706	23,917
Luapula	127,982	123,068	251,050	19,230	14,637	33,867	11,043	7,022	18,065
Lusaka	171,713	209,684	381,397	35,956	37,527	73,483	25,444	22,967	48,411
North Western	101,508	99,008	200,516	15,825	12,825	28,650	10,660	7,617	18,277
Northern	226,875	210,913	437,788	22,023	17,711	39,734	14,577	9,249	23,826
Southern	203,523	193,595	397,118	34,540	29,182	63,722	18,527	16,108	34,635
Western	105,214	102,292	207,506	14,790	12,433	27,223	9,212	7,936	17,148
National	1,519,609	1,525,668	3,045,277	245,338	219,673	465,011	156,509	127,422	283,931

(Source: MoE, 2010a)

4-6 Number and Proportion of Pupils who Received Pre-school Education among Grade 1 Entrants (2010)

Province	Male	Female	% of Female	Total	% of Total	% of Enrollment
Central	5,638	5,891	51.1%	11,529	14.1%	21.2%
Copperbelt	10,142	10,642	51.2%	20,784	25.4%	35.5%
Eastern	2,343	2,421	50.8%	4,764	5.8%	7.6%
Luapula	1,700	1,753	50.8%	3,453	4.2%	8.0%
Lusaka	10,575	11,637	52.4%	22,212	27.2%	45.8%
North Western	1,292	1,405	52.1%	2,697	3.3%	8.0%
Northern	1,844	1,991	51.9%	3,835	4.7%	5.1%
Southern	5,288	5,635	51.6%	10,923	13.4%	18.5%
Western	703	837	54.4%	1,540	1.9%	4.2%
National	39,525	42,212	51.6%	81,737	100.0%	17.3%

(Source: MoE, 2010a)

4-7 Trend of GER in Basic and Secondary Education by Gender (2002-2010)

Grade/Gender		2002	2003	2004	2005	2006	2007	2008	2009	2010
Grades 1-9	Male	87.4%	91.2%	93.2%	108.4%	111.5%	117.8%	119.1%	117.5%	97.4%
	Female	80.1%	84.1%	86.4%	102.7%	106.8%	112.1%	114.5%	114.1%	94.3%
	Total	83.7%	87.7%	93.1%	105.5%	109.2%	114.8%	116.8%	115.8%	96.0%
Grades 10-12	Male	15.3%	15.0%	24.1%	21.6%	28.1%	30.2%	31.8%	33.5%	37.1%
	Female	11.8%	12.1%	18.8%	17.9%	22.0%	24.7%	25.7%	27.0%	29.8%
	Total	13.5%	13.6%	21.5%	19.7%	25.0%	27.4%	28.7%	30.2%	33.4%

(Source: MoE, 2009 and 2010a)

4-8 Trend of NER in Basic and Secondary Education by Gender (2002-2010)

		2002	2003	2004	2005	2006	2007	2008	2009	2010
Grades 1-9	Male	76.8%	80.5%	80.7%	94.0%	95.8%	99.9%	102.6%	101.9%	83.7%
	Female	72.7%	77.2%	78.2%	92.5%	95.8%	99.9%	102.6%	102.3%	84.0%
	Total	74.8%	78.8%	82.7%	93.5%	95.8%	100.5%	102.8%	102.1%	84.0%

(Source: MoE, 2009 and 2010a)

4-9 NER of Grades 1-7, 1-9, and 10-12 by Gender and Province (2010)

Province	Grades 1-7			Grades 1-9			Grades 10-12		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Central	90.8%	92.3%	92.0%	86.9%	87.9%	87.4%	31.1%	25.1%	28.1%
Copperbelt	95.1%	95.7%	95.7%	85.7%	86.3%	86.4%	46.0%	38.2%	42.6%
Eastern	90.3%	90.0%	90.5%	81.5%	81.8%	81.9%	28.0%	18.2%	23.1%
Luapula	96.2%	94.4%	95.5%	83.8%	81.1%	82.6%	31.6%	19.9%	25.8%
Lusaka	92.8%	96.4%	94.6%	84.1%	89.6%	87.0%	37.1%	30.5%	33.8%
North Western	93.7%	95.4%	94.6%	80.4%	80.3%	80.7%	38.9%	27.0%	33.0%
Northern	92.5%	92.6%	93.2%	82.8%	81.4%	82.5%	25.2%	14.9%	20.0%
Southern	93.6%	94.2%	93.5%	82.5%	80.8%	81.4%	31.7%	25.7%	28.7%
Western	94.0%	95.4%	94.8%	84.4%	83.9%	84.6%	26.1%	21.2%	23.7%
National	93.1%	93.9%	93.7%	83.7%	84.0%	84.0%	33.5%	25.6%	29.5%

(Source: MoE, 2010a)

4-10 Trend of Net Intake Rate by Gender (2002-2010)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	42.4%	38.4%	43.2%	53.0%	52.7%	58.9%	56.2%	91.5%	51.3%
Female	40.0%	37.0%	41.0%	49.2%	48.9%	58.0%	51.3%	96.8%	56.2%
Total	41.1%	37.7%	42.1%	51.1%	50.7%	58.5%	53.8%	94.4%	53.7%

(Source: MoE, 2009 and 2010a)

4-11 Net Intake Rate by Gender and Province (2010)

Province	Male	Female	Total
Central	56.4%	60.2%	58.3%
Copperbelt	51.6%	56.6%	54.1%
Eastern	39.3%	43.6%	41.5%
Luapula	49.7%	52.0%	50.8%
Lusaka	39.8%	43.8%	41.8%
N. Western	55.5%	63.5%	59.5%
Northern	57.0%	57.5%	57.3%
Southern	51.9%	57.7%	54.8%
Western	67.2%	72.7%	69.9%
National	51.3%	56.2%	53.7%

(Source: MoE, 2010a)

4-12 Trend of Transition Rate by Gender (2002-2010)

Grade/Gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	
From Grade 7 to 8	Male	53.5%	53.1%	52.6%	53.8%	50.7%	52.1%	54.2%	55.4%	62.1%
	Female	56.1%	58.9%	54.6%	57.1%	53.5%	57.3%	57.2%	56.6%	53.9%
	Total	54.7%	55.7%	53.5%	55.3%	52.0%	54.5%	55.6%	56.0%	57.9%
From Grade 9 to 10	Male	48.8%	44.3%	41.2%	39.8%	38.5%	38.5%	38.5%	41.4%	45.3%
	Female	45.7%	41.3%	45.6%	41.2%	38.0%	39.0%	37.8%	40.7%	44.8%
	Total	47.4%	42.9%	43.6%	40.4%	38.3%	38.7%	38.2%	41.0%	45.0%

(Source: MoE, 2009 and 2010a)

4-13 Transition Rate from Grade 7 to 8 and Grade 9 to 10 by Gender and Province (2010)

Province	Grade 7 to Grade 8		Grade 9 to Grade 10			
	Male	Female	Male	Female	Male	Female
Central	67.7%	70.7%	69.1%	37.7%	32.4%	36.4%
Copperbelt	72.6%	72.9%	72.8%	56.2%	50.8%	54.9%
Eastern	51.0%	45.9%	48.7%	41.6%	31.9%	41.0%
Luapula	70.4%	66.1%	68.4%	35.6%	23.7%	34.3%
Lusaka	70.3%	33.1%	44.5%	49.4%	46.4%	47.4%
N. Western	64.6%	62.5%	63.6%	45.2%	33.1%	44.4%
Northern	40.0%	43.4%	41.5%	46.2%	29.2%	42.5%
Southern	59.0%	62.3%	60.4%	37.1%	41.6%	42.7%
Western	64.1%	62.3%	63.3%	47.2%	42.4%	49.0%
National	62.1%	53.9%	57.9%	45.3%	44.8%	45.0%

(Source: MoE, 2010a)

4-14 Repetition Rates of Grades 1-7, 1-9, and 10-12 by Gender and Province (2010)

Province	Grades 1-7			Grades 1-9			Grades 10-12		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Central	6.13%	5.31%	5.72%	6.08%	5.43%	5.76%	0.65%	0.74%	0.69%
Copperbelt	3.53%	3.38%	3.45%	3.91%	3.76%	3.84%	0.65%	0.73%	0.68%
Eastern	6.15%	5.65%	5.90%	6.91%	6.43%	6.67%	1.19%	1.48%	1.31%
Luapula	5.33%	5.33%	5.33%	5.91%	5.91%	5.91%	1.18%	1.95%	1.49%
Lusaka	3.59%	2.70%	3.10%	3.71%	2.92%	3.28%	0.87%	0.59%	0.73%
N. Western	8.80%	8.56%	8.68%	9.53%	9.16%	9.35%	5.38%	5.28%	5.34%
Northern	8.40%	8.06%	8.24%	9.06%	8.73%	8.90%	1.65%	2.54%	2.01%
Southern	9.20%	7.82%	8.52%	9.56%	8.16%	8.88%	0.71%	0.75%	0.73%
Western	6.16%	5.52%	5.84%	6.85%	6.14%	6.50%	1.25%	1.13%	1.20%
National	6.32%	5.62%	5.97%	6.72%	6.03%	6.38%	1.26%	1.31%	1.28%

(Source: MoE, 2010a)

4-15 Trend of Dropout Rate in Basic and Secondary Education by Gender (2002-2010)

Grade/ Gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Grades 1-9	Male	3.4%	2.4%	2.5%	2.1%	2.2%	2.0%	1.7%	1.8%	1.9%
	Female	3.9%	2.9%	3.4%	3.0%	3.0%	2.9%	2.7%	2.9%	2.7%
	Total	3.6%	2.6%	2.9%	2.5%	2.6%	2.4%	2.2%	2.4%	2.3%
Grades 10-12	Male	1.5%	1.1%	1.5%	1.3%	1.2%	0.8%	0.6%	0.6%	0.6%
	Female	2.3%	2.3%	2.9%	2.9%	2.6%	2.1%	1.7%	1.8%	1.6%
	Total	1.8%	1.6%	2.1%	2.0%	1.8%	1.4%	1.1%	1.1%	1.1%

(Source: MoE, 2009 and 2010a)

4-16 Dropout Rates of Grades 1-7, 1-9, and 10-12 by Gender and Province (2010)

Province	Grades 1-7			Grades 1-9			Grades 10-12		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Central	1.31%	1.88%	1.60%	1.43%	2.24%	1.83%	0.52%	1.59%	1.01%
Copperbelt	1.37%	1.65%	1.51%	1.37%	1.81%	1.59%	0.39%	0.96%	0.66%
Eastern	1.97%	2.62%	2.29%	2.06%	3.01%	2.53%	0.79%	1.86%	1.23%
Luapula	2.59%	3.46%	3.02%	2.79%	4.05%	3.40%	0.57%	1.84%	1.06%
Lusaka	1.12%	1.19%	1.16%	1.12%	1.28%	1.21%	0.37%	0.72%	0.54%
N. Western	2.80%	3.74%	3.26%	2.99%	4.54%	3.75%	1.70%	3.28%	2.36%
Northern	2.47%	3.33%	2.89%	2.62%	3.83%	3.20%	0.80%	2.40%	1.42%
Southern	1.29%	1.87%	1.57%	1.41%	2.46%	1.92%	0.64%	1.89%	1.22%
Western	1.90%	2.57%	2.23%	2.06%	3.21%	2.62%	0.74%	2.90%	1.74%
National	1.79%	2.33%	2.06%	1.88%	2.71%	2.29%	0.62%	1.58%	1.05%

(Source: MoE, 2010a)

4-17 Survival Rate from Grade 1 to 5 and Grade 1 to 9 by Gender and Province (2009)

Province	From Grade 1 to 5		From Grade 1 to 9			
	Male	Female	Male	Female	Male	Female
Central	93.1%	86.1%	83.3%	40.1%	35.8%	37.8%
Copperbelt	95.0%	99.4%	89.6%	57.6%	59.8%	59.0%
Eastern	67.6%	66.0%	66.8%	24.6%	20.0%	22.2%
Luapula	69.0%	66.6%	67.8%	34.9%	38.0%	31.3%
Lusaka	93.9%	98.8%	97.0%	46.1%	45.8%	46.0%
N. Western	71.7%	67.6%	69.7%	39.1%	28.6%	34.1%
Northern	76.0%	69.4%	72.8%	26.1%	18.5%	22.5%
Southern	96.4%	91.3%	94.2%	43.5%	34.5%	38.9%
Western	71.1%	70.2%	70.7%	34.5%	28.1%	38.9%
National	85.0%	81.5%	83.3%	39.7%	33.7%	31.7%

(Source: MoE, 2009)

4-18 Comparison of Transition, Repetition, Dropout and Survival Rates in Basic Education against the National Average by Province

	Transition rate to Grade 8 (2010)		Repetition rate (2010)		Dropout rate (2010)		Survival rate (2009)	
	province-national average	Male-Female	province-national average	Male-Female	province-national average	Male-Female	province-national average	Male-Female
Central	11.2	-2.9	0.62	0.65	0.46	-0.82	6.1	4.3
Copperbelt	14.9	-0.3	2.54	0.15	0.70	-0.45	27.3	-2.2
Eastern	-9.2	5.1	-0.29	0.48	-0.24	-0.95	-9.5	4.6
Luapula	10.6	4.4	0.47	0.00	-1.10	-1.26	-0.4	-3.1
Lusaka	-13.4	37.2	3.10	0.79	1.09	-0.16	14.3	0.3
N. Western	5.8	2.1	-2.97	0.37	-1.45	-1.56	2.4	10.5
Northern	-16.4	-3.4	-2.52	0.33	-0.91	-1.21	-9.2	7.6
Southern	2.6	-3.3	-2.50	1.40	0.38	-1.04	7.2	9.0
Western	5.4	1.8	-0.12	0.71	-0.32	-1.15	7.2	6.4
National	57.9	--	6.38	--	2.29	--	31.7	--

(Source: MoE. For repetition, dropout, and transition rates, MoE, 2010a. For survival rates, MoE, 2009)

4-19 Gender Parity Index by Province (2009)

	Grade 1-4	Grade 5-7	Grade 8-9	Grade 10-12
Central	1.01	0.93	0.94	0.96
Copperbelt	1.03	0.97	0.99	0.99
Eastern	0.97	0.91	0.81	0.75
Luapula	0.98	0.88	0.77	0.70
Lusaka	1.04	1.04	1.01	0.99
N. Western	1.00	0.92	0.80	0.78
Northern	0.99	0.84	0.75	0.69
Southern	1.00	0.97	0.86	0.81
Western	1.02	0.92	0.82	0.87
National	1.00	0.94	0.88	0.87

(Source: MoE, 2009)

4-20 Trend of CSEN in Basic and Secondary Education Enrollment by Gender (2002-2010)

		2002	2003	2004	2005	2006	2007	2008	2009	2010
Grades 1-9	Male	13,093	17,159	39,368	46,400	84,141	89,291	88,420	110,273	102,071
	Female	10,116	13,605	33,945	39,783	76,903	80,793	80,446	91,842	96,323
	Total	23,209	30,764	73,313	86,183	161,044	170,084	168,866	202,115	198,394
Grades 10-12	Male	744	781	1,482	1,413	3,228	2,687	1,826	2,445	1,880
	Female	520	953	1,346	1,673	3,309	2,558	1,906	2,877	2,417
	Total	1,264	1,734	2,828	3,086	6,537	5,245	3,732	5,322	4,297

(Source: MoE, 2009 and 2010a)

4-21 Trend of Orphans in Basic and Secondary Education Enrollment by Gender (2002-2010)

		2002	2003	2004	2005	2006	2007	2008	2009	2010
Grades 1-9	Male	120,153	179,536	260,138	309,731	325,248	333,433	339,927	330,520	329,320
	Female	115,362	170,756	247,314	297,483	314,097	322,519	333,033	323,033	320,078
	Total	235,515	350,292	507,452	607,214	639,345	655,952	672,960	653,553	649,398
Grades 10-12	Male	6,662	9,278	16,200	20,193	24,259	26,321	24,341	30,687	32,964
	Female	6,305	9,216	13,636	18,069	20,744	23,806	22,157	26,178	28,847
	Total	12,967	18,494	29,836	38,262	45,003	50,127	46,498	56,865	61,811

(Source: MoE, 2009 and 2010a)

4-22 Completion Rate of Basic Education (Grade 9) and Secondary Education (Grade 12) by Gender (2002-2010)

Grade	Gender	2002	2003	2004	2005	2006	2007	2008	2009	2010
Grades 9	Male	38.8%	41.4%	42.8%	46.4%	47.2%	50.7%	55.7%	56.9%	51.9%
	Female	31.9%	34.8%	34.4%	39.1%	39.3%	43.3%	46.8%	48.4%	54.6%
	Total	35.3%	38.1%	38.5%	42.7%	43.2%	47.0%	51.2%	52.7%	53.2%
Grade 12	Male	17.4%	18.0%	18.4%	20.1%	20.6%	22.2%	25.0%	22.3%	35.7%
	Female	11.6%	13.0%	13.0%	15.0%	14.8%	17.2%	18.9%	17.4%	27.8%
	Total	14.4%	15.4%	15.7%	17.6%	17.7%	19.7%	22.0%	19.8%	31.7%

(Source: MoE, 2009 and 2010a)

4-23 Completion Rate of Basic Education (Grades 7 and 9) and Secondary Education (Grade 12) by Gender and Province (2010)

Province	Grade 7			Grades 9			Grade 12		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Central	89.66%	83.94%	86.82%	60.59%	60.45%	60.59%	32.86%	30.32%	31.66%
Copperbelt	100.04%	100.79%	100.42%	58.09%	56.71%	58.09%	50.16%	45.42%	47.74%
Eastern	84.49%	85.80%	89.53%	46.19%	42.39%	46.19%	31.55%	20.90%	26.24%
Luapula	87.25%	81.93%	86.40%	60.64%	51.01%	60.64%	32.74%	20.37%	26.60%
Lusaka	95.20%	96.34%	95.75%	66.26%	67.16%	66.26%	43.49%	35.54%	39.46%
N. Western	97.47%	93.65%	95.65%	62.83%	55.32%	62.83%	38.50%	26.77%	32.64%
Northern	85.56%	77.72%	81.91%	43.58%	38.89%	43.58%	23.80%	13.63%	18.70%
Southern	89.89%	85.33%	89.41%	42.98%	39.77%	42.98%	32.78%	23.98%	28.33%
Western	82.49%	77.89%	80.22%	51.46%	46.70%	51.46%	26.39%	21.06%	23.70%
National	90.88%	89.61%	90.94%	51.85%	54.61%	53.23%	35.66%	27.83%	31.74%

(Source: MoE, 2010a)

Note: There is a possibility of data input error, as the total figure for Grade 9 is the same as male figure and not reflecting female figure.

4-24 Average Subject Scores of National Assessment of Learning Achievement by Province (2008)

Province	English	Math	Life Skills	Zambian Language
Central	31.3	36.0	38.5	39.2
Copperbelt	36.8	42.8	42.1	
Eastern	34.2	39.1	35.1	34.7
Luapula	35.4	40.4	37.6	44.5
Lusaka	37.9	39.1	41.6	31.2
N. Western	38.2	41.9	47.0	
Northern	37.5	41.1	42.7	48.2
Southern	32.7	36.8	37.3	35.0
Western	35.8	36.0	39.9	42.8
National	35.3	39.3	40.2	39.4

(Source: MoE, 2008)

Note: Copperbelt and North Western provinces did not conduct Zambian Language.

4-25 Average Subject Scores of National Assessment of Learning Achievement by Gender and Area (2008)

Subject	Rural			Urban			National		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
English	33.5	32.6	33.1	41	39.7	40.3	35.9	35.1	35.5
Mathematics	38.2	35.3	36.8	43.5	41.2	42.3	39.8	37.2	38.5
Life Skills	37.9	36.7	37.3	47.1	46.4	46.7	40.8	40	40.4
Zambian Language	38.3	37.1	37.8	40.4	40.9	40.7	38.5	37.8	38.2

(Source: MoE, 2008)

4-26 Average Subject scores of National Assessment of Learning Achievement by School Management (2008)

Agency	English	Math	Life Skills	Zambian Language
GRZ	34.7	38.7	39.9	41.3
GA	32.4	36.8	35.4	39.4
Community	34.1	40.7	39.0	36.3
Private	55.5	49.5	63.0	40.0
IRI Center	45.7	58.9	54.0	40.1

(Source: MoE, 2008)

Note: IRI: Interactive Radio Initiative

4-27 Results of SACMEQ II and III

Countries	SACMEQ II (2000)		SACMEQ III (2007)	
	Reading Score	Math Score	Reading Score	Math Score
Botswana	521	513	534.6	520.5
Kenya	546	563	543.1	557.0
Lesotho	451	447	467.9	476.9
Malawi	429	433	433.5	447.0
Mauritius	536	584	573.5	623.3
Mozambique	517	530	476.0	483.8
Namibia	449	431	496.9	471.0
Seychelles	582	554	575.1	550.7
South Africa	492	486	494.9	494.8
Swaziland	530	516	549.4	540.8
Tanzania	546	522	577.8	552.7
Uganda	482	506	478.7	481.9
Zambia	440	435	434.4	435.2
Zanzibar	478	478	536.8	489.9
Zimbabwe			507.7	519.8
All Countries	500	500	512.0	509.7

(Source: SACMEQ, 2010a)

4-28 Pupils per Classroom Ratio by Grades and Province

Province	Grades 1-4	Grades 5-7	Grades 1-7	Grades 1-9	Grades 10-12
Central	35.4	43.9	50.6	43.3	42.2
Copperbelt	43.2	37.0	51.7	42.8	48.1
Eastern	40.6	35.8	48.4	47.5	49.1
Luapula	37.0	48.7	42.9	44.7	53.4
Lusaka	35.4	33.4	55.1	46.8	40.7
North Western	39.8	34.3	43.8	39.9	47.0
Northern	35.6	37.0	47.3	44.8	44.8
Southern	34.5	29.1	41.8	41.6	47.0
Western	34.6	28.7	38.6	37.9	57.2
National	37.6	38.2	37.8	43.5	46.7

(Source: MoE, 2010a)

4-29 Average Teaching Hours by Grade and Province (hours)

	Grade 1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
Central	3.2	3.2	3.3	3.5	4.9	5.1	5.2	5.5	5.5	5.9	5.9	5.8
Copperbelt	3.6	3.6	3.7	3.9	4.9	5.0	5.1	5.7	5.6	5.9	5.7	5.7
Eastern	3.6	3.6	3.7	3.8	5.3	5.4	5.4	5.5	5.5	6.0	5.7	5.6
Luapula	3.7	3.7	3.7	3.8	5.2	5.2	5.3	5.5	5.5	5.8	5.8	5.8
Lusaka	3.9	3.9	4.0	4.1	5.0	5.1	5.3	5.8	5.8	6.4	6.3	6.2
North Western	3.4	3.4	3.5	3.7	5.1	5.1	5.2	5.4	5.4	5.5	5.4	6.5
Northern	3.5	3.4	3.4	3.5	5.1	5.2	5.2	5.4	5.4	6.2	6.2	6.1
Southern	3.5	3.5	3.7	3.7	5.3	5.4	5.4	5.7	5.7	5.5	5.7	5.7
Western	3.1	3.1	3.2	3.3	4.7	4.8	4.9	5.0	5.0	5.5	5.6	5.6
National	3.5	3.5	3.6	3.7	5.1	5.2	5.2	5.5	5.5	5.9	5.8	5.8

(Source: MoE, 2009)

4-30 Pupils per Textbook by Province

	Basic Schools				Secondary Schools			
	English	Life Skills	Math	Zambian Language	English	Life Skills	Math	Zambian Language
Central	0.38	0.19	0.35	0.24	0.73	0.10	0.64	0.19
Copperbelt	0.45	0.14	0.38	0.24	0.97	0.14	0.66	0.26
Eastern	0.40	0.23	0.36	0.26	0.56	0.13	0.41	0.37
Luapula	0.42	0.20	0.38	0.27	0.67	0.38	0.51	0.35
Lusaka	0.45	0.14	0.38	0.24	1.10	0.12	0.68	0.08
North Western	0.47	0.25	0.41	0.18	0.66	0.14	0.52	0.19
Northern	0.51	0.26	0.46	0.29	0.68	0.15	0.73	0.22
Southern	0.45	0.23	0.39	0.27	1.47	0.65	1.05	0.76
Western	0.58	0.30	0.47	0.45	0.54	0.20	0.46	0.36
National	0.45	0.21	0.39	0.27	0.91	0.22	0.66	0.30

(Source: MoE, 2009)

4-31 Trends of the Number and Annual Rate of Increase of Teachers in Basic Education by Gender (2002-2010)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	20,602	21,534	23,806	26,125	27,535	29,531	30,989	30,088	32,327
	--	4.5%	10.6%	9.7%	5.4%	7.2%	4.9%	-2.9%	7.4%
Female	19,886	20,012	21,955	23,897	24,987	27,364	30,822	30,777	31,082
	--	0.6%	9.7%	8.8%	4.6%	9.5%	12.6%	-0.1%	1.0%
Total	40,488	41,546	45,761	50,022	52,522	56,895	61,811	60,865	63,409
	--	2.6%	10.1%	9.3%	5.0%	8.3%	8.6%	-1.5%	4.2%

(Source: MoE, 2009 and 2010a)

4-32 Trends of the Number and Annual Rate of Increase of Teachers in Secondary Education by Gender (2002-2010)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	6,957	5,442	5,442	5,679	8,240	8,831	9,293	9,645	9,737
	--	-21.8%	0.0%	4.4%	45.1%	7.2%	5.2%	3.8%	1.0%
Female	2,678	2,395	2,395	2,662	5,383	5,886	6,119	6,852	6,945
	--	-10.6%	0.0%	11.1%	102.2%	9.3%	4.0%	12.0%	1.4%
Total	9,635	7,837	7,837	8,341	13,623	14,717	15,412	16,497	16,682
	--	-18.7%	0.0%	6.4%	63.3%	8.0%	4.7%	7.0%	1.1%

(Source: MoE, 2009 and 2010a)

4-33 Number of Pupils per Teacher by Educational Stages and Province (2010)

	Grades 1-4*	Grades 5-7	Grades 1-7	Grades 8-9	Grades 1-9	Grades 10-12
Central	62.2	36.8	49.2	47.2	37.6	20.7
Copperbelt	54.9	37.3	45.5	44.1	38.2	21.3
Eastern	79.8	41.0	60.3	57.4	39.5	28.1
Luapula	78.4	41.1	60.1	57.2	41.6	23.8
Lusaka	51.0	39.0	44.5	43.1	36.3	18.1
North Western	66.5	35.6	51.1	48.4	35.0	22.6
Northern	73.8	36.7	55.0	53.1	38.0	22.3
Southern	55.7	33.6	44.2	42.3	33.1	20.3
Western	63.5	31.5	47.2	44.8	32.3	25.9
National	63.5	36.9	49.8	47.6	36.8	21.7

(Source: MoE, 2010a)

Note: The figure for Grades 1-4 is covered by double-shifting.

4-34 Number of Teachers in Basic Education (Grades 1-9) by Gender and Qualification (2010)

	Male	Female	% (F)	Total	% of Total
Advanced Diploma	134	44	24.7%	178	0.3%
Certificate In Special Education	170	158	48.2%	328	0.5%
Diploma (Basic or Sec. Teacher's)	6,810	6,462	48.7%	13,272	21.0%
Education Bachelor's Degree	268	195	42.1%	463	0.7%
Master's Degree	15	14	48.3%	29	0.0%
None	3,438	1,495	30.3%	4,933	7.8%
Other Bachelor's Degree	35	31	47.0%	66	0.1%
Pre-School Teacher's Certificate	273	1,279	82.4%	1,552	2.5%
Primary Teacher's Certificate	19,401	22,045	53.2%	41,446	65.7%
Special Education Degree	17	26	60.5%	43	0.1%
Special Education Diploma	340	402	54.2%	742	1.2%
National	30,901	32,151	51.0%	63,052	100.0%

(Source: MoE, 2010a)

4-35 Number of Teachers in Secondary Education (Grades 10-12) by Gender/Qualification (2010)

	Male	Female	% Female	Total	% of Total
Advanced Diploma	268	73	21.4%	341	2.0%
Certificate In Special Education	29	16	35.6%	45	0.3%
Diploma (Basic or Sec. Teacher's)	6,406	4039	38.7%	10,445	62.6%
Education Bachelor's Degree	1,406	706	33.4%	2,112	12.7%
Master's Degree	73	44	37.6%	117	0.7%
none	54	28	34.1%	82	0.5%
Other Bachelor's Degree	125	41	24.7%	166	1.0%
Pre-School Teacher's Certificate	26	152	85.4%	178	1.1%
Primary Teacher's Certificate	1,220	1723	58.5%	2,943	17.6%
Special Education Degree	19	17	47.2%	36	0.2%
Special Education Diploma	120	97	44.7%	217	1.3%
National	9,746	6,936	41.6%	16,682	100.0%

(Source: MoE, 2010a)

4-36 List of Public Colleges and Universities of Education

No.	College Name (Province)	Certificate/Diploma /Degree	Annual Outputs	Remarks
1	Zambia Institute for Special Education (Lusaka Province)	Diploma	--	In-service programme
2	National In-service Training College (Lusaka Province)	Diploma Degree	500	Graded up to University
3	Nkrumah Secondary Teachers' College (Central Province)	Diploma Secondary	210	Graded up to University
4	Copperbelt Secondary Teachers' College (Copperbelt Province)	Diploma Secondary	96	Graded up to University
5	Mufulira Teacher Training College (Copperbelt Province)	Diploma Secondary	200	Diploma Secondary
6	Kitwe Teacher Training College (Copperbelt Province)	Certificate Diploma Primary	200	To be graded up to Diploma Primary
7	Malcolm Moffat Teacher Training College (Central Province)	Certificate	120	To be graded up to Diploma Primary
8	Kasama Teacher Training College (Northern Province)	Certificate	200	To be graded up to Diploma Primary
9	Mongu Teacher Training College (Western Province)	Certificate	150	To be graded up to Diploma Primary
10	Chipata Teacher Training College (Eastern Province)	Diploma Primary	200	
11	Mansa Teacher Training College (Luapula Province)	Diploma Primary	150	
12	Solwezi Teacher Training College (Northwestern Province)	Certificate	150	To be graded up to Diploma Primary
13	David Livingstone Teacher Training College (Southern Province)	Diploma Secondary	200	
14	Charies Lwanga Teacher Training College (Southern Province)	Diploma Primary	120	
15	University of Zambia	Diploma Secondary Degree	450	

(Source: MoE, Interview with TESS, 2012)

4-37 Curriculum of Teacher Education Courses

	Education Foundations	Teaching Courses/ Subjects
ECCDE	<ul style="list-style-type: none"> i. Child psychology ii. Theory and practice iii. Production of Aids (Teaching/learning Aids) iv. Sociology of Education v. Research Methodology vi. Health, Nutrition and First Aid vii. Special Education viii. Entrepreneurship Education 	<ul style="list-style-type: none"> i. Language Development ii. Music, games and Dances iii. Art and Design iv. Mathematics v. Information and Communication Technology vi. Integrated Science
Primary School	<ul style="list-style-type: none"> i. Education Administration, History and Philosophy of Education ii. Psychology and Sociology of Education iii. Special Education and Guidance and Counselling iv. Curriculum Studies v. Teaching Methods vi. Entrepreneurship Education vii. Information and Communication Technology Education viii. Research Methods 	<ul style="list-style-type: none"> i. Mathematics Education ii. Integrated Science Education iii. Literacy & Language Education iv. Expressive Arts v. Technology Studies vi. Social Sciences
Junior Secondary School	<ul style="list-style-type: none"> i. Education Administration, History and Philosophy of Education ii. Psychology and Sociology of Education iii. Special Education and Guidance and Counselling iv. Curriculum Studies v. Teaching Methods vi. Entrepreneurship vii. Information and Communication Technology Education viii. Research Methods 	Students will be required to study at least two teaching subjects of their own choice. Higher institutions of learning will be expected to determine the subject combinations but should be in line with the teaching subjects found in the Junior Secondary School Curriculum.
Senior Secondary School	<ul style="list-style-type: none"> i. Education Administration, History and Philosophy of Education ii. Psychology and Sociology of Education iii. Special Education and Guidance and Counselling iv. Curriculum Studies v. Teaching Methods vi. Entrepreneurship Education vii. Research Methods Information and Communication Technology Education 	Students will be required to study at least two teaching subjects of their own choice. Higher institutions of learning will be expected to determine the subject combinations but should be in line with the teaching subjects found in the Senior Secondary School Curriculum.
Special Education	<ul style="list-style-type: none"> i. Education Psychology ii. History and Philosophy of Education iii. Production of Aids (Teaching/learning Aids) iv. Sociology of Education v. Research Methodology vi. Information Communication Technology vii. Entrepreneurship Education viii. Curriculum Studies 	<ul style="list-style-type: none"> i. Hearing Impairment and a teaching subject ii. Intellectual and Physical Impairments and a teaching subject iii. Visually Impairment and a teaching subject

(Source: MoE, 2012b)

4-38 Reasons for Leaving the Job for Teachers (2010)

Reasons for leaving	Male	Female	Proportion of Female	Total	Proportion
Transfer to positions other than teaching position	133	81	37.9%	214	2.2%
End of contract	375	297	44.2%	672	6.9%
Death	308	382	55.4%	690	7.1%
Discharge	264	98	27.1%	362	3.7%
Illness	145	136	48.4%	281	2.9%
Other	2,543	2,049	44.6%	4,592	47.2%
Resignation	1,320	746	36.1%	2,066	21.2%
Retirement	455	403	47.0%	858	8.8%
Total	5,543	4,192	43.1%	9,735	100.0%

(Source: MoE, 2010a)

Chapter 5

5-1 Education Sector Recurrent Budget (2011-2015) (billion ZMK)

	2011	2012	2013	2014	2015
Primary Education	1,904	2,147	2,420	2,723	3,123
% of Total	67.6%	66.9%	66.6%	66.3%	66.1%
Secondary Education	478	598	712	848	1,027
% of Total	17.0%	18.6%	19.6%	20.6%	21.7%
Tertiary Education: Teacher Training	18	20	21	23	25
% of Total	0.6%	0.6%	0.6%	0.6%	0.5%
Tertiary Education: University	332	359	388	419	452
% of Total	11.8%	11.2%	10.7%	10.2%	9.6%
Management and Administration	78	81	85	89	94
% of Total	2.8%	2.5%	2.3%	2.2%	2.0%
Science and Vocational Training	5	5	6	6	6
% of Total	0.2%	0.2%	0.2%	0.1%	0.1%
Total	2,816	3,211	3,632	4,109	4,728
% of Total	100.0%	100.0%	100.0%	100.0%	100.0%

(Source: MoE, 2012a)

5-2 Education Sector Development Budget (2011-2015) (billion ZMK)

	2011	2012	2013	2014	2015
Primary Education	78	80	65	62	62
% of Total	7.9%	7.0%	4.3%	4.1%	4.2%
Secondary Education	720	820	1,190	1,170	1,120
% of Total	72.7%	72.0%	78.5%	77.3%	75.4%
Tertiary Education: Teacher Training	15	16	18	19	21
% of Total	1.5%	1.4%	1.2%	1.3%	1.4%
Tertiary Education: University	41	44	47	51	55
% of Total	4.1%	3.9%	3.1%	3.4%	3.7%
Science and Vocational Training	136	179	195	211	227
% of Total	13.7%	15.7%	12.9%	13.9%	15.3%
Total	991	1,140	1,516	1,514	1,486
% of Total	100.1%	100.1%	100.1%	100.1%	100.1%

(Source: MoE, 2012a)

5-3 Trend of Domestic Financing and Donor Assistance in Education Sector (billion ZMK)

Year	Total	GRZ	Pool	% Pool
2005	1,405	872	366	26.0%
2006	1,591	1,277	178	11.2%
2007	1,917	1,616	280	14.6%
2008	2,152	1,879	268	12.5%
2009	2,778	2,424	353	12.7%
2010	3,289	2,922	367	11.2%

(Source: JICA, 2011)

Note: Prepared based on the original budget shown in AWPB 2010.

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