



Stockholm
University

**Institute of International Education
Department of Education**

An Education Sector Diagnosis of Primary Education in Cambodia

Assignment for the Course
Educational Planning

Sovichea Vann

January 2015

Abbreviations

List of Figures and Tables

1. Introduction

1.1 Aims and Objectives _____	6
1.2 Methodology _____	6
1.3 Limitations _____	8

2. Contextual analysis

2.1 Demographics and Geography _____	8
2.2 Political Background _____	9
2.3 Economic Background _____	11
2.4 Education System _____	12

3. Access, Internal Efficiency, and Equity Analysis

3.1 Access _____	13
3.2 Internal Efficiency _____	14
3.3 Equity _____	16

4. Quality, External Effectiveness, Costs & Financing and System Management

4.1 Quality _____	17
4.2 External Effectiveness _____	20
4.3 Costs and Financing _____	22
4.4 System Management _____	22

5. Priority Problems and Recommendations _____ 23

6. Conclusion _____ 28

References

Appendices

Abbreviations

ADB:	Asian Development Bank
CITA:	Cambodian Independent Teachers' Association
EGRA:	Early Grade Reading Assessment
EFA:	Education for All
ESD:	Sector Analysis Diagnosis
HDI:	Human Development Index
GDP:	Gross Domestic Product
GER:	Gross Enrollment Rate
IIEP:	International Institute of Education Planning
ILO:	International Labor Organization
JICA:	Japan International Cooperation Agency
MoEYS:	Ministry of Education, Youth and Sport
MoP:	Ministry of Planning
MDG:	Millennium Development Goal
NER:	Net Enrollment Rate
NIS:	National Institute of Statistics
OECD:	Organization for Economic Co-operation and Development
UN:	United Nations
UNESCO:	United Nations Educational, Scientific, and Cultural Organization
UNDP:	United Nations Development Program
USAID:	United States Agency for International Development.
\$:	US Dollar

List of Figures and Tables

Figure 1: System Approach	7
Figure 2: Cambodia Population Pyramid	9
Figure 3: Public Expenditure on Education Sector By GDP	10
Figure 4: Gross Development Product of Cambodia	11
Figure 5: Cambodian Education System	12
Figure 6: Enrollment Rates in Primary Cycle	13
Figure 7: Repetition Rates by Levels of Education	14
Figure 8: Cohort Survival Rate of Student by Grades 2012-2013	15
Figure 9: Enrollment by Gender	16
Figure 10: Student-Teacher Ratio	17
Figure 11: Early Grade Reading Assessment in Primary School	20
Figure 12: Young Employment by Education Level	21
Table 1: Primary Teacher Basic Salary by GDP in Southeast Asian Region	18
Table 2: Textbook Ratio in Primary School	19
Table 3: Education Expense per Graduate	22

1. Introduction

Today, local and international communities have greater focused on achieving Education for All (EFA) and the universal primary education for Millennium Development Goal (MDG2):

“Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling” (UN, 2014, p.16)

Primary education starts at the age of 6 and continues through 12 despite of having different requirements among countries that are promised to ensure that children are enrolled the complete full course of primary years. The enrollment and completion target was 100% but later was reduced to 95% to track the progress in achieving the goal. The good indicator of the effectiveness and quality of primary education is the adult literacy among 15-24 year old in being able to use their basic reading and writing skills in their daily life, in workforce requirements, or in pursuing higher education (UN, 2014). This has been a major challenge for governments, educators and education planners mainly in developing countries to achieve the target. Thus, the area of education planning is increasingly more important to play this role and to contribute to the education development. Marlin and Sohn (2014) wrote that education planning offers alternatives for policy makers and decision makers with logical framework that can be adopted to develop and implement the education policy.

To improve the education system, outcomes and quality that meet the need of social demand, education planning plays more important roles and functions which are intervened by public authorities and aligned educational development partners (Coombs, 1970). Influenced by the concept of human rights, equity and human resource that set the boundary of education, the education planning helps government and relevant actors to set priorities, direct interventions, and external funding to achieve economics and social objectives (Bray & Varghese, 2010). In this case, all children are entitled to access to at least primary education to acquire the basic reading and writing skills as a part of human rights and equal opportunity to education, which is the main part of this paper.

This paper focuses on Cambodia, one of the poor nations that still face a major problem of adult literacy and poor education system (UNESCO, 2014). After a devastated civil war, Cambodia faced many social and economical problems; meanwhile, Cambodia has promised to achieve the Millennium Development Goals that were incorporated into its national plans since 2003 to ensure the equal access to quality of education for all children (UNDP, 2014). Therefore, it is interesting to see how education planning works to fix the problems and develop the education system in Cambodia; purposefully primary education is selected for this paper.

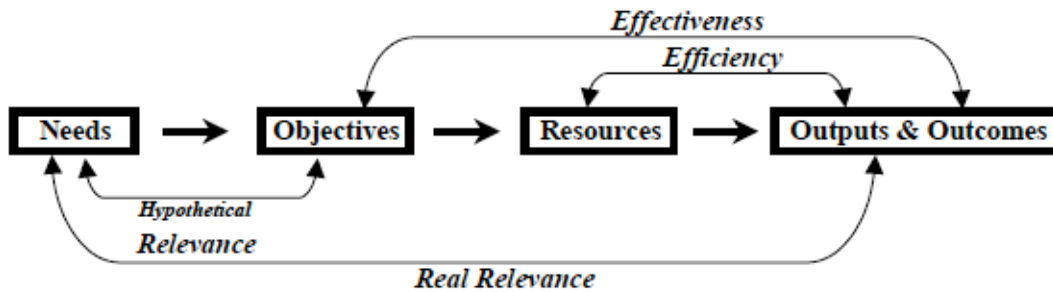
1.1 Aims and Objectives

The aim of this paper intends to identify the problems, analyze the key issues and propose possible recommendations for future improvement of education system in Cambodia by using Education Sector Analysis Diagnosis (ESD). Firstly, there are some main issues of the social, political and economic context to be identified to understand the developmental facts in the country. Secondly, the paper will look at the key aspects of education system including access, equity and quality of the primary level to give the necessary data that bring more understanding about the issues. Then it will further address the financial resource, external effectiveness and system management that observes the input and resource allocation which the education system operates and processes insulating in output and outcome in the cycle to accomplish the goals (Chang, 2006). Lastly, based on the analytical framework and data in the discussion, this paper will suggest some solutions and recommendations to enhance the school system and policies of primary sector in Cambodia.

1.2 Methodology

The main analytical method of this paper relies on the Education Sector Analysis (ESD) suggested by UNESCO and International Institute of Education Planning. In general, ESD is a critical examination of the status, functioning and results of education system, which is designed to identify its strengths, weakness and opportunities for better improvement (UNESCO, n.d). However, the comprehensive diagnosis predominantly based on system approach like any other system in which education has its inputs, processes, outputs and outcomes being used in strategic management cycle as illustrated by Chang (2006):

Figure 1: System Approach



This approach has been widely used as basis for the formulation of educational plan and policies in many countries. Also, ESD has become increasingly important for many governments and development agencies that intensively focus on sector-wide approach and comprehensive diagnosis for education planning, external program and financial support that work in relation with regular review, assessment and its achievement of the education sector (UNESCO, n.d).

The analysis generally studies the education system (1) in context of a specific country and its human resource development and (2) various aspects that give 8 comprehensive angles of the sectors: context, access, internal efficiency, equity, quality, external effectiveness, costs & financing and management (IIEP, n.d). It is an important aspect of ESD in designing education policy and reform due to the fact that it can possibly judge the coherence of the education objectives and access relevance to social, economic, cultural and political situation of a specific country being studied. Moreover, it is also possible to evaluate the degree of the education system that can attain its goals and efficiency. These have been set out when this analysis is not only the technical exercise but also the intensive political and social process that brings about significant reform and future change in education. This paper will address these key aspects that relevant to Cambodia in the primary education.

1.3 Limitations

There are some limitations in this paper. Firstly, the access to quality of primary education is limited as there is no international standard report on quality of primary student performance in Cambodia. The local assessment is used as a national standard test so this paper only used this resource as a reference to judge the performance and make recommendation. Moreover, the lack of specific data of system management on the education administrator, financial reports and number of training program making the recommendation and suggestion overwhelmed by the available data only. This study bases mainly on quantitative than qualitative knowledge that supposed to be supplemented to effectively address the problems and propose reliable suggestions for implementation.

2. Contextual Analysis

This part presents the background of Cambodian context and overview of the country development. The demographics and political situation will be addressed and followed by the economics and educational system.

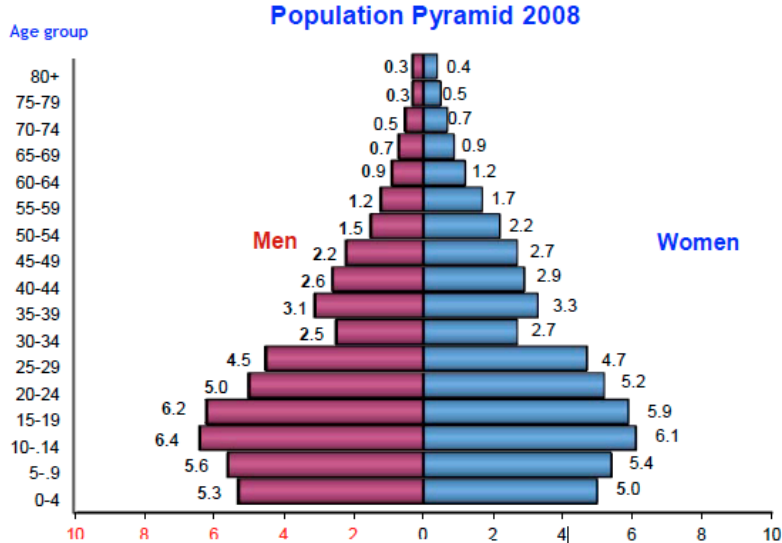
2.1 Demographics and Geography

Located in Southeast Asia, Cambodia is an agricultural based country sharing the borders with Thailand, Lao, Vietnam and the Gulf of Thailand. There are two distinct monsoon seasons of the tropical climate: dry and rainy seasons all year round with an average of 27°C annual temperature. The total land size is 181,035 square kilometers with the total population of 14.6 million with its annual population growth rate is 1.54% (NIS, 2011). The major proportion of the population living in the rural area was made up of 80% while 20% in urban areas which is around 1.3 million inhabitants living in the capital city, Phnom Penh, and the population density is 75 per square kilometer.

The total population makes up of Khmer 90% and it is the only official language spoken by 97%. English and French are the foreign languages used in education and communication. The literacy rate is 78% among adults age of 15 and older where male adult literacy rate 85% higher than female adult literacy rate which is 71% (UNDP, 2014). The country is considerably one of the

poorest countries in the world where 28% of the total population living under poverty line. Cambodia is also affected by AIDs accounted for 0.8% of adults between 15-50 years. The life expectancy is at 63 years, higher infant mortality rate at 51 deaths/1,000, and death rates at 8 deaths/1,000 and total fertility rate reportedly at 2.6 child/woman. According to JICA (2012), the sex ratio showed an imbalance, meaning that more number of women than men population in Cambodia. The figure below show population pyramid:

Figure 2 : Cambodia Population Pyramid



Source: JICA (2012). p.1

Figure 1.1 presents pyramid structure of sex and age distribution of the population in 2008 indicates young people (age 0-14) represent almost 34% of the total population. The majority proportion shows 45% of the population is under 20 year old of age as the sign of growing workforce in the country; however, there is a recent declining fertility trend and number of young population (NIS, 2013).

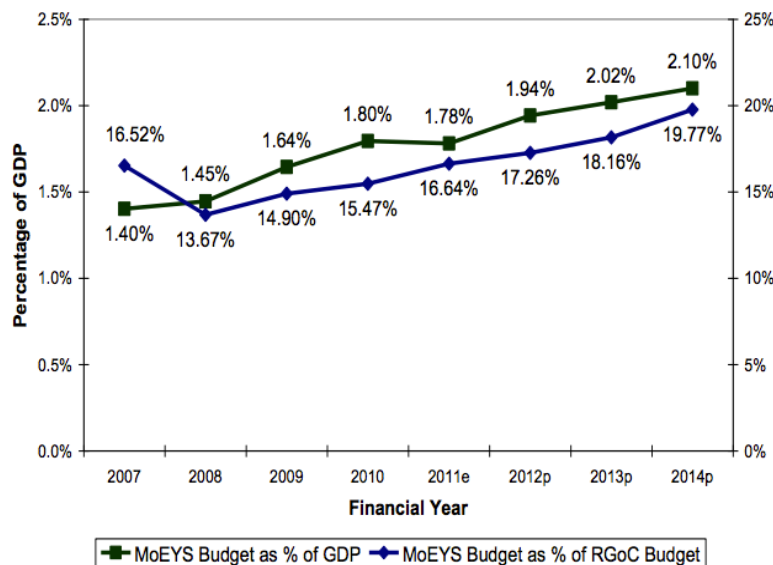
2.2 Political Background

Cambodia has gone through serious civil wars for more than two decades when the heaviest tragedy was “The Genocide” during the Pol Pot regime from 1975 to 1979. The war killed about 3 million people and completely destroyed the education system (Dunnett, 1993; Dy, 2004).

After the genocide, there were still civil wars haunting the people until 1998 when the nation experienced the full peace. Ayres (1999) stated the education system was restored and the new national policies were established for human resource development and education.

At the present, Cambodia tried to modernize its education system that can strengthen the social and economic development. Education is seen as main priority and major key to achievement of the country long-term goal to build peaceful nation, political stability, economic growth and sustainable development (Vuthy, 2008). The government has set out the prioritized polices that improve the education system: (1) equitable access to educational services, (2) quality and efficiency of education services and (3) institutional development and capacity building for decentralization (MoEYS, 2005). For instant, the 9 years compulsory for basic education has been implemented and children can access to free education from primary to secondary schools. The current government has also demonstrated the decentralization on education by enacting the decision making to local communities; however, it was not successfully implemented the new structure that reinforced its authority, limited knowledge and implementation. For example, when the financial budget and administrative responsibilities have been decentralized, the curriculum development remained highly centralized (UNESCO, 2011).

Figure 3: Public Expenditure on Education Sector By GDP



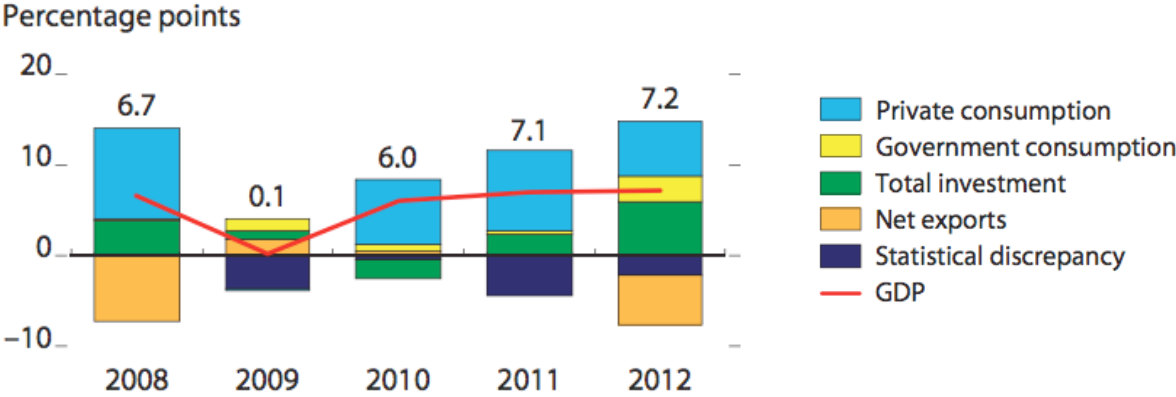
Source: ADB (2014). p.7

The projection of the government expenditure is in the positive trend for education sector from 2007 to 2014 despite a slight drop in 2008. There is a gradual increase in budget from about 14% in 2008 to around 20% of the public expenditure in 2014, accounted for 2.1% of the current GDP, which equal to \$335 million for academic year 2014-2015. This increase appeared favorable and is fulfilling the lack resources of the education demand in Cambodia (ADB, 2014).

2.3 Economic Background

Cambodia is listed the least developing county and poor country in the world reported by United Nations. There are considerable percentages of people living below poverty line: 41% lived on less than \$2 estimated in 2011. It still remains in poverty line positioning at 136 out of 187 countries in Human Development Index report (World Bank, 2014). However, Cambodia’s economic has grown over the last decade reportedly at 7.2% of Gross Domestic Production (GDP) in 2014 driven by textile industry, construction, agriculture, tourism and service sectors.

Figure 4: Gross Development Product of Cambodia



Source: ADB (2013). p.218

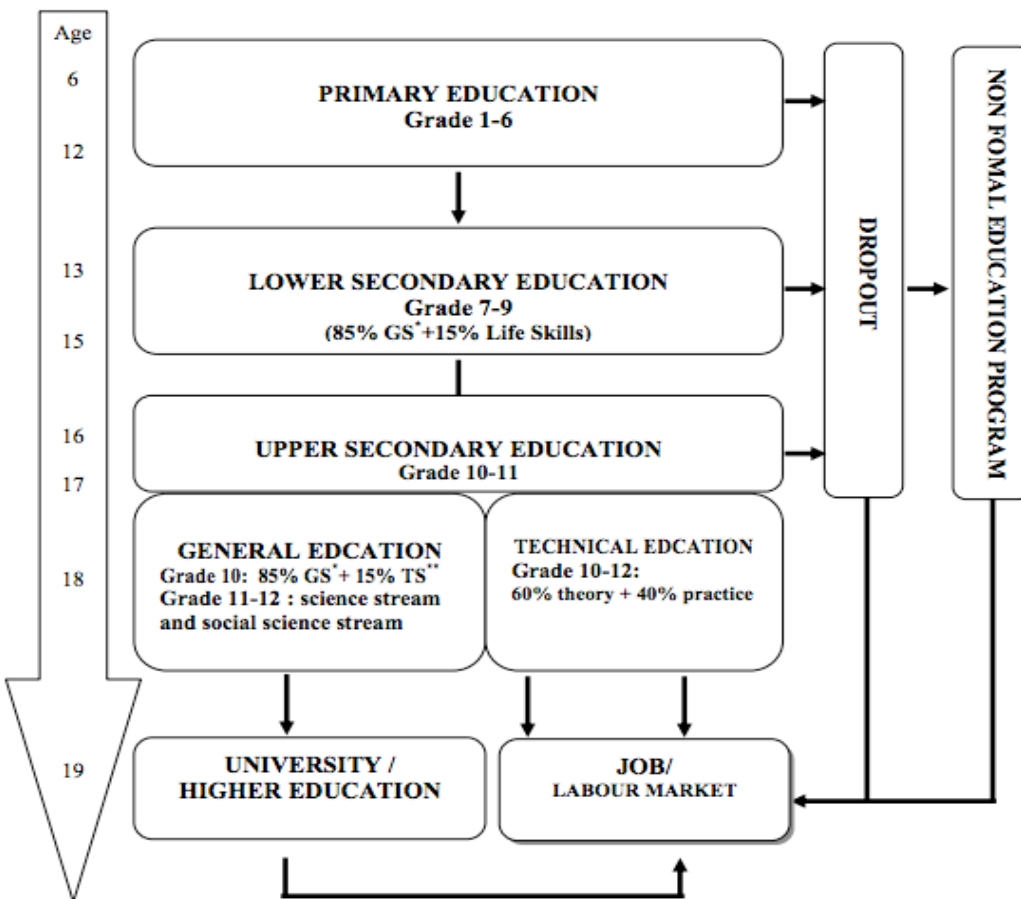
The GDP per capita has increased from \$460 in 2005 to \$900 in 2011, and approximately \$1,000 in 2014 (UNDP, 2014). In this regard, Cambodia has made a positive growth over the last two decades due to the restoration of peace and security, large public and private capital inflow, economic openness and fairly stable macroeconomic situation, and its dynamic neighborhoods cooperation. Despite of the growth, there are many challenges and social issues for Cambodia to

address. Youth represents around 35% of the population that is the manpower for the country economic. It is about 300,000 youths entering labor market every year but they do not meet the need of the market requirement (OECD, 2013).

2.4 Education System

Cambodian governments have made numerous efforts to provide accessibility for the nine years of compulsory and free schooling in accordant to Cambodian Law of Education in 2007 (Dy, 2004). The Ministry of Education, Youth and Sport (MoEYS) operates the education system that reformed the new formulation of formal education is 6+3+3 that consists of primary school (6 years), lower-secondary school (3 years) and upper-secondary school (3 years) according to (MoEYS, 2009). The figure shows the education system:

Figure 5: Cambodian Education System



Source: OECD (2014). p.103

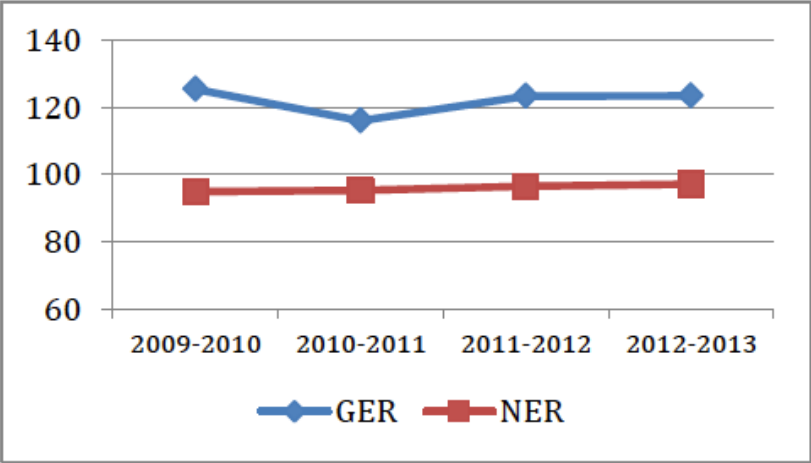
The general education service is giving to over 3,000,000 students with a number of 80,000 teachers in academic year 2007-2008. There have been 5,000 new teachers trained every year adding up to the existing number to meet the lack of teacher resource (MoEYS, 2010). In primary school curriculum, the core subjects are mathematics, science, history, geography, civics, ethics, languages, hygiene, and drafting. The medium instruction is Khmer language and English language is started later in grade 4 as a subject. The aims of the core subjects are to build children’s knowledge of basic science principles, languages ability, awareness of national identity, understanding morality and civic responsibility (Vuthy, 2002).

3. Access, Internal Efficiency, and Equity Analysis

3.1 Access to Education

The access to quality of education to primary education is still challenging in Cambodia, particularly the obstacles in some regions to due individual issues, family economic problem, and cultural constraint and less support from the government. To support the EFA goal, MoEYS (2014) described that Cambodian government has struggled to promote enrollment rate for a decade; as a result, it experienced significant growth of the Net Enrollment Rate (NER) at the national level.

Figure 6: Enrollment Rates in Primary Cycle



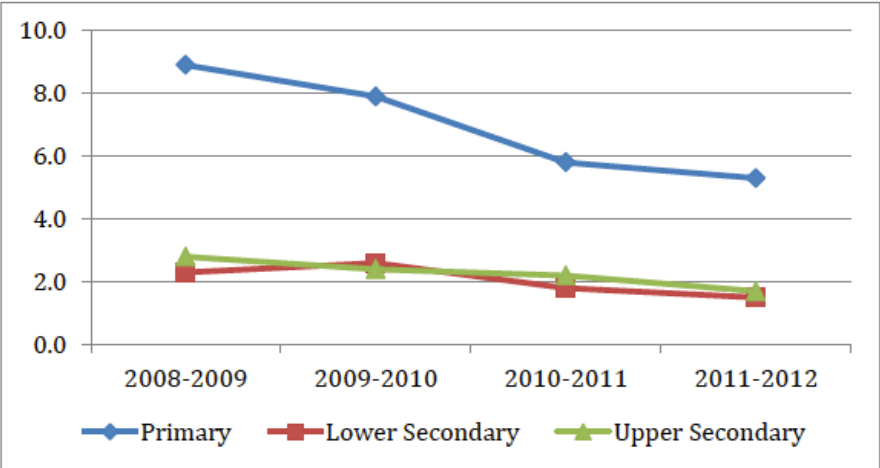
Source: MoEYS (2014). p.4

The figure 6 indicated the NER increased to 97% in 2012-2013, showing almost every children within the group of age primary education is enrolled and closing the enrollment problem. Moreover, the Gross Enrollment Rate (GER) was also reported at 120% in the same period. UNESCO (2014) explained the increase reflected the free enrollment, improved community participation, comprehensive enrollment campaign, and the new establishment of primary schools nearby. The figure showed the government has achieved the enrollment rate in the last three year. UNDP (2013) reported that the gender balance for the above enrollment showing only 1% difference between both sexes. In the same case, in the rural areas across provinces also showed 1.7% similar between gender parity. However, the small percentage of enrollment is concerning the children from ethnic minorities and with disabilities. Cambodia has estimated 20 ethnics groups, where majority of them live in the isolated and mountainous areas in the northern part of the country. The disable children also have difficulties to study and stay in the class (UNICEF, 2012).

3.2 Internal Efficiency

The internal efficiency can explain how success of the system is giving students by using a human resource and finance to reduce repetition rate to a minimum. Despite the fact that the enrollment rates almost reached the target, there are still some problems in the education process such as repetition, early dropout, completion, and survival rates for primary level.

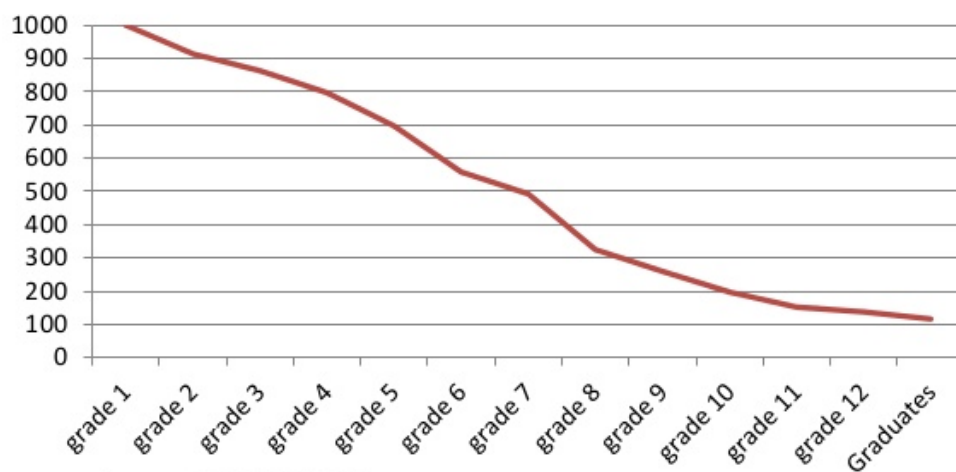
Figure 7: Repetition Rates by Levels of Education



Source: MoEYS (2014). p.6

The figure 7 showed the decreasing number of repetition from primary to secondary levels from 2008-2012. In primary cycle, the number dropped from 9% in 2008 to around 5% in 2012 similarly with the secondary levels that were on the same downward trend (UNESCO, 2014). On the other hand, in some provinces, the repetition remained higher than 10%, which is considerably the wastage of education investment. In addition to this matter, the dropout rate at grade 1 was around 10% in 2013 decreased from 15% in 2003. This dropout issue has been slightly improved to due the current implementation of scholarship program offering school meals, new school establishment, participation with communities and encourage children, especially girls to return to school (MoEYS, 2014). However, there are other serious problems for the primary level are the school completion and cohort survival rates.

Figure 8: Cohort Survival Rate of Student by Grades 2012-2013



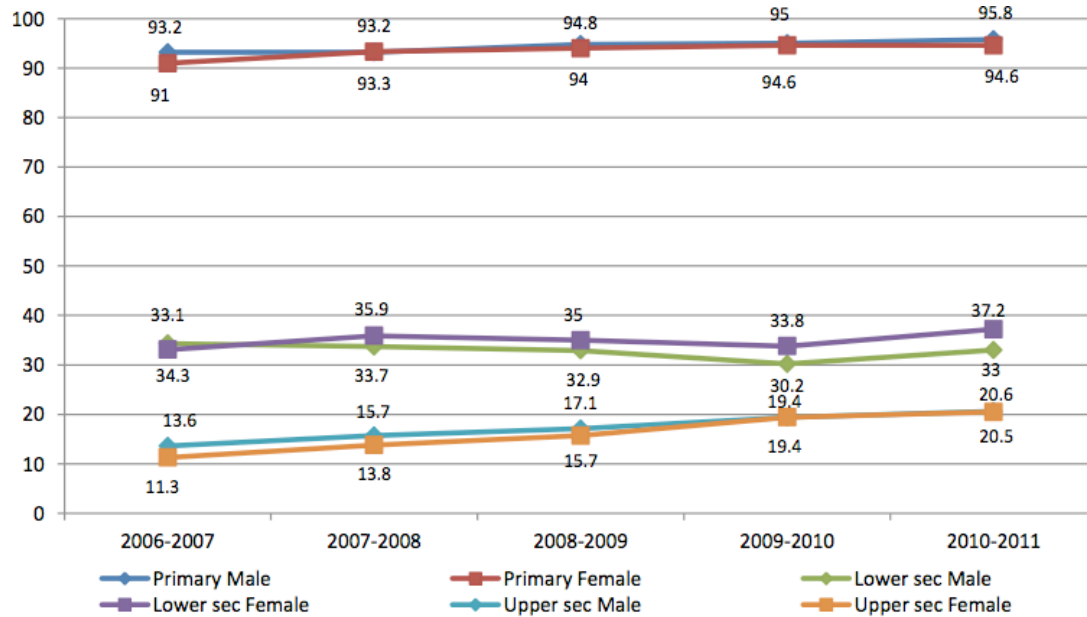
Source: Kuoch (2014). P.9

The figure showed a significant increase of completion rate from 47% in 2004 to 87% in 2013, which jumped about 40% improvement. However, not all of the completion number was able to continue their education to the next level although there have no national test in this point (MoP, 2013). The transition grade from 6-7 is problematic. There was a substantial drop in enrollment rate at lower secondary school in 2012-2013 when around 87% passed out from primary cycle; unfortunately, only about 53% attended the lower secondary stream. It is likely related to poverty and low supply of education and school distance to lower secondary schools in some areas, inhibition of over-age students with the younger, and poor family background (UNDP, 2013).

3.3 Equity

The percentage of both male and female enrollment has increased almost equal in number. There is a similar enrollment for both sexes in all in all cycles. The figure below shows the national net enrollment rate by gender and cycle between 2006-2011:

Figure 9: Enrollment by Gender



Source: USAID (2011). p.9

The figure shows a remarkable data of net enrollment in primary cycle by gender parity increased steadily from 2006 to 2011 where boys and girls are almost equally enrolled in the basic education. However, in the transition point between primary and lower secondary cycle, the number dropped dramatically from about 96% to about 38% in 2010-2011, indicating the high percentage of primary school children in both sexes did not enroll or continue in the lower secondary level. The figure also presents low disparity in enrollment between both sexes in primary and upper secondary cycle. There is an increasing trend of female enrollment in the last five years. The NER of female students in lower secondary cycle is even higher than male. For instant, the number increased from about 11% in 2007 to 20.5% in 2011 at upper secondary level (USAID, 2011). However, there is still a gap between enrollment in urban and rural and at higher levels of education according to other report by development agencies.

4. Quality, External Effectiveness, Costs & Financing and System Management

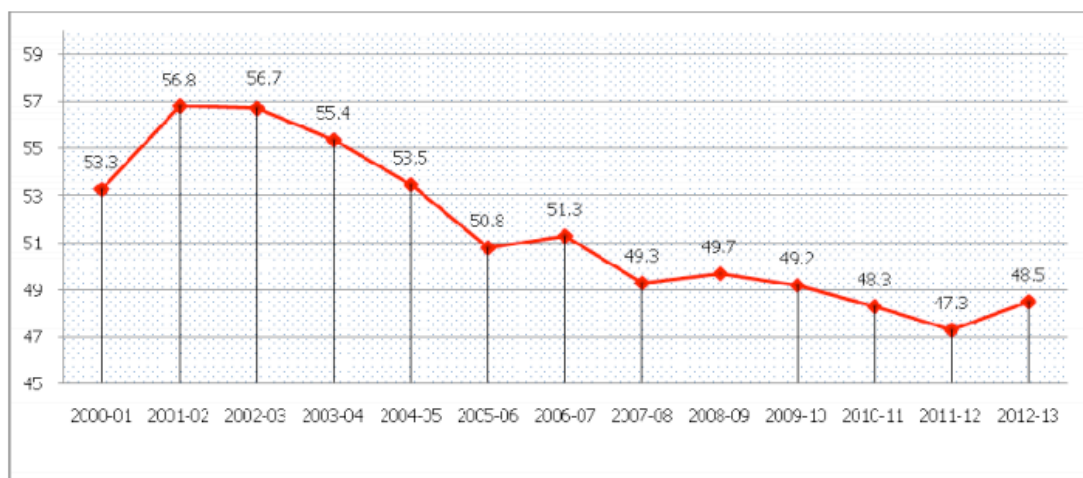
4.1 Quality

The analysis of quality of education system is the quality of input provided (human resource, materials, environment), process that transforms the inputs into results (teaching/learning practices, interactions administration and stakeholders), and the outcome obtained by the learners (acquisition of knowledge, skills, values and attitudes).

4.1.1 Teacher Resource

The totally number of primary school teachers is 44,840 with the pool of primary students around 1.8 million in 2012-2013. The qualified teachers represented 99% in 2013, which has increased compared to 97% in 2000. According to UNESCO (2014), the overall number of primary school teachers has increased about 15% during 1997-2003 in line with the increase in enrollment rates in the same period. Around 2,000 to 2,500 new primary school teacher have been trained per year to supply the demand (MoEYS, 2014).

Figure 10: Student-Teacher Ratio



Source: UNESCO (2014). p.14

The figure indicated the downturn of pupil teacher ratio for the last decade. The highest ratio was about 57:1 in 2001-2012 and continued to drop down to the lowest about 17:1 in 2011-2012; however, it went up slightly to around 48:1 in 2012-2013. This number is considerably higher than countries in South Asia that stood around 36:1 in the same period (World Bank, 2014).

CITA (2013) reported the teacher shortage in Cambodia, which needs around 54,335 primary schools teacher to provide the education service at the present. The new teachers should be deployed to the remote and disadvantaged areas across the country.

The education expenditure is allocated about 75% to teachers salary and 25% went to administration tasks and others (MoEYS, 2014). However, it was reported that the basic salary for teachers is relatively low compared to the expense and living cost in the country. The basic salary for pre-school teachers is \$31/month, primary school teachers \$50/month, lower secondary teachers \$70/month, and upper secondary teacher \$100/month although there has been significant improvement of salary reform. The figure below shows the teachers' salary compared with GDP in the region:

Table 1: Primary Teacher Basic Salary by GPD in Southeast Asian Region

Primary Teacher Basic Salary & GDP 2010²⁴							
	Cambodia	Laos	Vietnam	Thailand	Malaysia	Indonesia	Philippines
Annual Salary²⁵	\$660	\$468- \$540	\$1,404	\$5,820	\$7,944	\$2,851	\$3,696
GDP per capita	\$795	\$1,177	\$1,224	\$4,608	\$8,373	\$2,946	\$2,140

Source: CITA. (2011). p. 10

It can be seen that the teachers' salary stood at \$660 in Cambodia that was less than the GDP per capita \$795 in 2010. This salary rank was relatively low compared to the neighboring countries such as Vietnam \$1,400, Thailand \$5,820 in the same period. In this regards, the teachers' salaries still fall behind the cost of living and the inflation of the economic in the country. CITA (2011) stated that public school teachers received low paid, less support and working under-resourced, corruption, nepotism, poor leadership and lack of teachers' voice are the demotivating factors.

4.1.2 Material Resource

Teaching and learning material such instructional resource, textbooks, examination, toilet and other supporting equipment are the second major expenditure after the salaries and wages. To improve quality of basic education in Cambodia, there has been extensive investment in textbooks production and distribution. The government has focused on increasing the budget on providing free textbooks and material for both primary and secondary level. The table below shows the textbook ratio in primary school:

Table 2: Textbook Ratio in Primary School

Grade	2010-11	2011-12	2012-13
Grade 1-3	2.8	2.7	2.99
Grade 4-6	3.6	3.5	3.85

Source: UNESCO (2014). p.44

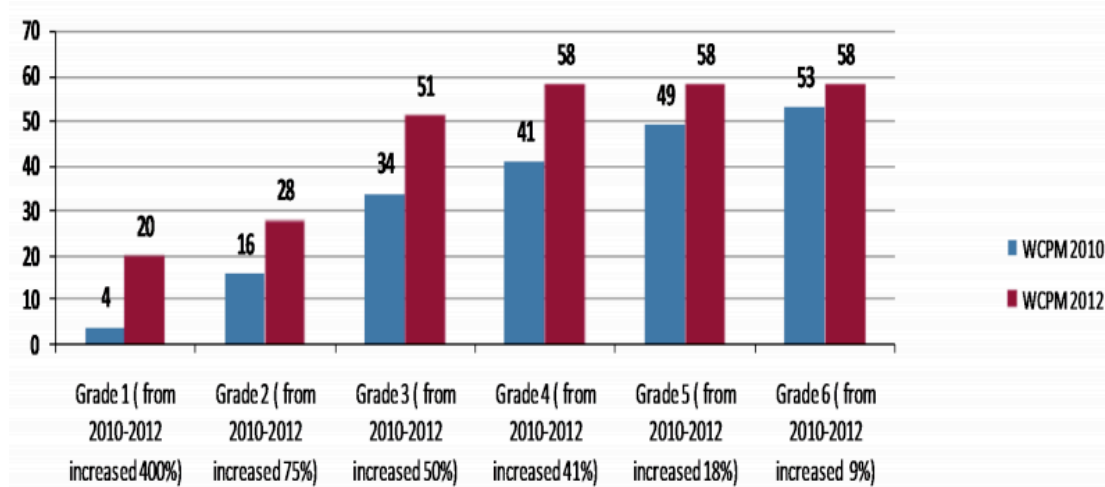
The table shows the slight increase of textbooks ratio in primary school from 2010 to 2013. All primary school students from grade 1-3 received 3 textbooks per pupil and 4 textbooks per pupil for grades 4 to 6 in core subjects. However, teachers' guides supplemented the rest of the subjects and other learning material such as posters, extra reading books, and equipment are distributed to the local schools across the country.

Besides the textbooks, the access to toilets and clean water are another concerning problems. The number of toilet are still shortage mostly in lower levels: 25% in pre-schools, 82% in primary schools, 63% in lower secondary schools, and 98% in upper secondary schools in academic year 2012-2013 (UNESCO, 2014). Moreover, the clean water was unevenly distributed across the country reportedly available only 35% in preschools, 59% in primary schools, 39% in lower secondary school and 63% in upper secondary school that have access to clean water. Both toilets and clean water tended to have lower percentage in lower levels due to are the remote locations and rural areas.

4.1.3 Achievement and Learning Outcomes

Student achievement is general reflected the input and process that impact on the performance. Cambodian students' achievement at the primary level is measured by national program called Early Grade Reading Assessment (EGRA), which has been advised by international specialists and development partners. The figure below shows comparison of reading fluency in words per minute:

Figure 11: Early Grade Reading Assessment in Primary School



Source: Kann. (2014). p.24

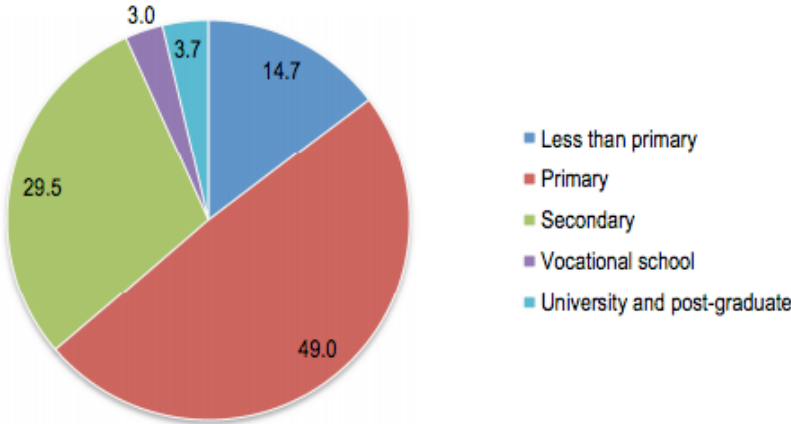
The figure shows the comparative test result between 2010 and 2012 from grade 1 to 6 base on reading efficiency. The overall test scores in 2012 were significantly higher than the scores in 2010, showing the number of students were able to read syllables and texts with understanding that increased at all grades. However, in general the reading skill among primary school children was considered poor below the average and showed small progress in improving score. The reasons were relevant to most complex Khmer language, lack of suitable textbooks, high level of illiterate parents not encouraging reading habit, and less access to library (Kann, 2014).

4.2 External Effectiveness

The investment in education generally impacts on the social and economic development from individuals to society with the indicators of employment rates, health status, women fertility and so on. According to ILO (2010), the number of literates among adults jumped to 76% and those who completed primary and secondary levels has increased dramatically. For instant, there has been a positive change in Cambodia's labor market where the workers have improved the

education levels in the recent years. It can be noticed that the adult proportion aged between 15-29 years is made up of 67% of the whole population in which a large number of them has involved in some forms of employment. Of this number, there are around 51% working in agriculture, forestry and fishing, 20% manufacturing, and about less than 30% work in service sectors such as selling, construction, and transportation (ILO, 2013). The chart below show the youth labor force by level of education:

Figure 12: Young Employment by Education Level



Source: ILO. (2013) p.15

The number of young workers obtained at least primary education that shared 49% in the labor market while about 30% holding secondary qualification. However, there is around 15% of the labors have less than primary education where they find it more difficult to find jobs compared to those having primary or secondary education (ILO, 2013). In the same report, there is still a significant number of unemployment in Cambodia due to the qualification mismatching. It is still one of the concerning problems for many young workers, showed that 46% qualification mismatched particularly for under-educated and over-educated among Cambodians with no education (4.8% unemployment) and young Cambodians with university education (3.8% unemployment), showing the lack of basic job skills, standard training, on-the-job training, youth apprenticeships, and quality of education.

4.3 Costs and Financing

The education sector is funded by the government and also donated by many development partners. The education shred about 20% of the national budget and 75% is allocated to teachers' salary costs and 25% spent on administration and operational tasks (MoEYS, 2014). Around 82% of the education budget provided to provincial level and 18% offered at the national level (ADB, 2014). For the annual budget allocated to subsector: 1% for preschool, 75 % for primary school, 11% for secondary school, 5% for tertiary levels, and 8% for other types of expending (UNESCO, 2008).

Adding to this budget, Cambodian also received the international support around \$89 millions for the operational tasks in 2014. Recently, the government is required to spend \$1,359 to produce one basic education graduate, \$560 for one lower secondary graduate, and \$372 for one primary graduate (ADB, 2014). The table below shows the cost within subsector:

Table 3: Education Expense per Gradate

Costs incurred within the subsector	Present System			Reformed System		
	Primary	Lower Secondary	Basic Education	Primary	Lower Secondary	Basic Education
Student Survival Rate	55.2%	51.2%	25.7%	61.4%	62.2%	34.8%
Years of input per graduate	9.3	4.9	24.9	8.4	4.2	19.0
Total MOEYS cost per graduate^a	372.26	559.14	1,358.74	342.38	489.16	1,093.79

To improve the education system, the education policy has been reformed on a pilot study on-processing; however, the household costs by parents are reportedly 20% greater than the costs borne by the government which was one of the factor pushing dropout rate.

4.4 System Management

The capacity and effectiveness of the government structure in education management, planning and implementing the education services can be done through analysis of major strength and weakness of the system. The indicator can be percentage of staff qualification, effective audit, and informational technology infrastructure. The national administration is the central body handling administrative affairs at municipal, provincial, and district levels. MoEYS is responsible for national education policies, planning, development, regulation, staffing and

education training service. Currently, there is totally 110,192 education staff including teaching staff 82%, non-teaching staff 12%, and administrator 6%. For instant, the number of primary school teachers who do not have high school diplomas comprised of 56% and the number of administrators who have bachelor degree is around 12% and the percentage of staff who are trained the computer course is only 3.1% in 2012 (MoEYS, 2012).

The challenges for the government are the large number of insufficient staff and professional development opportunities for both teachers and administrators. The government has promoted the personnel development program in a recent years but the low compensation given to the participants was the demotivating factor. UNESCO (2011) stated that around 93% of teachers held second jobs added up to their teaching career just to survive, producing shortage of staff. Phin (2014) pointed that the weakness of dealing the shortage of qualified teachers is one of the major constraints to achieve the EFA goals where the education system depends on quality teachers, effective system and learning environment.

The effective system works in repose to the accountability mechanism. World Bank (2007) indicated the weakness of auditing assessment within the broader context of Cambodia's institutional framework and the quality of corporate financial report. The accounting and auditing framework suffered from the inconsistency of different national and international law. For example there has been lack of clearer understanding of professional accountants, inadequate technical capacities and implementation guidance (UNESCO, 2011)

5. Priority Problems and Recommendations

5.1 Enroll and Retain Children

One of the challenges is the access of marginalized group of children to education such as disables and unreached proportion in the remote area to be enrolled more in the education system. According to International Handicap (2009), Cambodia is having 4.7% of the total population impairment and these groups have no support to study by parents and community as there was seen to have no value educating disabled children. Junkala (2008) wrote that special education could contribute to development classroom organization, cognitive, behavior,

assessment, school culture, and parent involvement. On the other hand, Cambodia still faces problem with dropout rates and seriously in the cohort survival rates between primary and secondary cycle.

Recommendation:

Widening enrollment policies among marginalized children should be addressed by the government at the national level. More children from disadvantaged groups should be equally enrolled in schools. To include the groups, scholarship should be given to children to be able to afford the education and shared the cost borne by parents. The scholarship does not ensure only real free registration fee but also being able to cover the expenses on study materials, transportation fee, proper uniform that should be expanded through primary schools. The government should focus on special education for disabled children who need more support than the rest. This will also result in promoting the school completion and increase survival rates. In this case, teachers should be able to identify those at-risk students who are likely to drop from school and provide them more intensive care of learning supports. Encouraging communities and parents to value the compulsory education of 9 years schooling through campaign and particularly promote the enrollment rates at lower secondary level to promote the survival rates. The appreciation and awareness can play important roles which parents and community can take more responsibilities to encourage children regardless of their physical, economical and ethical background to continue the study to the next level.

5.2 Recruit and Support Teachers

The shortage of teacher resource was another challenging factor the government needs to address and meanwhile improve the teacher living conditions in Cambodia. There is a lack of teacher deployment across the regions mainly in the low economic area when the number of students increased in primary level due to the current increase in enrollments. On one hand, it can be noticed that more than half of the primary school teacher population did not have secondary school qualification that generally concerned the limited ability to educate the students. Despite some training and development provided to this proportion, the problem was not improved. Moreover, the teacher standing of living is another issue that should be considered. The current teacher income was very low significantly below the GDP per capita and relatively lower than many countries in the region.

Recommendations

In responding to the teacher shortage, a number of new teachers should be recruited to supplement the existing ones. According to CITA (2014), there are about 10,000 teachers should be trained and put into the education system in balancing the student teacher ratio. The similar suggested also made around 36:1 ratio by World Bank to improve the better quality of teaching and learning. There is ample evidence showed that having enough teachers to avoid the large size class is the strong determinant of students learning which is a part of promoting quality of education. OECD (2012) suggested that the main reason for the gap in quality of education is the shortage of well-trained and well-supported teachers, who determine whether and how much children learn. However, the government needs to screen the qualified teachers who hold a higher qualification than their teaching level. At least primary school teachers should have completed secondary degrees and similarly the secondary school teachers should have higher degree that prove their competence and necessary knowledge for the children. For the existing teachers who do not meet the requirements, training and development should be given to upgrade their qualification to secondary school degrees or higher education as part of the life-long learning. The training program itself should be more attractive by providing good incentives and improve teacher salary for those who meet new requirements. It is important to ensure all primary school teachers complete secondary qualification at highest percentage. Additionally, the standard living of both old and new teachers should be raised by increasing the amount of basic salary at least the same or a little higher than the current GDP per capita. The raise in teacher salary will generally promote the living standard, status in society and motivation for teachers to focus on their teaching career, not to worry about the second job or earning extra besides teaching.

5.3 Quality of Primary Education

The third priority is concerning with the quality of education at primary level promoting reading ability, learning materials, teaching methods and learning foreign language. The adult literacy rate in Cambodia is still a problem reflected by weakness of education system which indicating children ability to read and write. As discussed early, reading skills was poor and the factors that influenced the low performance were related to the lack of textbooks, less access to library,

illiterate parents without encouraging reading habit. The method of teaching has moved from the traditional approach to teaching reading, which placed another challenge for teacher to improve their skills. In addition, English language is being taught at grade 4 that challenge the number of English teachers and more textbooks for the children.

Recommendations

In order to improve the quality of education in the primary school level, the government should focus more on teaching reading at the early grade by developing another intensive program on reading skills. Most importantly, the teaching and learning material should be fully supported. At least one teacher should have one reading textbook and every child from grade 1 to 6 should also have one across in all primary school. The teachers should provide more assistance on poor children. To achieve this, the close consultation between teachers, parents and community to ensure the reading skills improve. Similarly, the government, development partners and relevant stakeholders should encourage the reading habit among children by building more library at schools mainly for disadvantaged children in the remote area. It is very possible to provide mobile library for marginalized children. Regarding the foreign language, more study material should be given and teacher should be trained how to teach the young children to acquire new language that has just implemented.

5.4 Student Health

One of the important issues that ESD did not address was a student health program. Cambodia has faced the challenge of health problems such as malaria, dengue fever, HIV/AIDs, malnutrition and poor sanitation amongst children across the country. These problems have been paid less attention by the government and communities for a while. UNICEF (2013) wrote that 50% of the population in rural area does not have access to clean water and 66% have no access to sanitation. Around 22% of schools are running without toilets and even the primary schools with toilets 30% do not work. This has exposed children to diseases and infection in many cases. Moreover, there are 28% of Cambodian children are underweight and 4 out of 10 are stunted. These challenging problems can be supported and taken responsibility by school level via health education program across the country.

Recommendations:

The government should pay attention in raising health condition in the primary school level. By working with the public health sector and other development partners in dealing with malnutrition and stunted issue suggested at the beginning of grade 1. Some kind of vaccinations, multi-vitamin, intestinal parasite medication should be given to students and keep the record for next follow up. In the region where facing more malnutrition problem, a free breakfast project should be provided particularly in the remote area. The school can observe the physical development by height and weight so that children can be identified the problem and improved the development. Moreover, to ensure the sanitation, 100% of toilets should be built in every school from pre-schools to upper secondary levels; in practical, the toilets should be working well. Every primary school should implement environmental and sanitation program that teach children about the basic health including hygiene, diseases, danger of using drug, natural disaster and so on. The health education programs such as the HIV/AIDs prevention, reproductive health, infectious diseases are essential to deliver to children as a part of their life skill and general knowledge. Teaching children how to stay hygiene, proper use of toilet, and first-aid practice when having accidents is beneficial for them to understand broader about their health problem. In line with the sustainable development concept in education, the social and environmental involvement should be taught early in primary schools by building the knowledge about climate change, waste control and planting the tree around the community where they live.

5.5 Financial Accountability

The government spent \$335 million on education sector shared from the public expenditure, which was only 2.1% of the GDP. This rate is relatively low to many countries in the region in order to improve the better access and quality of education in all levels. However, how to use this amount is effectively used depend on the capacities of financial management of the education sectors. The effective public financial management requires the demonstration of linkage between resource and result. However, the auditing assessment and quality of corporate financial report were still weak due to the shortage of professional staff who can monitor the implementation, solve the technical problems and make decision on how to use the funding and lack of computer skill training program.

Recommendations

In this case, the government should firstly increase the public expense on education to at least 4% of the GDP and consecutively increase to 6% that is the standard level of education suggested by international organizations. Secondly, to be effective in using the budget, the government should improve the auditing and monitoring system, inspecting financial accountability from the national, provincial and district levels. To do this, more effective staff should be trained to be more professional in the in area. The training program is to develop the technical skills related to financial report and responsibility for maintaining the accounting procedure to ensure the accurate and timely financial statement. When internal audit is not effective, the government can seek the technical assistance for the external audit to ensure the accountability and transparency of using the budget. The accounting system should be improved with the support from new technology and development. In this case, the number of IT training program that support the financial management are necessary needed for the administrative staff to improve the skills and competencies..

6. Conclusion

In a nutshell, Cambodia has struggled to promote the access and quality of education in responding to the local needs and international mainstream of education goals. In general, there are number of positive progresses being made in term of enrollment rates and gender parity; however, there are still major issues for Cambodia to cope with such as the equal access, dropout, survival, lack of teacher resource, quality of learning, shortage of toilets and so on. The current issues need the country to invest more input in term of financial and human resource such as teacher resource and infrastructure in order to achieve the education goals. The education in Cambodia has its long way to go and this cannot be solved with one single dimension but the whole system and dynamic resource working dynamically to develop itself under time and available budget.

Reference

- Ayres, D. (1999). *The Khmer Rouge and education: beyond the discourse of destruction*. *History of Education*, 28(2), 204-209. <http://dx.doi.org/10.1080/004676099284744>
- ADB (2014). *Third Education Sector Development Program: Economic and financial analysis*. Phnom Penh Asian Development Bank. Retrieved on December 13, 2014 from <http://www.adb.org/sites/default/files/linked-documents/43260-013-cam-efa.pdf>
- ADB. (2013). *Asian outlook 2013: Asian's energy challenge*. The Philippines: Asian Development Bank. Retrieved on December 10, 2014 from http://www.adb.org/sites/default/files/publication/30205/ado2013_2.pdf
- Bray, M., & Varghese, N.V (2010). *Directions in educational planning Report on an IIEP Symposium*. Paris: UNESCO, International Institute for Educational Planning (IIEP).
- Coombs, P.H. (1970). *What is educational planning?* Paris: UNESCO, International Institute for Educational Planning (IIEP).
- Chang, G.C. (2006). *Strategic planning in education: Some concepts and steps*. Paris: UNESCO, International Institute for Educational Planning (IIEP). Retrieved December 13, 2014 from <http://unesdoc.unesco.org/images/0015/001501/150191e.pdf>
- CITA. (2013). *Report on world teachers' day 2013*. Phnom Penh: Cambodian Independent Teachers' Association. Retrieved on December 25, 2014 from <http://www.cita.org.kh/File/World%20Teachers%20Day%20Report%202013.pdf>

- CITA. (2011). *Cambodian Independent Teachers' Association Campaigns and Policies (2011-2015)*. Phnom Penh: Cambodian Independent Teachers' Association. Retrieved on December 25, 2014 from <http://www.cita.org.kh/File/Education/CITA%20Campaigns%20and%20Policies%202011-2015.pdf>
- Dy, S. (2004). *Strategies and Policies for Basic Education in Cambodia: Historical Perspectives*. International Education Journal, 5(1), 90-97. Retrieved on December 20, 2014 from <http://ehlt.flinders.edu.au/education/iej/articles/v5n1/dy/paper.pdf>
- Dunnet, S. C. (1993). *Cambodia, overcoming hardship, rebuilding its education system*. WENR: World Education News and Reviews. Spring, 6 (2), 21-24.
- IIEP (n.d.). *The analytical framework of an Education Sector Diagnosis*. UNESCO: International Institute for Educational Planning.
- International Handicap. (2009). *Briefing paper: Disability facts in Cambodia*. Retrieved on December 25, 2014 from http://www.addc.org.au/documents/resources/briefing-paper-disability-facts-in-cambodia_948.pdf
- ILO. (2013). *Labour market transitions of young women and men in Cambodia*. Phnom Penh: International Labor Organization. Retrieved on 21 December, 2014 from http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_221599.pdf
- ILO. (2010). *Labor and Social Trends in Cambodia 2010*. Phnom Penh: International Labor Organization. Retrieved on 21 December, 2014 http://www.ilo.org/asia/whatwedo/publications/WCMS_158511/lang--en/index.htm

- Junkala, J. (2008). *What really works in special and inclusive education: Teaching exceptional children plus*, 4(4). Retrieved December 20, 2014 from <http://escholarship.bc.edu/education/tecplus/vol4/iss4/art2>
- JICA. (2012). *Key gender statistics in Cambodia*. Phnom Penh: Japanese International Cooperation Agencies. Retrieved on December 17, 2014 from http://www.jica.go.jp/project/cambodia/011/news/pdf/20120308_01.pdf
- Kann, P. (2014). *Towards reading for all: Variation in early reading assessment result between rural and urban population in Cambodia*. Retrieved on December 20, 2014 from http://www.uis.unesco.org/StatisticalCapacityBuilding/Workshop%20Documents/Education%20workshop%20dox/Montreal%202014/17.Rural%20urban%20variations%20in%20early%20reading%20assessments%20results%20in%20Cambodia_EN.pdf
- Kuoch. S. (2014). *The 6th expert meeting of the employment and skills strategies in southeast asia initiative (ESSSA) session II: Tackling youth unemployment at the local level- Cambodian Case*. Retrieved on December 24, 2014 from <http://www.slideshare.net/OECDLEED/somean-kuoch-cambodia>
- MoEYS. (2014). *Education strategic plan 2014-2018*. Phnom Penh: Phnom Penh: Ministry of Education Youth and Sports.
- MoEYS. (2012). *Education staff indicator 2011-2012*. Phnom Penh: Ministry of Education Youth and Sports. Retrieved on December 20, 2014 from <http://www.moeys.gov.kh/images/moeys/indicator-and-statistic/192/hrmis-indicators-2011-2012.pdf>
- MoEYS. (2010). *Education sector support program 2006-2010*. Phnom Penh: Ministry of Education Youth and Sports.

- MoEYS. (2009). *Education strategic plan 2009-2013*: Phnom Penh: Ministry of Education Youth and Sports.
- MoEYS. (2007). *National EFA mid-decade assessment reports 2005*. Phnom Penh: Ministry of Education Youth and Sports.
- MoEYS (2005). *Education Strategic Plan 2006-10*. Phnom Penh: Ministry of Education, Youth, and Sport.
- MoP. (2013). *Annual progress report 2013: Achieving Cambodia' millennium development goals*. Phnom Penh: Ministry of Planning. Retrieved on December 20, 2014 from <http://www.mop.gov.kh/Home/CMDGs/tabid/156/Default.aspx>
- Marlin, B., & Sohn, H. S. (2014). A simulation model with verification and validation for time phased education planning in Afghanistan. *Simulation: Transactions of the society for modeling and simulation international* 90 (7) 800–814
<http://sim.sagepub.com.ezp.sub.su.se/content/90/7/800.full.pdf+html>
- NIS (2013). *Cambodia Socio-Economic Survey 2013*. Phnom Penh: National Institute of Statistics. Retrieved on December 23, 2014 from <http://www.nis.gov.kh/nis/CSES/Final%20Report%20CSES%202013.pdf>
- NIS. (2011). *Cambodia Demographic and Health Survey 2010*. Phnom Penh: National Institute of Statistics. Retrieved on December 15 from <http://dhsprogram.com/pubs/pdf/FR249/FR249.pdf>
- NIS (2009). *Press release: 2008 Cambodia population census*. Phnom Penh: National Institute of Statistic. Retrieved on December 15, 2014 from <http://www.nis.gov.kh/nis/census2008/PressReleaseEng.pdf>

OECD. (2014). *Skills Development Pathways in Asia*. Organization for Economic Co-operation and Development Retrieved on 17 December, 2014 from http://www.oecd.org/cfe/leed/Skills%20Development%20Pathways%20in%20Asia_FIN_AL%20VERSION.pdf

OECD. (2013). *Structural policy country notes: Cambodia*. Organization for Economic Co-operation and Development Retrieved on 21 December, 2014 from <http://www.oecd.org/site/seao/Cambodia.pdf>

OECD (2012) 'Does Money Buy Strong Performance in PISA?' PISA In Focus 13, February 2012 from <http://www.oecd.org/pisa/pisaproducts/pisainfocus/49685503.pdf>

Phin, C. (2014). Challenges of Cambodian Teachers in Contributing to Human and Social Development: Are They Well-Trained? *International Journal of Social Science and Humanity*. 4 (5), p.344-348 from <http://www.ijssh.org/papers/376-C00017.pdf>

UN. (2014). *The Millennium development goals report 2014*. New York: United Nations. Retrieved December 9, 2014 from <http://www.un.org/millenniumgoals/2014%20MDG%20report/MDG%202014%20English%20web.pdf>

UNESCO. (2014). *The National Education For All 2015 Review Report*. Phnom Penh: United Nations Educational, Scientific, and Cultural Organization

UNESCO. (2011). *Education and fragility in Cambodia*. Paris: United Nations Educational, Scientific, and Cultural Organization. Retrieved December 10, 2014 from <http://unesdoc.unesco.org/images/0021/002110/211049e.pdf>

UNESCO. (2010). *World data on education 2010-2011. Cambodia*. Bangkok: United Nations Educational, Scientific, and Cultural Organization. Retrieved December 10, 2014 from http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Cambodia.pdf

UNESCO. (2008). *Secondary education and regional education base: Country profile Cambodia*. Phnom Penh: United Nations Educational, Scientific, and Cultural Organization. Retrieved December 19, 2014 from <http://www.uis.unesco.org/Library/Documents/Cambodia.pdf>

UNESCO. (2001). *Educational financing and budgeting in Cambodia*. Paris: United Nations Educational, Scientific, and Cultural Organization. Retrieved December 17, 2014 from <http://unesdoc.unesco.org/images/0012/001261/126148e.pdf>

UNESCO (n.d). *Distance education programme on education sector planning: Education sector diagnosis*. Nations Educational, Scientific, and Cultural Organization. Retrieved December 10, 2014 from <http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Beirut/images/T3.pdf>

UNICEF. (2013). *Poor water and sanitation contribute to high child malnutrition rates in Cambodia*. Phnom Penh: United Nations for Children's Rights & Emergency Relief Organization. Retrieved on December 25, 2014 from http://www.unicef.org/cambodia/12681_20674.html

UNICEF. (2012). *Annual report 2012 for Cambodia*. Phnom Penh: Children's Rights and Emergency Relief Organization. Retrieved on December 22, 2014 from http://www.unicef.org/about/annualreport/files/Cambodia_COAR_2012.pdf

- USAID. (2011). *School dropout prevention pilot program and dropout trend analysis: Cambodia*. Washington, DC: United States Agency for International Development. Retrieved on December 20, 2014 from http://schooldropoutprevention.com/wp-content/files/reports/Trend_Analysis_Cambodia_English.pdf
- UNDP. (2014). *Human Development Report 2014 and Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. Phnom Penh: United Nations Development Programs. Retrieved on December 11, 2014 from http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/KHM.pdf
- UNDP. (2013). *HDI values and rank changes in the 2013 Human Development Report*. Phnom Penh: United Nations Development Programs. Retrieved on December 11, 2014 from http://www.undp.org/content/dam/undp/library/MDG/english/MDG%20Country%20Reports/Cambodia/CMDG%20Annual%20Report%202013_Final%20Draft.pdf
- Vuthy, V. (2008). *Education development in Cambodia 1979-2008*. Phnom Penh: Ministry of Education Youth and Sports.
- Vuthy, N. (2002). Human resource development and training in Cambodia. *Research paper on human resource development and training in Korea and ASEAN countries*. Phnom Penh: Ministry of Education Youth and Sport.
- World Bank. (2014). *Poverty has fallen, yet many Cambodians are still at risk of slipping back into poverty, new report finds*. Retrieved from <http://www.worldbank.org/en/news/press-release/2014/02/20/poverty-has-fallen-yet-many-cambodians-are-still-at-risk-of-slipping-back-into-poverty>
- World Bank. (2007). *Report on the observance of standards and codes (ROSC) Cambodia*. Phnom Penh: World Bank. Retrieved on December 25, 2014 from http://www.worldbank.org/ifa/Cambodia_aa.pdf

Appendices

Table 1. Priority problem and proposed improvement measures (examples)

Priority Problems	Improvement Measures
<p>1. Enroll and Retain Children</p> <p>Ensure all school-age-children and at age-of-enrollment are enrolled and retained to the end of the school year and cycle</p>	<ul style="list-style-type: none"> • Enroll marginalized groups • Provide scholarship to low economic background students • Encourage compulsory basic education among parents and communities
<p>2. Recruit and Support Teachers</p> <p>Ensure enough teacher resource, effective recruitment and training, and increase teacher living standard</p>	<ul style="list-style-type: none"> • Recruit more teachers to meet the increasing demand of students • Revise teacher salary and staff performance appraisal • Provide teacher training program
<p>3. Quality of Primary Education</p> <p>Ensure more students improve the test score, reading skills, and foreign language</p>	<ul style="list-style-type: none"> • Promote early grade reading skills • Support more study materials and build libraries • Change traditional teaching methods • Enhance English language learning at grade 4
<p>4. Student Health</p> <p>Ensure all children improve in malnutrition, access to toilets, knowledge, skills, good health and social responsibility</p>	<ul style="list-style-type: none"> • Provide vaccination, multivitamin or free breakfast • Build toilets in every school level • Prepare instructional guideline to implement life skill program
<p>5. Financial Accountability</p> <p>Ensure the accountability and financial transparency in budget allocation and information technology skill development</p>	<ul style="list-style-type: none"> • Increase public expense for education to 4% of GDP • Train administrator in accounting skills • Increase public financial accountability and the responsibility and the decision-making using funds • Provide computer training program