



Kingdom of Cambodia

Nation Religion King

Ministry of Education, Youth and Sport



GLOBAL INITIATIVE ON
OUT-OF-SCHOOL CHILDREN:
Cambodia Country Study

All Children Learning By 2030



United Nations
Educational, Scientific and
Cultural Organization

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for every child



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ACKNOWLEDGEMENTS

This report was developed by a number of authors. The quantitative analysis of the five dimensions of exclusion in Section 2 was done by James Lee, with support from Chea Huot of UNICEF, the Directorate General of Policy and Planning, and technical support from the UNESCO Institute for Statistics (UIS). The analysis of sector policies in Section 3 was done by James Lee; the analysis of the supply and demand for education in Section 3 was done by Erika Boak and Rachel McCarthy from UNICEF. Inputs were also made by Anastasia Neijhoft, Arnaud Lailou, Anne Lubell and Anna Nordenrot, UNICEF. Overall editing of the report was done by Erika Boak.

Technical support was provided by UIS: Friedrich Huebler, Sheena Bell, Min Busta and Aurélie Acoca, and UNICEF's East Asia and Pacific Regional Office: Jim Ackers, Akihiro Fushimi, Camilla Woeldike and Chemba Raghavan.

H.E. Lim Sothea, the Director General of Policy and Planning, and Mr Oung Borat, the Deputy Director General of Policy and Planning, played key roles throughout the study. On-going leadership and strategic direction was provided by H.E. Nath Bunroeun, Secretary of State, Ministry of Education, Youth and Sport.

PREFACE

The Global Initiative on Out-of-School Children (OOSCI) is a global undertaking between UNICEF, the UNESCO Institute for Statistics (UIS) and national governments to conduct rigorous research on children's access to, and exclusion from, education. Research undertaken as part of this global commitment identifies the profiles of children who are out of school, and key barriers to their participation in education and learning. The global research initiative aims to produce strategic recommendations to make education systems more responsive and inclusive to the needs of out-of-school children. Cambodia has been part of the initiative for several years. This study is the result of intensive collaboration between UNICEF, UIS and Cambodia's Ministry of Education, Youth and Sport (MoEYS).

Cambodia's education system underwent a rapid and far-reaching transformation following the devastating conflict of the 1970s, when school buildings were destroyed; teachers were removed and the education ministry was hollowed out. In the 2000s, MoEYS initiated comprehensive education reforms in an effort to rebuild the sector, culminating in the first Education Strategic Plan (ESP) 2001-2005. The strategic plan has continued to form the basis for essential reforms in the sector, focusing on improving access to education, the quality and relevance of education and fostering stronger leadership and management at the school level. These education priorities are aligned with Cambodia's national development priorities, articulated in Cambodia's National Strategic Development Plan 2014-2018, which prioritizes the development of human resources to strengthen economic growth.

The Out-of-School Children Initiative is welcomed in Cambodia due to the complementary in-depth quantitative and qualitative analysis it provides on out-of-school children, as well as those at risk of dropping out of school. MoEYS has indicated interest in future research in this area.

Throughout this report, Cambodia Socio-Economic Survey (CSES) 2012 is the main data source used. This data source is based on a sample size of 3,600 households. Education Management and Information System (EMIS) 2011/2012 statistics were used in order to be comparable to CSES 2012 data. More recent data sources were not available at the time this initiative was launched in Cambodia, and the report first developed. This is acknowledged as a limitation of this study.

Nonetheless, CSES data reveals that 250,000 children of primary school age were out of school in Cambodia in 2012. This number of out-of-school children represents a significant loss in human potential, for the individual and families concerned, but also for the nation at large. Within the context of ongoing and deep reforms in the education sector, it is hoped this report will inform the development of further policies enabling universal completion of primary education and substantially higher participation in pre-school and lower secondary education, essential to the country's inclusive economic development.



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ACRONYMS

CDHS	Cambodia Demographic and Health Survey
CDRI	Cambodia Development Resource Institute
CEA	Cambodian Economic Association
CIPS	Cambodia Inter-Censual Population Survey
CMDG	Cambodia Millennium Development Goal
CSES	Cambodia Socio-Economic Survey
EGMA	Early Grade Math Assessment
EGRA	Early Grade Reading Assistance
EMIS	Education Management Information System
ESP	Education Strategic Plan
GPE	Global Partnership for Education
IRTAD	International Traffic Safety Data and Analysis Group
JICA	Japanese International Cooperation Agency
KAPE	Kampuchean Action for Primary Education
MENAP	Multilingual Education National Action Plan
MoEYS	Ministry of Education, Youth and Sport
MoP	Ministry of Planning
NAR	Net Attendance Rate
NEP	NGO Education Partnership
NGO	Non-Governmental Organization
NIS	National Institute of Statistics
SDG	Sustainable Development Goal
SES	Socio-Economic Status
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund
WASH	Water, Sanitation and Hygiene

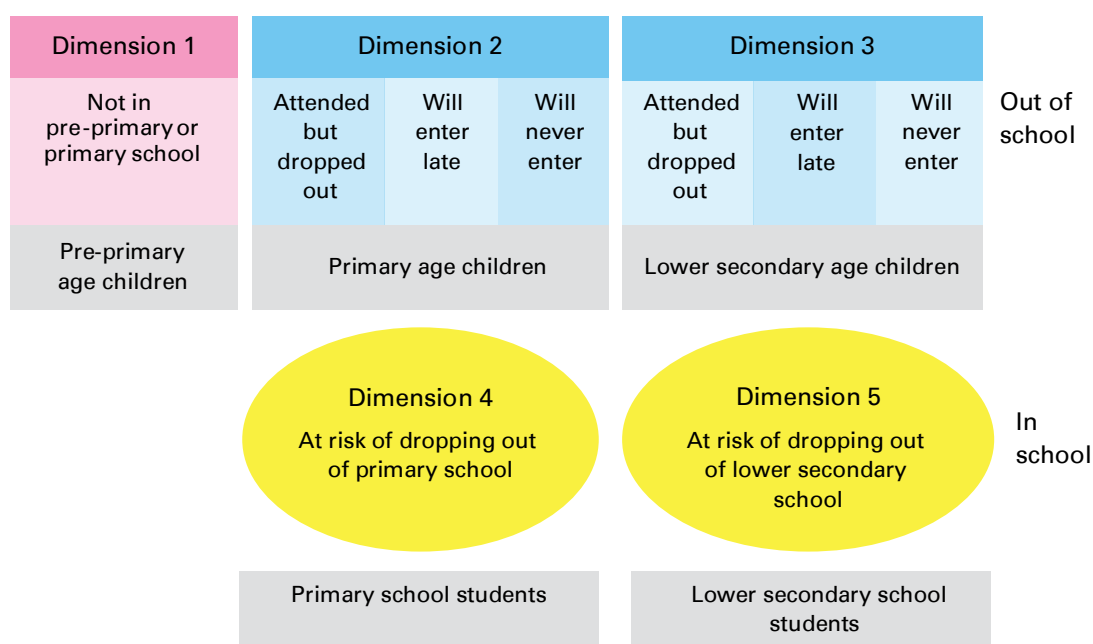
EXECUTIVE SUMMARY

The Global Out-of-School Children Initiative was launched in 2010 to make a significant reduction to the number of out of school children. The Cambodia study is the result of intensive collaboration between UNICEF, the Ministry of Education, Youth and Sport (MoEYS) and the UNESCO Institute of Statistics. The study analyses the proportion of children who are out of school and those at risk of dropping out, it also discusses the supply and demand-side factors affecting their participation in education including national sector policies, governance and financing and the dynamic relationship between push and pull factors affecting children’s attendance and learning.

In line with the global methodology, the Study defines “out-of-school children” as children of pre-primary, primary or lower secondary school age who have either stopped their schooling before completion or never enrolled in school according to the ‘Five Dimensions of Exclusion’:

1. Children of pre-primary school age (5 years) who are not in pre-primary or primary school
2. Children of primary school age who are not in primary or secondary school
3. Children of lower secondary school age who are not in primary or secondary school
4. Children who are in primary school but at risk of dropping out
5. Children who are in lower secondary school but at risk of dropping out

The Five Dimensions of Exclusion



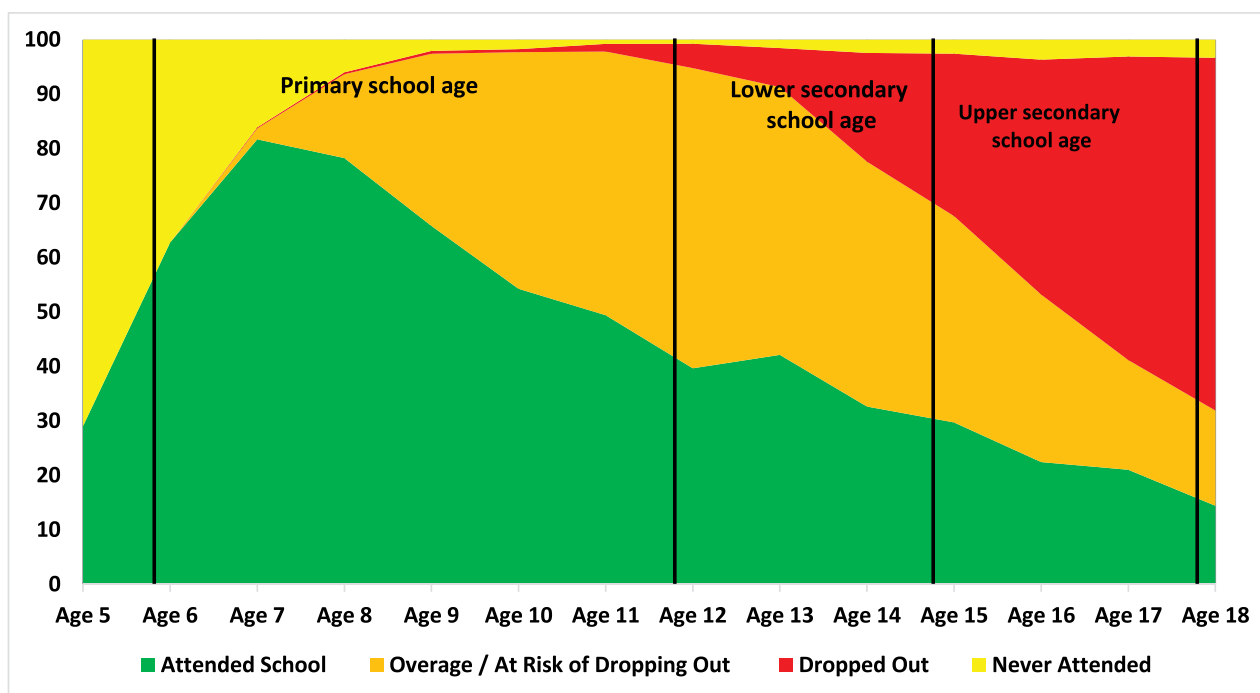
The dimensions provide an overview of children’s attendance in and exclusion from school by age range.

The 2012 Cambodia Socio-Economic Survey (CSES) is the main data source used which is based on a sample size of 3,600 households¹. CSES 2009 data is used when analysing smaller population groups such as by province or ethnicity due to the larger sample size. In addition, the study draws on MoEYS Education Management and Information Statistics (EMIS) (2011/2012)².

Key Findings from the Five Dimensions of OOSC³

The Figure below provides an overview of children’s attendance in school based on their age, according to the five dimensions of the OOSC framework. It shows that between 70 per cent and 90 per cent of children aged 7 to 14 are in school, although a large proportion are over-aged. The highest proportion of children who have never attended school are aged 5, however it is likely that the majority children will enrol in primary school in due course, although many will ‘miss out’ on pre-school. The Figure also shows that the proportion of over-aged children tapers as children reach 14 years and older which also corresponds to the time when drop out increases, showing the linkage between being over-aged and dropping out.

Overview of the Five Dimensions of OOSC by Age



Source: Author’s calculation from CSES 2012

1 This is due to the fact that CSES 2014 data was not available at the time of the analysis.

2 The 2011/2012 was chosen in order to be comparable to the 2012 CSES data. While this data is 4 years out of date at the time of writing, it is acknowledged that the data has not changed significantly since 2011/2012 and therefore the findings are still valid.

3 This study was conducted based on the availability and structure of data in Cambodia and therefore may differ from other OOSC Country Reports. Given that primary research was not conducted for this study, it was not possible to robustly analyse the reasons for the data in the various OOSC dimensions however the dimensions are referenced in Section 3 of the report and, as far as possible, correlations are drawn for possible reasons for exclusion and drop out.

Children of Pre-Primary School Age: 5

- **Over two thirds of pre-primary school aged children did not attend school in 2012.** For those children in school, 18.2 per cent were in primary school and only 10.9 per cent were in pre-primary school.
- The extremely **high OOSC rate of 71 per cent** is likely to be due to in part to the non-inclusion of children attending Community Pre-Schools and Home-Based Programmes in CSES. Nevertheless, the comparatively low coverage of state pre-schools – the largest provider of early childhood education – together with the insufficient demand for pre-school amongst Cambodian parents, remain sizeable challenges for the education system and children’s learning more broadly. Indeed, the high rates of over-age children in primary and lower secondary schools as well as children who have dropped out of lower secondary can be linked to the limited attendance in pre-school.
- **Poor girls in rural areas** have the **least** access to pre-primary education. There is a 46.5 percentage point difference between the OOSC rate of the wealthiest boys in rural areas (at 36.4 per cent) and the poorest girls in rural areas (82.9 per cent). This is likely to be due to the higher concentration of state pre-schools and private pre-schools in urban areas as well as cultural gender norms.

Children of Primary School Age: 6 to 11

- Cambodia has achieved remarkable success in **improving access to primary education** over the past decade and in achieving near **gender parity** amongst primary aged children. The proportion of primary school aged children enrolled in public primary school increased from 91.9 per cent in 2004/2005 to 94.5 per cent in 2014/2015 (higher when enrolment in private schools is included). Gender parity in the primary net enrolment rate was achieved at the national level in 2007. There has also been major progress in reducing total exclusion from education: the proportion of children who had never attended school reduced from 21 per cent in 2004 to 11 per cent by 2012.
- The percentage of **6 to 11s who were out of school** reduced from 23 per cent in 2004 to **13 per cent in 2012**. Children from the poorest quintile are nearly four times more likely to be out of school than children from the wealthiest quintile. Rural areas have a higher OOSC rate (14 per cent) than urban areas (8 per cent).
- The total out of school rate amongst 6 – 11s of 13.2 per cent – nearly 250,000 children – is made up of the following categories: 4.2 per cent drop outs, 80.2 per cent who have never entered school but are expected to enter and 15.6 per cent who have never entered and are unlikely to attend school. In other words, the **majority** of primary aged children who are out of school are **expected to go to school** at a later stage. Late entry to Grade 1 is an outworking of low attendance in pre-school amongst 5 - year - olds. Indeed, 37.2 per cent of all 6 - year - olds have not attended pre-school and have not yet entered primary school which means these children will be over-aged.
- **Girls** from the **poorest quintile in rural areas** are the most likely to be **out of school** (20.9 per cent). Poor rural and urban boys are also susceptible to exclusion while rich rural and urban children are almost fully included in schooling.
- Among the categories of vulnerable children, **children from ethnic minorities** have the highest proportion of children who have never attended school at **37 per cent**.

Children of Lower Secondary School Age: 12 to 14

- Between 2004 and 2012, there was a **modest reduction of out of school children aged 12 to 14** from 13 per cent to **11 per cent** (and a reduction from 14 per cent to 10 per cent for girls). This shows the difficulties of overcoming high opportunity cost of education for this age group particularly as the economy grows. The OOSC rate represents **approximately 107,000 young people**.
- **Fewer boys of the correct age are attending lower secondary school** than girls. The Net Attendance Rate was 31 per cent for boys compared to 35 per cent for girls. In addition, the OOSC rate is higher for boys (12.6 per cent) than for girls (10.0 per cent). The OOSC rate is also over 3 times higher in rural areas at 13 per cent compared to 4 per cent in urban areas.
- **More than half** of children of **lower secondary school age (54 per cent)** were still **attending primary school** due to the comparatively **weak efficiency** of the education system. Nevertheless, there have been major improvements since 2004 when 71 per cent were attending primary school although the 'rate of change' may be too slow to reduce the risk of dropping out by the over-aged children with only 34 per cent attending the correct level for their age.
- **10 per cent of 12 to 14s dropped out of school** (11 per cent for boys), substantially higher than the 1 per cent of children of primary school age, showing again the challenge of compensating for the opportunity cost of education as well as strengthening quality and relevance.
- **Poverty** is a major factor in **exclusion from education** for this age group with **children from poorest quintile almost 8 times more likely to be out of school than those from the wealthiest quintile**. This age range experiences the biggest disparity in the OOSC rate for children in the poorest quintile (24 per cent) and the wealthiest quintile (3 per cent).
- **Poor boys from rural areas** are the most likely to be out of school (at 28.9 per cent) while rich boys and girls in urban areas have an unsurprisingly low OOSC rate of 3 per cent.
- **27 per cent** of children from **ethnic minorities** have **never attended school**.

Children at Risk of Dropping Out of Primary and Lower Secondary School

- The **total** estimated number of **at-risk** students in **primary and lower secondary education – 2 years or more over their age for grade – is 1.2 million**, equivalent to **21 per cent** of the **school going population** – the majority of whom are in primary school. More than 85 per cent of at-risk students are in rural areas.
- Over 40 per cent of children between Grades 3 and 8 are considered at risk of dropping out. **Boys** are particularly **susceptible to dropping out in Grades 4 and 8 while girls are most vulnerable in Grade 5**.
- Children's late enrolment in primary – the Grade 1 Net Attendance Rate was only 42 per cent – together with high repetition rates in the early grades of primary means that many children are likely to be over-age for their grade for much of their schooling.

Key Findings from the Analysis of Supply and Demand-Side Issues Affecting Children's Participation in Education

Policies, Governance and Financing

Cambodia is known to have comparatively strong legal and policy frameworks and this is also true for the education sector. There are strong provisions for ensuring all children have the right to education. Within the ESP, there is also provision for equity-oriented programmes to address the needs of over-age or out of school children although there is room for improving the coordination of the various programmes. One important gap however is that primary education is not compulsory which is a key constraint for educational inclusion.

MoEYS benefits from reasonably strong management capacity, particularly at the national level with a number of strategic plans which strengthen its capacity to identify education trends and take remedial policy and programming actions such as the ESP and EMIS Master Plan 2014 2018. Nevertheless, a lack of published data on children with disabilities in EMIS means they have not been included in enrolment and cost projections leaving them largely invisible in mainstream Government plans and budgets. On a more positive note, recent changes have been made to the organizational structure – with the creation of a Special Education Department – which may help to strengthen institutional systems to address the needs of vulnerable children and OOSC. There is, however, a risk of a disconnect between the strong national policy and programming frameworks and their implementation at provincial and school levels. This is due to weaker capacity and systems at sub-national levels and a lack of discretionary budget for the implementation of programmes which are tailored to the local context. This is an issue that the school-based management reform seeks to address.

In relation to education financing, there has been an encouraging upward trend in the education recurrent budget since 2014 reaching 18.2 per cent in 2016, reflecting the prioritization of education by the Government and its commitment to resourcing the sector's ambitious reforms.

The school financing formula was revised in 2013 providing weighting for small and disadvantaged schools. Nevertheless, the weighting may be insufficient for the equitable distribution of the budget since larger schools continue to receive a larger proportion of the provincial budget. Furthermore, Cambodia's spending per primary pupil is below regional standards. Moreover, in view of the substantial charges which are levied by teachers for school attendance, it is felt that the School Operating Budget (SOB) and teacher salaries are insufficient in spite of substantial increases to teacher salaries.

The extra tuition fee charged outside the formal system is one of the reasons why children are excluded from education and there is a need for improved governance of private lessons. The OOSC dimensions data revealed that poverty is a particular barrier amongst 12 to 14 - year - olds. For mainstream schools, the new emphasis on school-based management may help to address this practice.

MoEYS introduced bold new legislation on scholarships at primary and secondary levels in 2015. The overall allocation rose to \$9.4 million in 2016. Nevertheless, given the extent of the demand-side barriers to education linked to poverty and the opportunity costs, particularly at lower secondary level, the amount and coverage are still limited. This means that scholarships are not yet likely to have a significant impact on national enrolment, drop out or completion rates of lower secondary education.

The Supply of Education

The legacy of the rapid reconstruction of the education system and the swift deployment of new teachers is an under-qualified teaching force today. Given that quality teachers may be the single largest determinant (within the context of the supply of education) affecting children's learning outcomes and their educational promotion, a strong focus has been placed on developing a qualified, competent and motivated teaching force.

The challenge is sizeable – in the future, teachers will need a Bachelor's degree plus one year of training – nevertheless 44 per cent of primary teachers are under-qualified based on current standards (HRMIS 2012 2013). There is a strong acknowledgement of the pivotal role of in-service training and teacher mentoring on teaching practice in the short-term.

Research showed less than 33 per cent of teacher trainees stated a willingness to work in remote schools and teachers in rural areas tend to be less well prepared for lessons than their urban counterparts. Indeed, teachers have been trained under different 'formulas' over time and the rate of development varies from province to province leaving inequities. This translates into lower learning outcomes in small rural schools as well as higher rates of exclusion at pre-primary, primary and secondary levels in rural areas.

The limitations of the teaching force have a direct bearing on the implementation of the curriculum, which while strong at the policy level, is not fully rolled out at the school level. Shortened instructional hours and teacher absence are a major barrier to learning and children in rural areas are again particularly at risk. Furthermore, subtle gender stereotypes may be promoted through certain textbooks. Inequalities in the pedagogy used in certain grades were also identified whereby girls were less confident to answer and pose questions despite the fact that they outperform boys in assessments and exams. This relates to system-wide challenges in embracing interactive teaching and learning methods as opposed to the preferred conventional didactic approach. This is noteworthy since the absence of engaging teaching and learning methods is likely to have a direct impact on students' attendance in school. Indeed the lack of 'fun and enjoyable' student to student interaction in school may be a factor in contributing to children's drop out (No, 2012). The consequences of the absence of gender-responsive pedagogies is seen at all levels of the OOSC dimensions mainly reflected in higher rates of exclusion amongst poor rural girls at pre-primary and primary levels and higher rates amongst boys at lower secondary level. A further key issue is the verbal and non-verbal language used by teachers and between students. While frameworks are in place to protect children, corporal punishment and emotional violence are still a reality in some primary schools and this has a highly detrimental impact on learning, attendance and children's overall development, in particular for young children during the critical early stages of brain development.

Data on learning achievements are also critical when discussing OOSC since children who are learning at a slower pace are more at risk of dropping out. Moreover, research shows that being in school is not a proxy for learning. Early Grade Reading Assistance (EGRA) which sought to address the very low levels of word recognition and basic numeracy in young children through the re-introduction of Chet Chhem (a phonics-based approach) has shown a positive impact on children's learning in target schools. Implementation of EGMA is still in the early stages and greatly needed due to very low levels of proficiency in math. Confirming conclusions above regarding the shortcomings of pedagogy, results in the upper grades of primary show weaknesses in conceptual understanding. These skills are best promoted through exercises, games and problem solving rather than recitation or repetition which tend to be the pedagogy of choice. MoEYS has rightly prioritized children's mastery of foundational literacy and numeracy as the bedrock of their future learning and development.

A comparison of the equated test scores (anchor items) of the national standardized assessment data showed promising improvements in children's learning outcomes. In Grade 3, the average students' Khmer and math achievement increased by around 30 points between 2006 and 2015 which translates to about 0.30 standard deviations. The improvements at Grade 6 between 2007 and 2013 are less visible and indeed scores on Khmer have decreased. This may be due to the slow pace of educational change and the multifarious factors affecting children's learning including the accumulated impact of low quality on children's learning outcomes in the last year of primary. It is significant that most of the decline in the scores was concentrated in small rural schools while the improvements were in small, urban schools echoing other findings of the report.

An analysis of children's learning outcomes by wealth quintile shows that the largest disparities in learning outcomes are in Grade 3 in math with a difference of 19.3 percentage points in the results of children from low and high Socio-Economic Status (SES). Meanwhile by Grade 8, the difference in the results reduced to 10 percentage points, with similar progressions in Khmer. This clearly shows that disparities reduce as children continue through the education system disproportionately benefiting children from low SES. Other data from PASEC reveals that repetition is negatively associated with learning outcomes. The dimensions of OOSC also show that children who are over-age (due to repetition or late entry) are more likely to drop out.

Moving to the 'hardware' of education, a lack of education infrastructure is no longer an important factor affecting children's access at primary level, instead it is the child-friendliness of the school environment, and in particular the WASH facilities which have seen negative trends over the past 6 years with a lack of segregated toilets and hand-washing stations and soap. The absence of WASH is a particular challenge for adolescent girls in both primary and secondary schools. More broadly, it is well documented that poor sanitation and hygiene can lead to diarrhoea and respiratory infections resulting in absenteeism and lower academic performance. The comparative lack of lower secondary infrastructure may partially account for the high proportion of 12 to 14 - year - olds still in primary schools (54.4 per cent) as well as those out of school due to the absence of a "dynamic supply effect" in generating demand for lower secondary education.

Demand Side Barriers to Education

In terms of conclusions regarding the demand-side barriers affecting children's participation in education, poverty remains one of the biggest obstacles to education, with an OOSC rate amongst 6 to 11s of 20.1 per cent amongst the poorest, and only 5.6 per cent amongst the wealthiest children. At the lower secondary level, children in the poorest quintile had an OOSC rate over 7 times higher than the wealthiest quintile. By age 16, more than half of children in the poorest quintile have left school. Moreover, an estimated 20 per cent of 12 to 14s and 47 per cent of 15 to 17s are economically active with the largest share of all economically active children being 15 to 17 and living in rural areas. The biggest 'employers' are agriculture, forestry and fishing. Older children (15 – 17 years) tend to work longer sometimes over 48 hours a week. This helps to explain the high rates of exclusion from education amongst 15 to 17-year olds (see table 3-21 above). This age group is not specifically analysed in this study but deserves attention. Rural children also worked longer than urban children.

Research shows that if a child works over 22 hours per week (at primary or lower secondary level), he or she is more likely to drop out. Nevertheless, as the economy grows and the cost of living increases, a small amount of light work which does not interfere with studies can actually help children to stay in school and offset the opportunity cost. Nonetheless, poor, working children are more vulnerable to being "pulled out" of the formal education system, particularly at lower secondary level.

Migration, which is inextricably linked to poverty, is another major issue affecting children's continuous participation in education with the largest share of migrants moving to Phnom Penh; almost one fifth of migrant children drop out of school and the majority cite the cost of schooling as the reason. Children who migrate may be behind in the school calendar and thus must wait to enrol. This results in being over-aged and increases the likelihood of drop out.

While some progress was made in reducing child malnutrition during the first half of the last decade, there has been little change in reducing malnutrition over 2005 to 2014. 32.4 per cent of children under 5 are stunted and this may partly account for children's late entry to primary school since 65 per cent of children aged 6 -11 who are out of school are considered "too young" for school which is likely to be linked to their height rather than their age. Late enrolment puts children at risk of dropping out. As a result, addressing children's nutritional status at an early stage will strengthen correct-age enrolment in school as well as children's cognitive development.

Children with disabilities are a highly vulnerable group with 57.3 per cent of those aged 15 to 19 never having attended school and / or not completed primary school (CSES 2009). This is a significantly higher proportion of exclusion than for other groups⁴.

CSES 2009 shows that children from ethnic minorities and in particular indigenous minorities have higher OOSC rates than Khmer children. The OOSC rate amongst 5-year-olds was 71.8 per cent for indigenous minorities and 88.4 per cent for Cham children⁵. At primary level, Cham children 'catch up' with an OOSC rate of 22.3 per cent while indigenous minorities have an extremely high rate of 73.2 per cent and even higher for boys at 80.3 per cent. The OOSC rate for 12 to 14s is 12.3 per cent amongst Chams and 46.9 per cent amongst indigenous minorities. It is important to note that some Cham children are likely to be attending Madrassa schools which was not captured in the data collection. The majority of indigenous minorities live in rural and remote highland areas which are sparsely populated, with lower coverage of schools and a higher proportion of incomplete schools resulting in greater distances to schools.

The high OOSC rates amongst indigenous minorities can partly be attributed to the fact that the majority of schools use Khmer as the language of instruction which is different from the language used at home. This means schooling can seem 'foreign' to children from indigenous minorities because the language and concepts are very different from their daily context. MoEYS is to be commended for introducing multilingual education to address the learning needs of indigenous minorities in the 2000s incorporating teacher training and material development with subsequent legislation for the use of 5 indigenous languages in school. The Government has also placed the majority of indigenous teachers with the required qualifications on the payroll and ensured schools receive the SOB. More recently, the Ministry has launched a Multilingual National Education Action Plan (MENAP), the first of its kind in the region, which provides for the institutionalization and incremental expansion of the approach at pre-school and primary levels. Nevertheless, even with this planned expansion, the coverage remains constrained and many indigenous children will have no option but to attend a Khmer-speaking school. MoEYS has also agreed to collect and publish data on children's ethnicity within EMIS to help bring to light their participation in education and learning.

4 It is important to note that there are challenges with the collection of data on people with disabilities and it is assumed that disability is underreported in CSES and therefore the actual proportion may be even higher.

5 Indigenous minorities represent 1.3 per cent of the total population.

It is important to note that the higher levels of exclusion amongst indigenous minorities is not a characteristic of the ethnicity per se but linked to the supply-side constraints and broader challenges in providing tailored and flexible education to meet their needs. Moreover, children do not inhabit static and siloed categories, vulnerability is often linked to multiple characteristics including gender, location, ethnicity, SES.

Conclusions

To conclude then, Cambodia's education system has undergone rapid expansion since the 1990s with increased coverage of education at all levels from pre-school through to secondary school. Demand for education has risen. There has been major improvement in addressing total exclusion from school. In 2004, 21 per cent of 6 to 11s and 6 per cent of 12 to 14s had never attended school; by 2012 these rates had dropped to 11 per cent and 2 per cent respectively. This was achieved as a result of rapid expansion of education coverage, the provision of Government-subsidized education at all levels as well as comparatively strong management capacity by MoEYS at central level. The Government has also benefited from development partner support in initiating equity-focused programmes targeting OOSC and at risk children and several of these programmes are being successfully scaled up by MoEYS.

The analysis shows that challenges persist to varying degrees across all of the dimensions. Exclusion is particularly high amongst 5 - year - olds and this has a knock on effect on all other dimensions due to children's comparatively low readiness to learn and socialization prior to starting in primary school or indeed their delayed entry into primary. Low performance and higher levels of exclusion in rural areas, particularly for poor girls aged 5 to 11 are also identified as issues requiring policy action.

Moreover, a recurring theme in the research is the high proportion of over-aged children in the school system. By international standards, being 2 years or more over age for grade means that children are at risk of dropping out. Indeed, the strength of the 'pull factors' will only increase as Cambodia's economy develops and this is seen most clearly in high drop out rates amongst 14 - year - olds and older. This shows the urgency of addressing the efficiency of the Cambodian education system in order to ensure more children complete a full cycle of pre-school through to Grade 12 so that children are equipped for further study and a successful transition to employment and broader development.

Children who drop out of school or who are at risk of dropping out are from diverse backgrounds and may have 'overlapping deprivations' including children from ethnic minorities, children with disabilities, migrant children and poor, working children. Nevertheless, the deep reforms which MoEYS has initiated will – with strong management – yield results at the school level with improved school management, higher learning outcomes and greater inclusion partly due to perceptions of increased quality.

Recommendations

Promote Greater Participation in Early Childhood Development

In order to substantially increase participation in pre-school and promote young children's holistic developmental needs as well as broader performance in education:

- Conduct intensive Communication for Development initiatives amongst parents to build demand for early childhood education explaining the short and long-term benefits of Early Childhood Development and Early Childhood Education

- Promote play and gender-responsive pedagogies within the early childhood education curriculum ensuring an appropriate balance with developing literacy
- Strengthen the quality of community pre-school ensuring clear Ministerial mandates regarding the provision of teacher training, the allocation of recurrent costs and overall management within the context of deconcentration and decentralization; in the longer-term, ensure all primary schools have one state pre-school class
- Ensure state pre-school and community pre-school teacher training are fully integrated into the teacher education reform
- Introduce a sustainable approach to nutrition within pre-schools including deworming as well as health screening for young children to detect developmental delays and disability

Increase Attendance of the Most Vulnerable Children in Primary Education

In order to facilitate the inclusion of the last 13.2 per cent of children aged 6 to 11 in structured learning and to enable the rapid promotion of over-aged children:

- Make primary education compulsory, in line with the Convention on the Right of the Child (CRC), linked to the provision of social safety nets such as the expansion of poverty-based scholarships and the provision of uniforms and learning materials / bicycles for poor students and complemented by right age enrolment campaigns
- Substantially increase the SOB introducing greater flexibility to enable the delivery of tailored programmes to meet the learning needs of the hardest to reach and enforce compliance of no tuition fees in schools
- Formulate a comprehensive and costed policy framework identifying the provision, pathways and phasing of equity-oriented education programmes addressing the needs of never enrolled children, over-aged children, children who have dropped out and migrant children. The framework would include the re-entry programme, the accelerated learning programme, school-based remedial classes and the flexible learning calendar with a clear tracking system
- Develop school- and commune-level referral mechanisms to the Department of Social Affairs, Veterans and Youth for children who have dropped out or are at risk of dropping out within the context of the forthcoming Child Protection Policy

Promote Attendance in Lower Secondary Education through Social Protection Measures

In order to make lower secondary education more accessible to poor children and enable retention:

- Increase the amount and coverage of scholarships including the provision of bicycles
- Conduct intensive Communication for Development initiatives amongst parents and children to build demand for lower secondary
- Consider introducing Accelerated Learning at lower secondary level with a focus on over-aged boys
- Scale up and institutionalise the early warning programme for children at risk of dropping out
- Roll out dedicated teaching hours on life skills by infusing with core subjects as well as specialized subjects in order to strengthen the relevance of education

- Ensure regulation of private companies who employ children and create incentives for the employment of children with the lower and upper secondary education exam (rather than only primary education)

Ensure the Teacher Education Reform Strengthens the Quality of Learning Throughout the Country

In order to have the greatest impact on teaching practice and children’s learning:

- Ensure a strong focus on building a systematic and coordinated teacher continuous professional development system
- Strengthen teacher pedagogy through pre - and in-service training with an appropriate blend of teacher-directed and student-centred learning drawing on local cultural norms and international good practice and based on gender-responsive teaching and learning methods supported by teacher mentoring
- Create a dedicated strategy within Teacher Policy Action Plan for building and retaining a core of qualified local teachers in remote areas
- Include equity-focused modules on inclusive education, multilingual education, positive discipline and accelerated learning within the emerging pre-service and in-service teacher education curriculum within the context of core and elective modules

Strengthen the Management and Financing of Equity-Oriented Programmes

In order to ensure institutional capacity is in place to oversee and resource equity-oriented programmes:

- Review the questions in CSES and the EMIS Annual School Census Form to ensure disaggregated information is captured in line with SDG 4; promote the analysis of CSES and Cambodia Demographic and Health Survey (CDHS) in the annual Education Congresses (national and provincial) to ensure more comprehensive information; establish an IT - based national student identification system with information on student biodata, attendance, assessment data and other relevant student performance information within the context of the inspection reform
- Strengthen education planning and projection models with more accurate, disaggregated data including on children with disabilities and children from ethnic minorities so that their learning needs are factored into simulations and budgets at national and sub-national levels
- Develop a national framework for assessments and examinations ensuring analysis informs policy at national level and teaching practice at the school level
- Strengthen school-based management linking the School Development Plan and SOB to progress in participation rates and teacher performance thereby strengthening the connection between budget and results
- Strengthen coordination of Water, Sanitation and hygiene (WASH) in schools with the Ministry of Rural Development ensuring protected funding within the SOB for the operation and maintenance of WASH facilities and a dedicated separate stream for capital expenditure



1. INTRODUCTION

1.1. PURPOSE OF THE STUDY

The Out-Of-School Children Initiative is a global initiative jointly supported by UNICEF and the UNESCO Institute for Statistics (UIS). Its goal is to reduce the number of children who are out of school around the world. The study enables the country to conduct systematic analysis on the scope of school exclusions and to formulate appropriate policies and strategies to address multi-dimensional facets of inequality in schooling opportunities.

The specific objectives of the study for Cambodia are to:

- Improve statistical information and analysis in Cambodia regarding out-of-school children, and develop complex profiles of these children;
- Identify barriers and bottlenecks that reflect multiple deprivations and disparities that out-of-school children face with regard to education;
- Analyse existing interventions related to enhanced school participation and develop context-appropriate policies and strategies for accelerating and scaling enrolment and sustaining attendance rates for excluded and marginalized children.

Cambodia is one of approximately 50 countries participating in the Out-of-School Children Initiative worldwide (including 11 countries in the East Asia and Pacific Region). This study draws mainly on data from the Cambodia Socio-Economic Survey (CSES), due to the broad information on children's attendance in different types of education, as well as the causes of drop out. The study makes recommendations for interventions that address both the demand- and supply-side factors that

constrain school participation of marginalized children. The findings are particularly significant for Cambodia, as this study represents the first effort to systematically collate and analyse a wide range of information related to out-of-school children, including ethnic minority children, children with disabilities, and children suffering from malnutrition. There is no annual data collected specifically on out-of-school children in Cambodia.



1.2. STUDY METHODOLOGY

1.2.1. OUT-OF-SCHOOL INITIATIVE CONCEPTUAL FRAMEWORK

Throughout this report, 'out-of-school children' refers to children of pre-primary, primary or lower secondary school age who have either discontinued their schooling before completion or have never enrolled in school. It is important to highlight the difference between non-enrolled children (the traditional term for out-of-school children in Cambodia) and the methodology for calculating out-of-school children as part of this global initiative, which looks at non-enrolment, non-attendance and those at risk of dropping out based on level of education. This study methodology is based on the Conceptual and Methodological Framework developed as part of the Global Initiative on Out-of-School Children. The framework identifies 'Five Dimensions of Exclusion', which are:

- 1 Children of pre-primary school age (5 years)⁶ who are not in pre-primary or primary school
- 2 Children of primary school age who are not in primary or secondary school
- 3 Children of lower secondary school age who are not in primary or secondary school
- 4 Children who are in primary school but at risk of dropping out
- 5 Children who are in lower secondary school but at risk of dropping out



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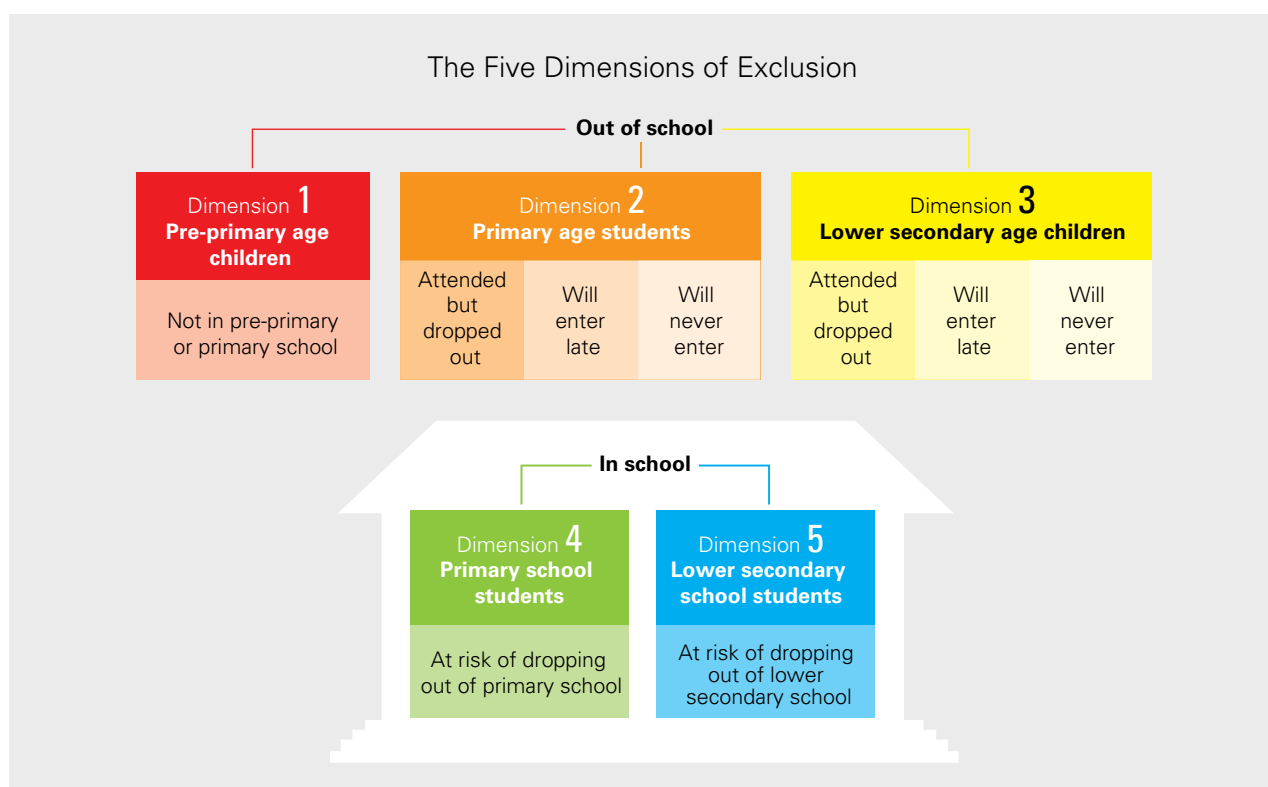
⁶ Although pre-primary education programmes may be longer than one year, the Five Dimensions model proposes a standard approach for countries by focusing on pre-primary participation of children in the year preceding the official entrance age into primary school. In the case of Cambodia, this is 5 years of age.

Dimensions 2 and 3 are further split into three mutually exclusive categories:

- Children who attended in the past and dropped out
- Children who will enter school late
- Children who will never enter school

An illustration of the out-of-school children framework is presented in Figure 1-17.

Figure 1-1: Out-of-school children conceptual framework:



It is important to note that this study was conducted based on the availability and structure of data in Cambodia and therefore may differ from other out-of-school children country reports. Administrative data is used to analyse the dimensions of out-of-school children in Section 2, while Section 3 draws on qualitative data from a literature review of research, studies and reports related to education in Cambodia. Given that primary research was not conducted for this study, it was not possible to robustly analyse the reasons for the data in the various out-of-school children dimensions, however the dimensions

are refer-enced in Section 3 and, as far as possible, correlations are drawn for possible reasons for exclusion and drop out. This study is influenced by the concept of the dynamic push and pull factors affecting children’s participation in education (Jordan et al., 1994; Watt and Roessingh, 1994).

Students are pushed out when adverse situations within the school environment cause them to drop out of the system. In most cases, the reason for students abandoning their schooling is that schools do not effectively cater for individual needs, abilities

7 The terms “will never enter” and “will enter late” in the theoretical model are translated to “unlikely to ever enter” and “likely to enter late” in statistical tables and graphs. While it is true that some children will never enter school or will enter late, it is not possible to measure the percentage of children in these groups with precision because of uncertainty about future school attendance of individual children.

and learning styles (Shaffer, Gordon, 2015), including via policies related to examinations, attendance and school discipline. With push factors, the schooling system is considered the agent contributing to student drop out.

Students are pulled out when factors specific to the student but external to the school divert them from school. These factors, which could include poverty, employment, illness or marriage, often cause students or their families to deprioritize schooling. With pull factors, the student/family and/or circumstances are the agent pulling them out of school. The push and pull factors are analysed in Sections 3.2 and 3.3. under 'Supply of Education' and 'Demand-side Barriers to Education'.

This study is designed to be complementary to on-going research by the Cambodian Consortium for Out-of-School Children, funded by Educate a Child, which is conducting primary and secondary research on out-of-school children.

1.2.2. OVERVIEW OF DATA SOURCES



The study draws its quantitative findings from a broad range of data sources, including:

- MoEYS/EMIS Annual School Statistics
- Cambodia Inter-Censal Population Survey (CIPS) 2013
- Cambodia Socio-Economic Surveys, 2004, 2008, 2009 and 2012
- Cambodia Demographic and Health Surveys (CDHS), 2000, 2005, 2010
- Cambodia Labour Force and Child Labour Study, 2012
- The Cambodian Rural Urban Migration Project (CRUMP), 2012

At times, there are varying results across different data sources due to different methodologies used in projections and sample survey estimations, especially between administrative data (MoEYS/EMIS) and household survey data (CSES/CDHS).

For example, the MoEYS/EMIS School Statistics or administrative data are based on enrolment at a specific date, which can bias the results by either counting enrolled children who do not remain in school or by omitting those who enrol after the reference date (for reporting enrolment data). The CSES household data collection was done during the period January to November, while the school year in Cambodia is between October and June. This means that the CSES 2012 data mainly refers to the 2011/2012 school year and two months of the 2012/2013 school year. As a result and for the sake of comparison, 2011/2012 EMIS data will be used to compare with CSES 2012 data. As the CSES was conducted primarily to capture information not specifically on education, it is likely that the start of the academic year (from 1 October) was not taken into consideration with respect to survey data collection time. It must also be noted that being enrolled in school is not necessarily the same as attending school; children might be recorded in school enrolment records but not actually attend school (UIS, 2005).

For this study, CSES 2012 is the main data source for the calculation of the out-of-school rates, which are age-referenced. The assumption is that parents/households can provide more accurate information on the age of a child than school administrative records and that, unlike administrative sources, household surveys provide information on children who are both in and out of school. CSES 2012 is the eleventh survey collecting data from households and individuals in Cambodia on different areas relating to poverty. The survey was first conducted in 1994 by the National Institute of Statistics (NIS) of the Ministry of Planning (MoP). Since 2007, the CSES has been conducted every year with

a sample size of 3,600 households. In 2009, the sample size increased to 12,000 households. Because of the small sample size in 2012 (3,600 households), data is only statistically valid at the national level. Hence, the study will use CSES 2009 when disaggregating data into small population groups, such as by province or ethnicity, to ensure the findings are statistically valid.

The study uses CSES data rather than CDHS data, as CSES collects more information on education, including children in formal, non-formal and private education, as well as not-attending school and the causes of not-attending school. CDHS data does not disaggregate by grade, rather by educational level. CDHS is normally only collected every five years and the data for 2014 was not ready at the time of this analysis. As a result, CSES is the main source of data and analysis for this report. CDHS data has however been analysed in the section on child nutrition, where results from this survey are more telling.

As mentioned above, CSES data collection does not align with the school year. This non-alignment can create distortions in the age data used to calculate education indicators. To minimize statistical error caused by this issue, an adjusted age methodology was used to calculate and compare the ages of children by birth month and by the age recorded in the survey⁸. However, small variances (between - 1.1 per cent and 2.1 per cent) were found using the age-adjusted methodology. As agreed by MoEYS, CSES 2012 data calculations for each age and dimension are based on the age recorded in the survey without age adjustment.

In addition to the quantitative research, the analysis of supply- and demand-side issues affecting children's participation in education in Section 3 is based on an extensive literature review of research, studies, surveys and reports related to out-of-school children and education in Cambodia.

8 Further information on household survey-based education statistics and the age data methodology is available here: <http://www.uis.unesco.org/Education/Documents/Household-survey-methodology-en.pdf>

1.3. COUNTRY CONTEXT

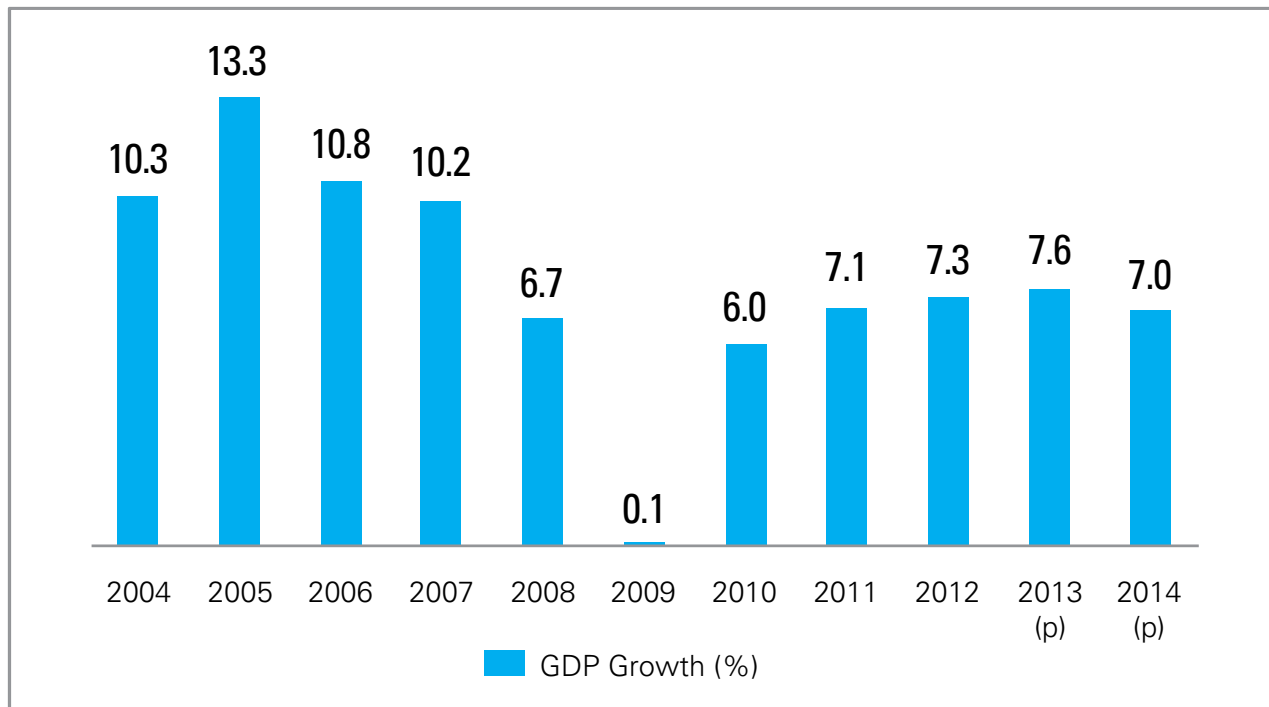
Cambodia is a constitutional monarchy with a democratically elected government. It has a total landmass of 181,035km² and is bordered by Thailand to the northwest, Laos to the northeast, Vietnam to the east, and the Gulf of Thailand to the southwest. The total population is 14.68 million according to the 2013 CIPS (see Annex 1). Cambodia is classified as a Least Developed Country by the United Nations. Its per capita income exceeded US\$1,000 for the first time in 2012, a near fivefold increase over the last decade.

Emerging from the genocidal regime of the Khmer Rouge and a decade of civil war, Cambodia has made a remarkable recovery in nation building over the past two decades. Cambodia pursues a development strategy through planned development in a market framework. Since 2004, the Royal Government of Cambodia has adopted a 'Rectangular Strategy' designed to support

growth, employment, equity and efficiency in the implementation of the five-year National Strategic Development Plan (NSDP), currently in its fourth phase 2014-2018.

The successful implementation of the Rectangular Strategy and NSDP has enabled sustained security and social stability and provided opportunities for development, tourism and direct foreign investment. Driven by the burgeoning garment sector, Cambodia enjoyed exceptionally strong economic growth from 2004-2007, with an average GDP growth of more than 11 per cent per annum, peaking at 13.3 per cent in 2005. The global economic recession in the late 2000s greatly impacted Cambodia due to shrunken export demand from the West. The country's economy has rebounded quickly however, with projected GDP growth of 7 to 7.5 per cent over the medium term.

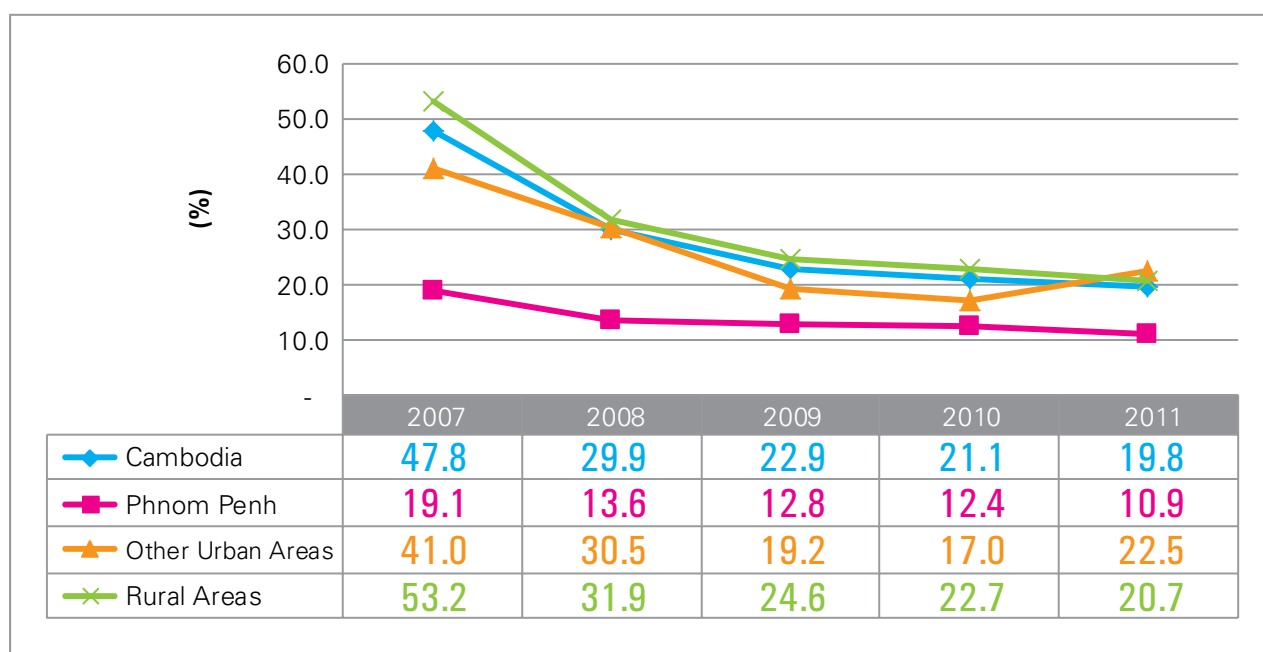
Table 1-1: Cambodia's GDP growth rate 2004-2014



Source: Ministry of Economy and Finance, 2014

Poverty alleviation is a development priority of the Government, with the formulation of the first Poverty Reduction Strategy in early May 2000. Over the last 15 years, significant progress has been made in reducing poverty through economic reforms and pro-poor social policies. The poverty level has reduced at a rate of more than one percentage point annually since the early 2000s. According to the 2011 CSES, the poverty rate stood at 19.8 per cent in 2011, nearing Cambodia's Millennium Development Goal (CMDG) target of 19.5 per cent by 2015⁹. Poverty reduction has been particularly successful in rural areas where the poverty rate declined from 53.2 per cent in 2007 to 20.7 per cent in 2011. Nevertheless, around 40 per cent of the population lives just above the poverty line and is very vulnerable to minor economic changes, natural disasters and other shocks.

Table 1-2: Trends in poverty rates in Cambodia by broad strata, 2007-2011



Source: MoP, CSES, 2007-2011

Cambodia has achieved well against a number of its CMDG goals, including universal literacy and basic education, reducing child mortality, improving maternal health and combating HIV/AIDS, malaria and other communicable diseases. There has also been progress made in gender equity in basic education participation and employment, but more effort needs to be made at higher levels of education and in women's representation in public office. Efforts have been made to strengthen sustainable natural resource and environmental management, however, there is a need to further strengthen reforestation and forest management, preserve fresh water sources, and improve the livelihoods of people who depend on natural resources (MoP, 2013).

9 In 1993-1994, the poverty rate was estimated at about 39 per cent of the population, using a poverty line developed by the World Bank. In 2011, the Government redefined the poverty line while keeping the CMDG target for reduction in poverty at 19.5 per cent by 2015.

1.4. EDUCATION SECTOR

The Cambodian public education system consists of:

- (i) three years of pre-school education;
- (ii) six years of primary education (Grades 1 - 6);
- (iii) six years of secondary education with three years at lower levels (Grades 7 - 9) and three years at upper secondary level (Grades 10 - 12);
- (iv) selective non-formal education programmes focusing on adult literacy and school equivalency;
- (v) limited range of technical, vocational and skills-oriented programmes through a network of urban and provincial technical training centres;
- (vi) a small number of public higher education institutions, mainly in Phnom Penh and provinces; and
- (vii) a network of regional and provincial teacher training colleges.

The private sector in primary and secondary education is very small, but the past decade has seen rapid growth in the establishment of private universities, mainly in Phnom Penh.

The education sector is managed by MoEYS and consists of six directorates general, 39 line departments, 25 provincial education offices, 197 district education offices, 3,443 public pre-schools, 7,051 primary schools, 1,674 lower secondary schools and 18 provincial teacher training centres. In addition to the general education system, higher education is delivered through more than 105 public and private institutions.

Table 1-3: Cambodian education system

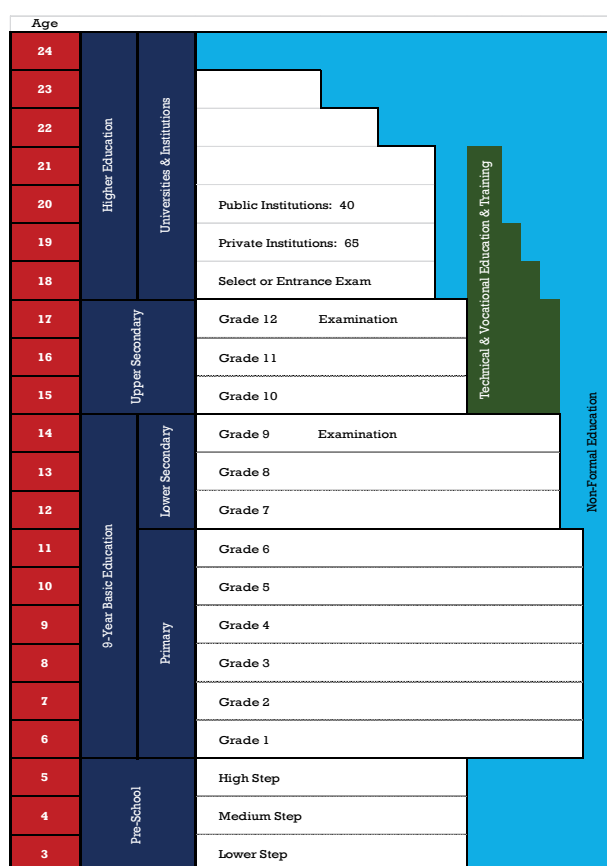


Table 1-4: Basic education statistics, school year 2014/15

Education level	Number of schools	Enrollment		Teaching Staff	
		Total	Female	Total	Female
Pre-Primary					
- Public Pre-schools	3,443	163,468	82,177	4,839	4,646
- Community Pre-schools	2,546	60,839	31,334	2,709	2,614
- Private Pre-schools	235	24,041	11,847	1,245	1,082
Primary Schools	7,051	2,012,175	970,999	44,292	23,227
Lower Secondary Schools	1,674	546,864	275,222	27,793	11,844
Upper Secondary Schools	455	262,072	128,594	12,227	4,053
Cambodia	15,404	3,069,459	1,500,173	93,105	47,466

Source: MoEYS/EMIS

MoEYS is mandated to ensure that an effective human resource base is developed by providing and enabling educational opportunities for all Cambodians. In the early 2000s, MoEYS initiated a comprehensive education reform, culminating in the preparation of the first Education Strategic Plan (ESP) 2001-2005. At the core of the medium-term education sector plans is a commitment to universal access and quality basic education. The ESP adopts a sector-wide management framework and a set of programme priorities to guide planning, management and implementation.

Since the early 2000s, Cambodia has been committed to improving educational access for the rural poor, girls, ethnic minority children and other marginalized groups. Since formulating the first ESP 2001-2005, access to schooling has improved, regardless of place of residence, gender or wealth. Public pre-school enrolment has risen from 63,747 pupils in 2001/02 to 163,468 in 2014/15. Including private and community-based pre-schools, the total pre-primary enrolment is nearly 250,000 children.

Based on EMIS data, the primary net enrolment rate has steadily increased, from 87.0 per cent in the school year 2001/02 to 94.5 per cent in the school year 2014/15. The primary gross enrolment rate has steadily decreased, from 125.1 per cent in the school year 2001/02 to 111.2 per cent in

the school year 2014/15. This shows a decrease in over-age children in primary education, likely due to the fact that a greater proportion of children were enrolled at the right age, while the primary repetition rate has decreased over the years. In lower secondary education, the net enrolment rate has increased from 18.9 per cent to 39.1 per cent over the same period. While the lower secondary gross enrolment rate has also increased, from 32.7 per cent in the school year 2001/02 to 53.3 per cent in the school year 2014/15, this peaked in 2007 and then reduced. Since 2007, girls have had a slightly higher net enrolment rate than boys, both in primary and secondary education.

The quality and efficiency of the basic education system has also improved since the adoption of the first ESP 2001-2005. The repetition rate in primary has been halved, from 10.1 per cent in 2001/02 to 5.1 per cent in 2013/14. The lower secondary repetition rate also declined, from 5.4 per cent in 2001/02 to just 1.8 per cent in the school year 2013/14. Pupil-teacher ratios have lowered in primary from 56.8 to 46.2, and in secondary from 21.4 to 19.4 over the past 12 years. This reflects a positive trend in enhanced teaching and learning processes (see Table 1-5), although further profound reforms are needed to upgrade the quality of education.

Table 1-5: Select ESP key achievements from 2001/02 to 2014/15

	2001/02	2005/06	2009/10	2014/15
Pre-school Enrolment				
- Public Pre-schools	63,747	75,669	99,130	163,468
- Community Pre-schools	21,204	18,418	33,498	60,839
- Private Pre-schools	4,067	7,472	15,828	24,041
Primary Net Enrolment Rate	87.0	91.3	94.8	94.5 ⁽¹⁾
Lower Secondary Gross Enrolment Rate	32.7	55.3	58.1	53.3 ⁽²⁾
Repetition Rate				
- Primary	10.2	11.0	7.1	5.1
- Lower Secondary	5.4	2.5	2.0	1.8
Pupil Teacher Ratio				
- Primary Education	56.8	50.8	49.2	45.4
- Lower Secondary	21.4	31.7	24.4	19.7

Note:

1. The total net enrolment rate in primary education becomes 97.9 percent when including enrolment in private schools.
2. The gross enrolment rate in lower secondary education becomes 54.2 per cent when including enrolment in private schools.

Source: MoEYS/EMIS

The NSDP 2014-2018 highlights the development of high quality and capable human resources as key to supporting economic growth and competitiveness in Cambodia. Developing education is critical for Cambodia's transition from a lower-middle income country to an upper-middle income country by 2030, and a developed country by 2050. The ESP 2014-2018 is designed as a further step towards putting in place necessary human resources and infrastructure to help achieve the national vision and goals.

The ESP 2014-2018 will continue to prioritize equitable access to high quality basic education services. The three policy pillars of the ESP are:

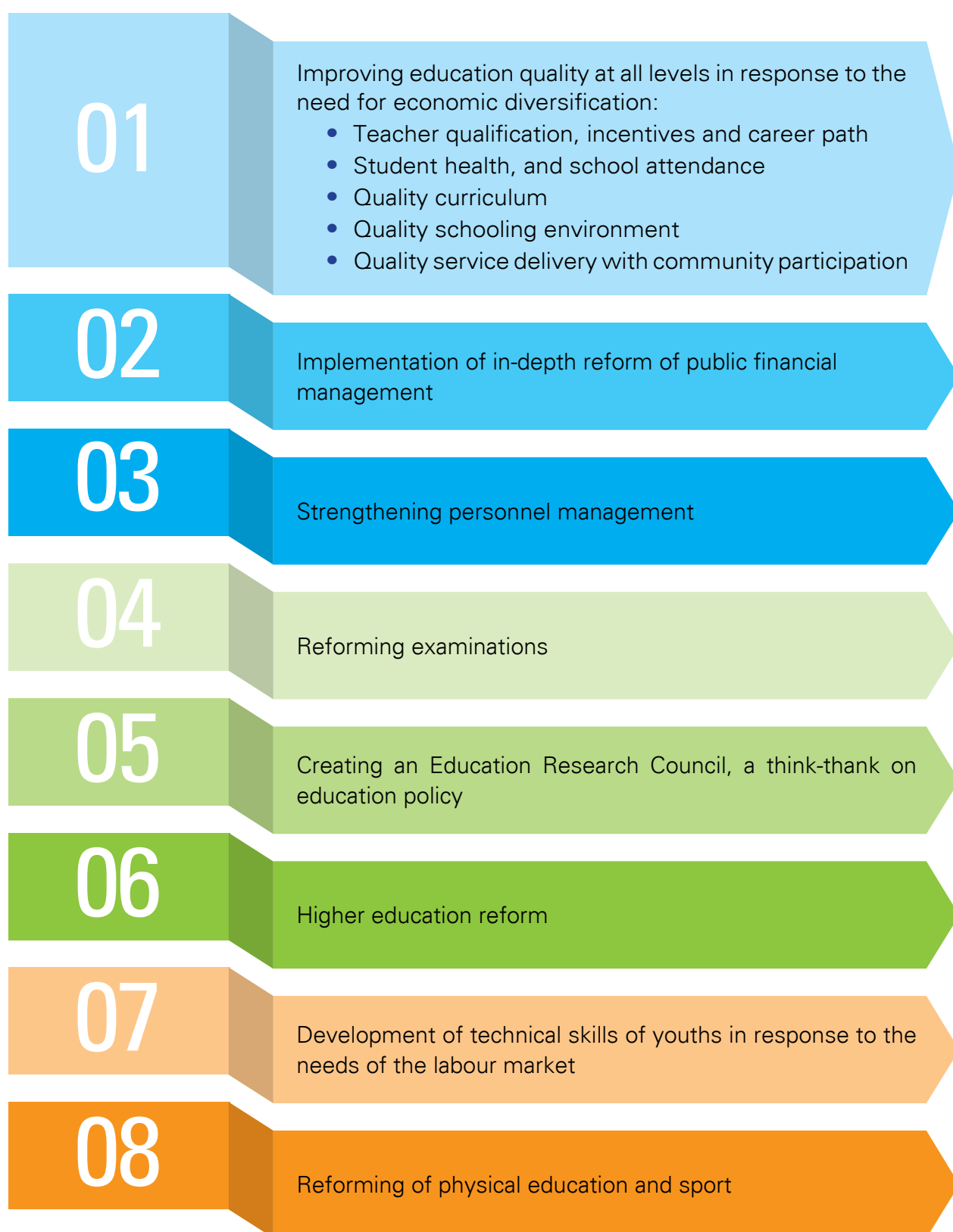
- **Policy 1:** Ensuring equitable access for all to education services
- **Policy 2:** Enhancing the quality and relevance of learning
- **Policy 3:** Ensuring effective leadership and management of education staff at all levels

Within the context of education service delivery, the ESP focuses on expanding early childhood education, access to quality secondary and post-secondary education, non-formal education and technical and vocational education. Specific measures will also be taken to ensure access to education for marginalized children and youth.

Within the context of sector management and governance, the ESP recognizes that providing the education system with the right resources and mechanisms to ensure transparency is critical to improving the outcomes and impact of its activities. The ESP 2014-2018 includes measures to improve budget management and to better link results to financial resources. It also recognizes that rigorous implementation of the Teacher Code of Conduct and developing the capacity of staff at all levels for effective implementation against clear standards will lead to better governance. To support these reforms, MoEYS will continue to strengthen partnerships with different stakeholder groups, including families and local communities, development partners and the private sector.

The MoEYS Priority Reform Agenda 2013-2018, as set out by the Education Minister, His Excellency Hang Chuon Naron, is presented below.

The MoEYS Priority Reform Agenda



These extensive and deep reforms are taking place across the sector with a focus on improving quality and governance. The scale of the reforms in education is unprecedented and their impact on teaching and learning in Cambodia will be far reaching. Nevertheless, educational change is a slow process and the impact on education indicators may only be felt in the following mandate. As the indicators analysed in this report pre-date the start of the reform agenda, there will be no discussion on the impact of the reforms.



2. OVERVIEW OF CHILDREN'S ATTENDANCE IN AND EXCLUSION FROM SCHOOL BY AGE GROUP

The Conceptual and Methodological Framework categorizes out-of-school children and those at risk of dropping out based on the Five Dimensions of Exclusion discussed in Section 1.2.1. Calculations of the numbers of out-of-school children for each education level are summarized below.

- **At the pre-primary education level:** Number of children in the age group one year below the official age of entry into primary education (5 years in Cambodia) who are not enrolled in pre-primary or primary school, expressed as a percentage of the total population in this age group.
- **At the primary education level:** Number of children of official primary school age (6 - 11 years in Cambodia) who are not enrolled in primary or secondary school, expressed as a percentage of the population of official primary school age. Children enrolled in pre-primary education are excluded and considered out of school.
- **At the lower secondary education level:** Number of children of official lower secondary school age (12 to 14 years in Cambodia) who are not enrolled in primary or secondary school, expressed as a percentage of the population of official lower secondary school age.

The school typology includes public and private schools as well as religious schools using the national curriculum. Those in non-formal education or non-accredited vocational training are typically counted as out of school, except when such education is recognized as fully equivalent to formal education.



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2.1. DIMENSION 1: OUT-OF-SCHOOL CHILDREN OF PRE-PRIMARY AGE

Pre-primary education is represented by Dimension 1, which highlights children of pre-primary school age who are not in pre-primary or primary education. Three indicators are used to measure this group of children: Net Attendance Rate (NAR), Adjusted Net Attendance Rate (ANAR) and the out-of-school rate. NAR represents the percentage of pre-primary school age children in pre-primary school, while ANAR is an internationally defined indicator that counts enrolment in higher levels, together with the intended level for the age groups. The ANAR for pre-primary therefore takes into consideration pre-primary age children who have graduated into primary schools. The out-of-school rate measures the percentage of pre-primary school children who are not in pre-primary or primary education. The formulas used to calculate the indicators for Cambodia are:

$$\text{Pre-primary Net Attendance Rate (NAR)} = \frac{\text{Number of children age 5 attending pre-primary school}}{\text{Total number of children age 5}}$$

$$\text{Pre-primary Adjusted Net Attendance Rate (ANAR)} = \frac{\text{Number of children age 5 attending pre-primary or primary school}}{\text{Total number of children age 5}}$$

$$\text{Pre-primary out-of-school rate} = 100 \text{ per cent} - \text{pre-primary ANAR}$$

In Table 2-1, statistics are displayed on school attendance at both pre-primary and primary levels.

Table 2-1: School Attendance of Pre-Primary School Age Children (Age 5) 2012

	Attending Pre-Primary (NAR)	Attending Primary	ANAR	Out-Of-School	
				%	No.
Cambodia	10.9	18.2	29.1	70.9	212,710
Gender					
Male	11.4	19.2	30.6	69.4	111,271
Female	10.3	17.0	27.3	72.7	101,439
Location					
Urban	15.2	17.9	33.1	66.9	31,168
Rural	10.1	18.2	28.3	71.7	181,542
Wealth Quintile					
Q 1 (Poorest)	10.2	11.8	22.0	78.0	72,993
Q 2	10.4	19.3	29.7	70.3	52,195
Q 3	6.8	18.1	25.0	75.0	55,340
Q 4	18.4	24.8	43.2	56.8	19,175
Q5 (Wealthiest)	16.7	30.3	47.0	53.0	13,005

Source: Author's Calculation from CSES 2012



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According to CSES 2012, 29.1 per cent of 5 - year - old children attend school, of which 10.9 per cent are in pre-primary school and 18.2 per cent are in primary school. This national rate is alarmingly low and deserves important attention from MoEYS and development partners. The percentage of children who are out of school in this age group stands at 70.9 per cent. More than two thirds of pre-primary school age children in Cambodia were out of school in 2012.

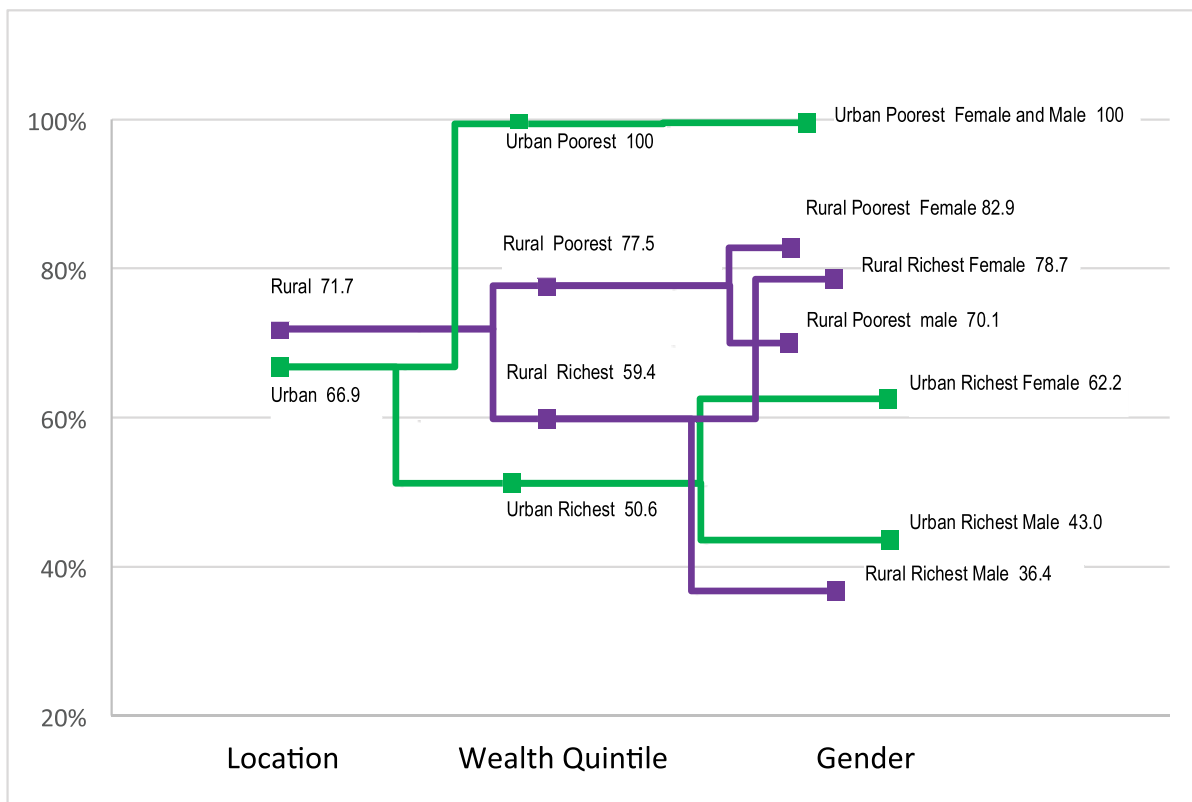
At this age, boys were slightly more likely to attend school than girls. Some 30.6 per cent of boys compared with 27.3 per cent of girls attended school. In respect to urban and rural areas, 33.1 per cent of urban children were in school compared with only 28.3 per cent of rural children. More than 15 per cent of urban children aged 5 years attended pre-primary education, compared to only 10 per cent for their rural counterparts. This is perhaps due to the existence of more pre-primary schools in urban areas and differences in household wealth (see Section 3.3.1 'Poverty'). According to CSES 2012, nearly 22 per cent of urban children in pre-primary education enrolled in private schools compared to none in rural areas.

In each of the dimensions, graphs are included to show the profiles of children most likely to be excluded from education in Cambodia. Due to the fact that the 2012 CSES dataset is comparatively small, it is not possible to disaggregate the data at all levels. For example, certain 'categories' of children may be under-represented in the 2012 CSES data thereby skewing the results. As a result, multiple disaggregation is not always possible and certain data has been removed to avoid misrepresentation. These graphs identify certain disparities and focus attention on the profiles of children most likely to be excluded from education.

Looking specifically at children aged 5 years who are out of school, it is possible to break this down further into specific profiles (see Figure 2-1 below). The difference in the out-of-school rate in rural and urban areas is only 4.8 percentage points, but disparities increase significantly when overlaying wealth and gender variables. The poorest girls in rural areas have the least access to pre-primary education. There is a 46.5 percentage point difference between the out-of-school rate of the wealthiest boys in rural areas (at 36.4 per cent) and the poorest girls in rural areas (82.9 per cent).

This shows the importance of overlaying gender with wealth and location to identify the most vulnerable children.

Figure 2-1: 5 Year Old OOSC Rate by Location, Wealth Quintile and Gender



CSES, 2012

This study acknowledges that there is an unusually large difference between MoEYS statistics on enrolment and CSES 2012 statistics on attendance of 5 - year - olds. According to the MoEYS Education Congress Report 2012, there were 146,071 children aged 5 enrolled in pre-primary education including public, private and community pre-schools. The pre-school enrolment rate therefore was estimated to be 52.7 per cent of a projected age - 5 population of 277,398 children. This would mean that approximately 47.3 per cent of 5 - year - olds are not enrolled in pre-school, which is substantially lower than the CSES out-of-school rate for 5 - year - olds.

Table 2-2: Pre-primary education enrolment rates

School Year	Public Pre-School	Private Pre-School	Community Pre-School	Home-based Programme	Age-5 enrolled (per cent)
2011/12	34.7	3.1	9.5	5.4	52.6
2012/13	36.7	4.7	8.9	6.1	56.5

Source: Early Childhood Education Department, MoEYS

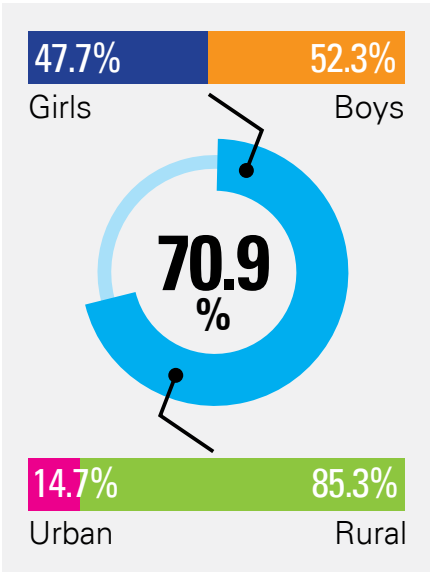
As stated in the methodology section, the different rates of participation measured by administrative and household survey data sources can be attributed to a number of possible factors including the timing of data collection. However, the divergence between MoEYS/EMIS and CSES 2012 is too great to be attributed solely to the survey methodology alone. Potential reasons for this important disparity are identified as:

- Children in pre-school may be more susceptible to erratic attendance than those in primary school due to higher levels of morbidity among young children and the increased likelihood that young children will be taken by their parents to the rice fields or to their work.
- In the CSES 2012 questionnaire, the definition of the four types of early childhood education was not clearly identified¹⁰ leading to the possibility that children attending community pre-school or the home-based programme were not captured in the survey.
- MoEYS early childhood education data is based on a number of different sources including EMIS and District and Provincial Offices of Education for home - and community-based programmes, leading to challenges in overall quality assurance of the data, for example:
 - ▶ MoEYS data may be susceptible to double counting, as children may enrol in home-based as well as state or community pre-schools
 - ▶ MoEYS data for the home-based programme may be unrealistically high due to the possibility that children who are younger than 5 years are also captured in the enrolment data
 - ▶ Where state pre-schools are located in the same compound as primary schools, it is possible that some children are reported to be in pre-school, although they may technically be enrolled in primary school
 - ▶ MoEYS presents enrolment data for early childhood education based on the assumption that pre-school classes are attended by the correct age group (i.e. the 'high step' or last 'grade' of pre-school is attended only by children aged 5 years), but this may not be the case, as mixed-age classes are commonly observed due to a lack of classrooms and teachers

Qualitative information and experience from the field testifies to the greater accuracy of CSES data as a reflection of the reality of the attendance of 5 - year - olds.

The profile of out-of-school children at the pre-primary age of 5 years in 2012 can be summarized as:

- According to household survey data, CSES 2012 estimates that 70.9 per cent of 5 - year - olds, or roughly 212,700 children, are out of school at the pre-primary age of 5 in Cambodia. Of this number, about 47.7 per cent are girls and 52.3 per cent are boys, 14.7 per cent live in urban areas and 85.3 per cent in rural areas. It is the children from the poorest households in both urban and rural areas who are the most excluded from education at this age.
- According to MoEYS administrative data, EMIS 2011/12 estimates that 47.4 per cent of 5 - year - olds are out of school, or roughly 131,327 children, of whom 48.1 per cent are girls and 51.9 per cent are boys.



10 In the CSES 2012 questionnaire, pre-school education is presented as a single category without disaggregation by programme (i.e. state pre-school, private pre-school, community pre-school and home-based programme). To address this problem, CSES 2014 has incorporated the disaggregation of pre-school education to ensure that it aligns with the definition used by MoEYS. At the time of writing, CSES 2014 data was not available.



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2.2. DIMENSIONS 2 AND 3: OUT-OF-SCHOOL CHILDREN AND ADOLESCENTS OF PRIMARY AND LOWER SECONDARY AGE

2.2.1. DIMENSION 2: OUT-OF-SCHOOL CHILDREN OF PRIMARY SCHOOL AGE

Dimension 2 represents children of primary school age who are not in primary or secondary school. Three indicators are used to measure this group of children: NAR, ANAR and the out-of-school rate. The NAR represents the percentage of primary school age children in primary schools, while the ANAR takes into consideration primary school age children who have furthered into secondary schools. The out-of-school rate measures the percentage of primary school age children who are not in primary or secondary education. The formulas used to calculate the indicators for Cambodia are:

$$\text{Primary Net Attendance Rate (NAR)} = \frac{\text{Number of children age 6 - 11 attending primary school}}{\text{Total number of children age 6 - 11}}$$

$$\text{Primary Adjusted Net Attendance Rate (ANAR)} = \frac{\text{Number of children age 6 - 11 attending primary or secondary school}}{\text{Total number of children age 6 - 11}}$$

Table 2-3, below, presents the primary NAR, ANAR and out-of-school rate against the number of primary school aged children (age 6 - 11) in Cambodia.

The primary ANAR takes into consideration those primary-aged children studying at the secondary level hence it is marginally higher than the NAR, by 0.7 percentage points. At the national level, the primary NAR is 86.1 per cent. Urban areas have the highest rate of all the sub-groups, at 91.6 per cent. The primary NAR for girls and boys is 85.8 per cent and 86.3 per cent respectively. This means there is near gender parity in primary level attendance of primary aged children. Nationwide, around 13.2 per cent of children aged 6-11 are out of school, or roughly 250,000 children. The primary out-of-school rate includes children still attending pre-primary, which is highest for girls at 2.3 per cent. Overall, the out-of-school rate for girls is 13.4 per cent compared to 13.0 per cent for boys.

Table 2-3: School Attendance of Primary School Age Children (Age 6-11) 2012

	Attending Pre-Primary	Attending Primary (NAR)	Attending Lower Sec	ANAR	Out-Of-School	
					%	No.
Cambodia	1.9	86.1	0.7	86.8	13.2	249,728
Gender						
Male	1.4	86.3	0.7	87.0	13.0	122,802
Female	2.3	85.8	0.8	86.6	13.4	126,926
Area						
Urban	1.7	91.6	0.8	92.4	7.6	27,022
Rural	1.9	84.8	0.7	85.6	14.4	222,706
Wealth Quintile						
Q 1 (Poorest)	2.0	79.2	0.6	79.9	20.1	95,293
Q 2	2.3	87.8	0.3	88.1	11.9	65,418
Q 3	1.6	86.4	1.3	87.7	12.3	51,392
Q 4	1.8	89.5	0.8	90.3	9.7	28,503
Q5 (Wealthiest)	1.0	92.9	1.5	94.4	5.6	9,122

Source: Author's Calculation from CSES 2012

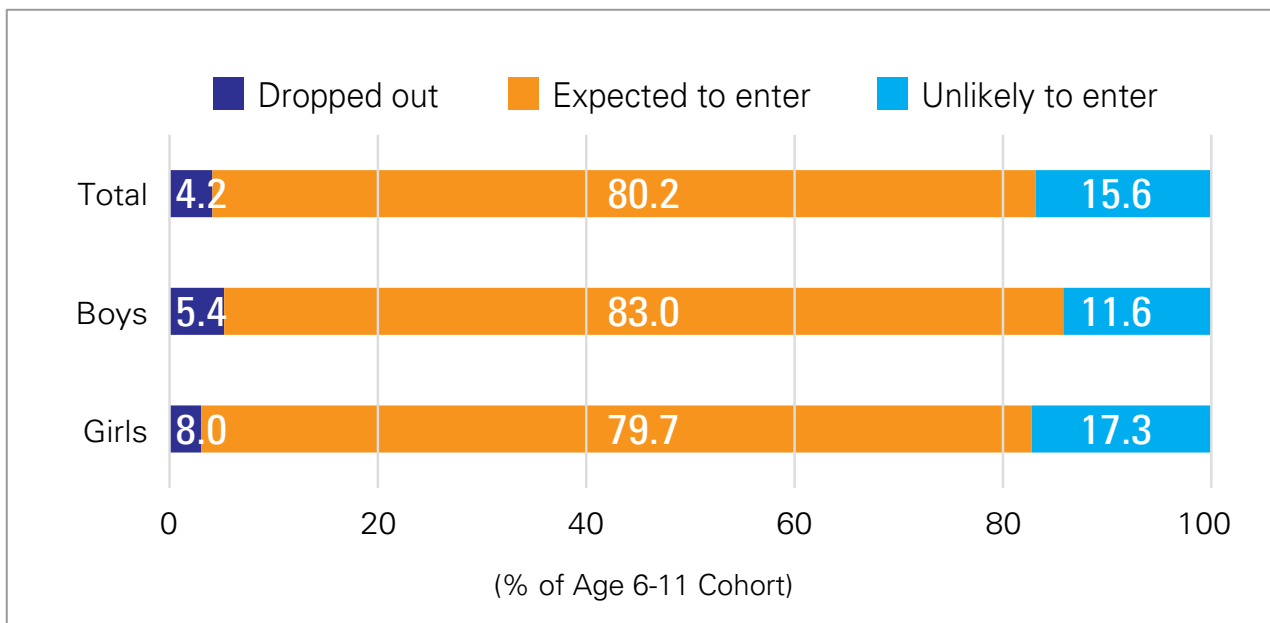
The Conceptual and Methodological Framework classifies out-of-school children as those who have entered and dropped out and those who have never attended school. Table 2-4 provides further details on the profile of out-of-school children aged 6 - 11 years. The total out-of-school rate of 13.2 per cent can be broken down into the following categories:

- 4.2 per cent children who drop out¹¹
- 80.2 per cent have never entered school but are expected to attend school
- 15.6 per cent have never entered and are unlikely to attend school

The majority of primary aged children (6 - 11 years) currently out-of-school are expected to go to school at a later stage. The cumulative 'never attended school' rate of out-of-school children aged 6 - 11 years is 95.8 per cent (made up of those who have not yet entered school but will in future and those who have never entered school and are unlikely to do so). This figure is slightly distorted by high rates among 6 and 7 - year - olds due to non-enrolment in pre-school and late enrolment in primary school.

¹¹ While CSES 2012 does not directly capture data on drop out by consecutive years, two questions within the survey ("Has ... [NAME]... ever attended school?" and "Is ... [NAME]... currently in the school system?") enable a calculation of the number of children who drop out and the number of children who never attended school.

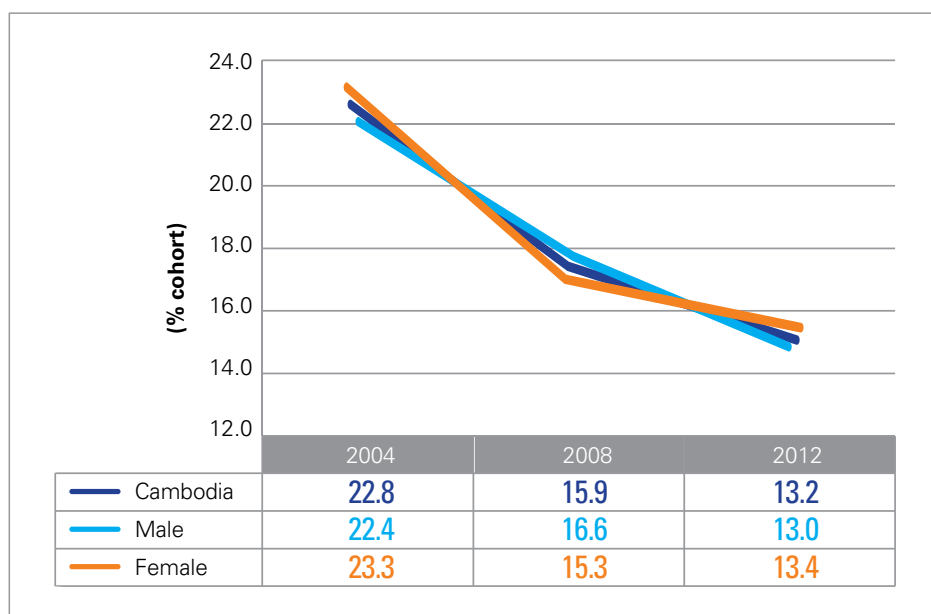
Table 2-4: Primary age (6 - 11 years) out-of-school children profile



Source: Author's calculation from CSES 2012

Despite early success in education reform from 2000-2005, it is estimated that nearly 23 per cent of primary school aged children remained out of school in 2004. Since 2004, the primary out-of-school rate has reduced, and was 13.2 per cent in 2012. A number of factors have driven these improvements, including strong government commitment to expand the primary school system (including by building extra classrooms for incomplete schools)¹² strengthening and expanding the teaching force and increasing teaching and learning materials. Efforts to strengthen MoEYS capacity at central and local levels have also played an important role. It is important to note the very positive trend shown in Table 2-5 with a reduction of almost 10 percentage points in the out-of-school rate between 2004 and 2012.

Table 2-5: Multi-year comparison of primary aged (6 - 11 years) out-of-school children

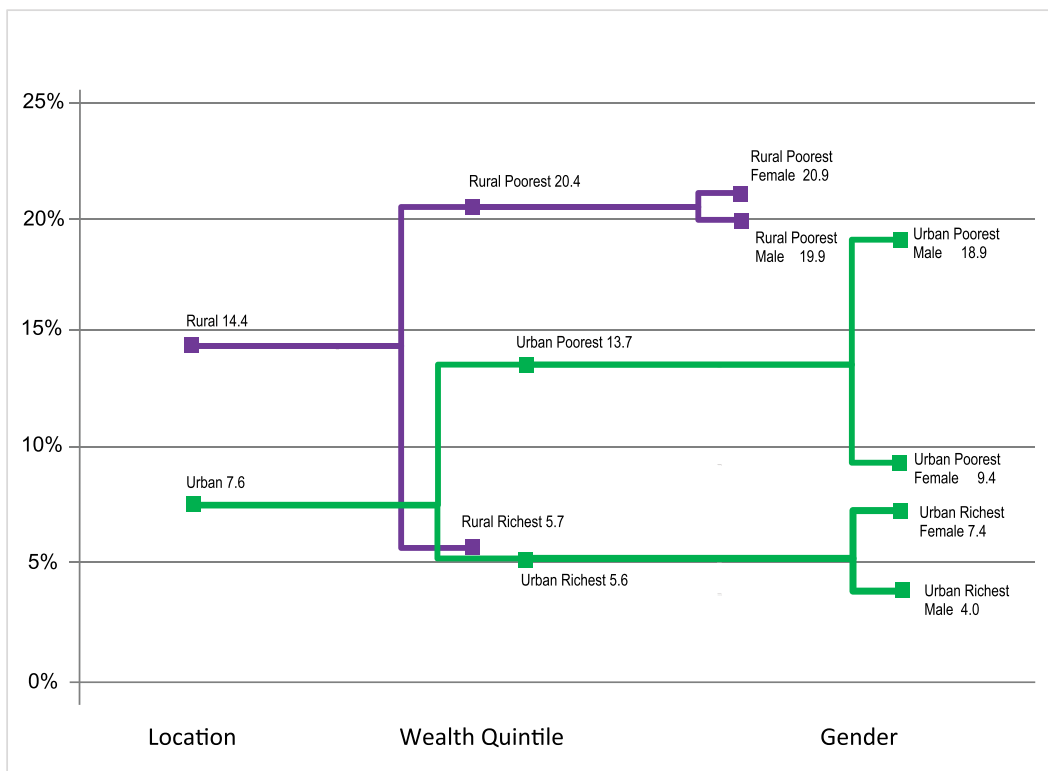


Source: Author's calculation from CSES 2004, 2008 and 2012

12 An incomplete school is a school which has less than all six grades of primary (it may be one grade or more that is missing).

Based on the figure below, it is possible to identify the most excluded groups of children aged 6 to 11 years based on a number of characteristics. The disparities in this age group are less pronounced when overlaying location, wealth and gender than among 5 - year - olds. Nevertheless, the figure illustrates that a girl from the poorest quintile living in a rural area is the most likely to be out of school at this age (out-of-school rate of 20.9 per cent). Poor rural girls and poor rural and urban boys are most susceptible to exclusion, while wealthy rural and urban children are almost fully included in schooling.

Figure 2-2: 6 - 11 - Year - Old OOSC Rate by Location, Wealth Quintile and Gender



CSES, 2012

The profile of out-of-school children at the primary age of 6 to 11 years can be summarized as:

- CSES 2012 estimates there are some 1.9 million children aged 6 to 11 years in Cambodia. This estimate is based on the weighted figure of the CSES 2012 data. Of this number, 18.7 per cent live in urban areas and 81.3 per cent in rural areas.
- The average NAR in this age group is 86.1 per cent and there is gender parity in primary school participation. The urban NAR is 91.6 per cent, which is considerably higher than the rural NAR of 84.8 per cent.
- The percentage of out-of-school children was 13.2 per cent in 2012, an improvement from 22.8 per cent in 2004. This means

that more than one in 10 children of primary school age did not attend school in 2012, however, the majority of these children (80.2 per cent) are likely to enter school at a later stage.

- In general, boys and girls have similar out-of-school rates at the primary school level, however there is a marked difference between urban and rural areas. The out-of-school rate in urban areas is 7.6 per cent, compared with 14.4 per cent in rural areas, double that of urban areas.
- There is a major disparity in the out-of-school rates between the wealthiest and the poorest households. The out-of-school rate of the wealthiest quintile of households is 5.6 per cent, compared to 20.1 per cent

of the poorest quintile of households. A contributing factor may be the higher number of children in households in lower wealth quintiles compared to households in higher wealth quintiles, forcing parents to make difficult decisions regarding which children to send to school.

- Girls from the poorest quintile in rural areas are the most likely to be out of school (20.9 per cent). Poor rural and urban boys are also susceptible to exclusion, while wealthy rural and urban children are almost fully included in schooling.

2.2.2. DIMENSION 3: OUT-OF-SCHOOL ADOLESCENTS OF LOWER SECONDARY SCHOOL AGE

Dimension 3 represents children of lower secondary school age who are not in primary or secondary school. Four indicators are used to measure this group: NAR, ANAR, attendance rate in primary grades and the out-of-school rate. All involve only children who are at the lower secondary school age of 12 to 14 years. NAR represents the percentage of lower secondary age children attending lower secondary school, while ANAR takes into consideration those who have moved into upper secondary school. The lower secondary attendance rate in primary grades measures children aged 12 to 14 years who are still in primary school. The lower secondary out-of-school rate shows the percentage of children who are not attending any level of education. The formulas used to calculate the indicators are:

Lower secondary Net Attendance Rate (NAR) =	$\frac{\text{Number of children age 12-14 attending lower secondary school}}{\text{Total number of children age 12-14}}$
Lower secondary Adjusted Net Attendance Rate (ANAR) =	$\frac{\text{Number of children age 12-14 attending lower or upper secondary school}}{\text{Total number of children age 12-14}}$
Lower secondary Attendance Rate in Primary Grade =	$\frac{\text{Number of children age 12-14 attending primary school}}{\text{Total number of children age 12-14}}$
Lower secondary out-of-school rate =	$100 \text{ per cent} - \text{lower secondary ANAR} - \text{percentage of children aged 12-14 attending primary grades}$

Table 2-6 presents the lower secondary NAR, ANAR and out-of-school profile of children aged 12 to 14 years in Cambodia. It is important to note that enrolment in lower secondary education increased from 226,000 to 415,700 students, an increase of 84 per cent between 1998/99 and 2002/03. At the national level, the lower secondary NAR is 33.1 per cent. Children from the wealthiest household quintile have the highest rate of all the sub-groups, at 57.6 per cent. The NAR of lower secondary aged girls and boys is 35.2 per cent and 31.1 per cent respectively, meaning that fewer boys of the correct age participate in lower secondary school. It is possible that boys are slightly more likely to be in primary school and more likely to be out of school than girls, due to the high opportunity cost of employment in the agricultural and construction sectors.

Of all children of lower secondary age, 88.6 per cent are attending school – primary, lower secondary or upper secondary. The out-of-school rate for children aged 12 to 14 years nationwide is 11.4 per cent, or roughly 107,000 young people. The vast majority of children aged 12 to 14 years are still in primary school (54.4 per cent); the ANAR (children in lower and upper secondary school alone) is extremely low, at 34.2 per cent. As a result, many children aged 12 to 14 years are considered to be at risk of not completing basic education due to being over-age (see the discussion of Dimension 5 in Section 2.3).

Table 2-6: School Attendance of Lower Secondary School Age Children (12-14 years) 2012

	Attending Primary	Attending Lower Sec (NAR)	Attending Upper Sec	ANAR	Aggregated Attendance Rate Primary, LS and US	Out-Of-School	
						%	No.
Cambodia	54.4	33.1	1.2	34.2	88.6	11.4	107,401
Gender							
Male	55.5	31.1	0.8	31.9	87.4	12.6	61,597
Female	53.3	35.2	1.5	36.7	90.0	10.0	45,804
Area							
Urban	49.0	45.0	2.4	47.4	96.5	3.5	6,494
Rural	55.7	30.2	0.9	31.0	86.7	13.3	100,907
Wealth Quintile							
Q 1 (Poorest)	58.4	17.3	-	17.3	75.8	24.2	95,293
Q 2	66.7	21.4	0.6	22.0	88.7	11.3	65,418
Q 3	57.7	31.2	1.0	32.2	89.9	10.1	51,392
Q 4	40.2	55.5	1.4	56.9	97.1	2.9	28,503
Q5 (Wealthiest)	34.4	57.6	4.8	62.4	96.8	3.2	9,122

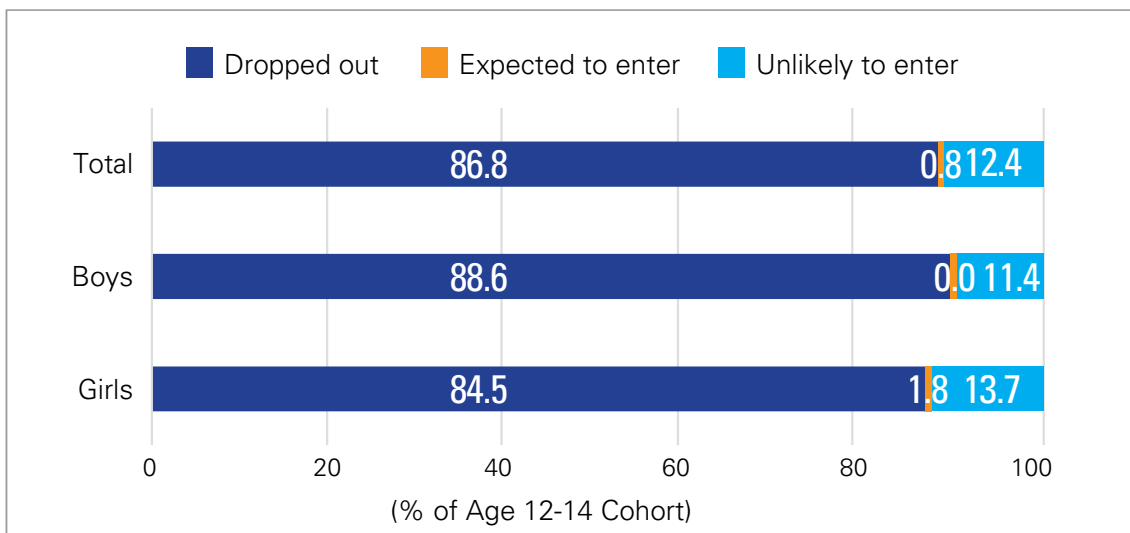
Source: Author's Calculation from CSES 2012

Table 2-7 provides further details on the profiles of lower secondary aged children (12 to 14 years) who are out of school. The total out-of-school rate is 11.4 per cent, which comprises:

- 86.8 per cent children who drop out
- 0.8 per cent have never entered school but are expected to attend school
- 12.4 per cent have never entered and are unlikely to attend school

The majority of the lower secondary age children who are out of school have dropped out. The cumulative 'never attended' rate for out-of-school children aged 12 to 14 years is 13.2 per cent. It can be assumed that it is unlikely that this group of young people, roughly 15,000, will participate in formal education.

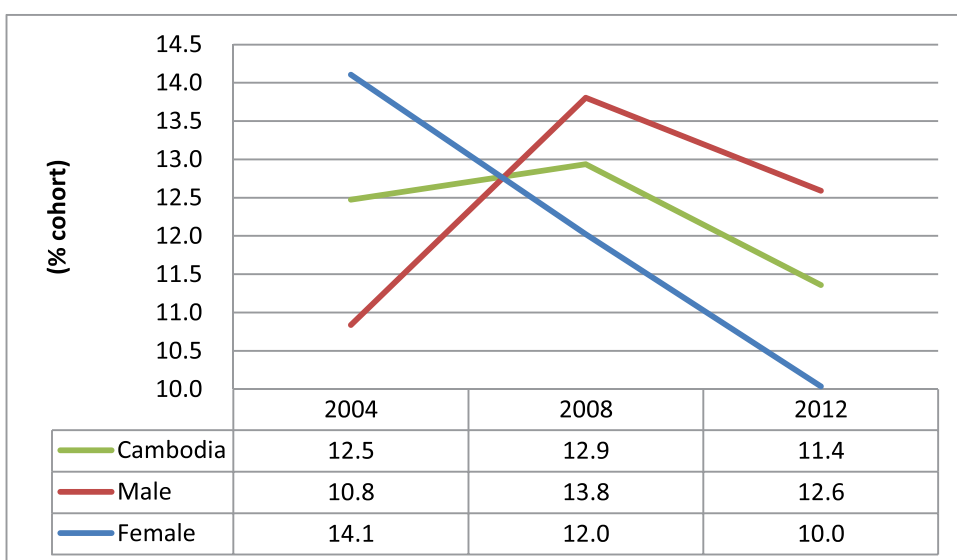
Table 2-7: Lower secondary age (12 - 14 years) out-of-school children profile



Source: Author's calculation from CSES 2012

From a multi-year perspective, Cambodia has had less success in reducing the lower secondary age (12 to 14 years) out-of-school rate than primary age. The lower secondary out-of-school rate was 12.5 per cent in 2004 compared to 11.4 per cent in 2012. A more significant improvement relates to girls, where out-of-school rates have reduced from 14 per cent in 2004 to 10 per cent in 2012. This can be attributed to a variety of factors, including lower secondary scholarship programmes provided by non-governmental organizations (NGOs) targeting girls and poor children, the MoEYS girl counselling programme, and the slightly lower opportunity costs for girls than boys. Meanwhile, the male out-of-school rate increased from 10.8 per cent in 2004 to 13.8 per cent in 2008, then declined to 12.6 per cent in 2012. There was an overall increase relative to 2004, which points to the need for carefully designed gender-sensitive social protection programmes.

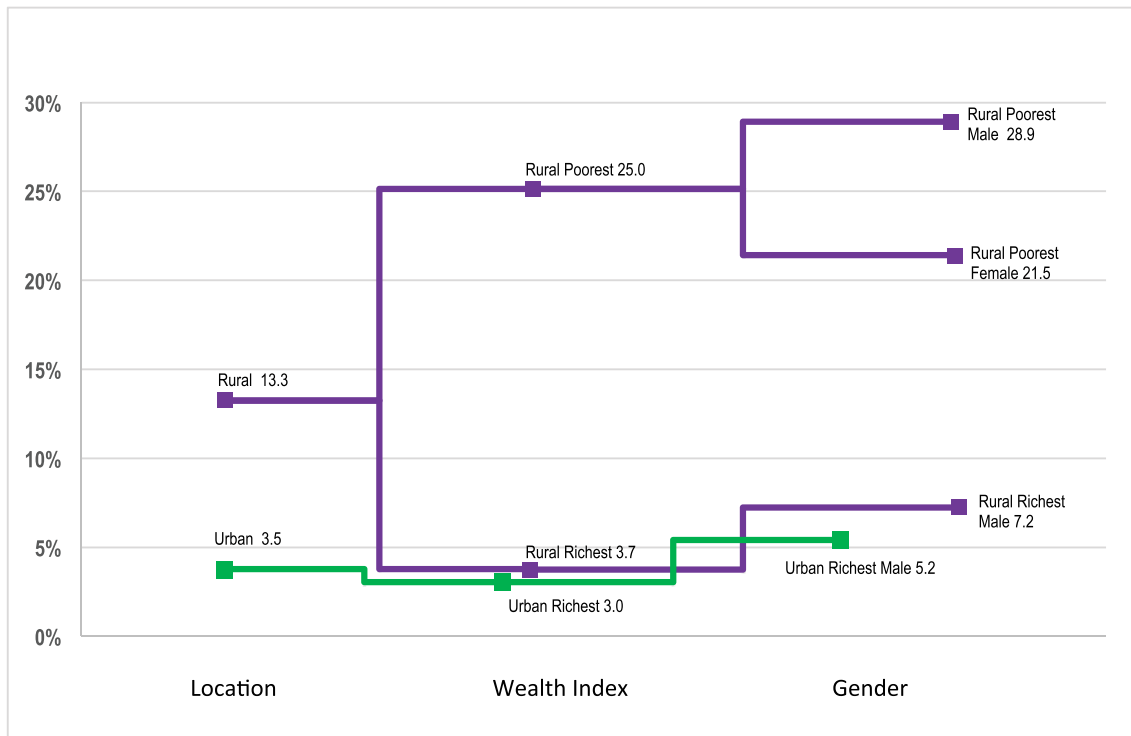
Table 2-8: Multi-year comparison of lower secondary age (12 - 14 years) out-of-school children



Source: Author's calculation from CSES 2004, 2008 and 2012

Deeper analysis of the multiple characteristics affecting children's attendance shows that poor boys from rural areas are the most likely to be out of school (at 28.9 per cent) while wealthy boys and girls in urban areas have an unsurprisingly low out-of-school rate of only 3 per cent.

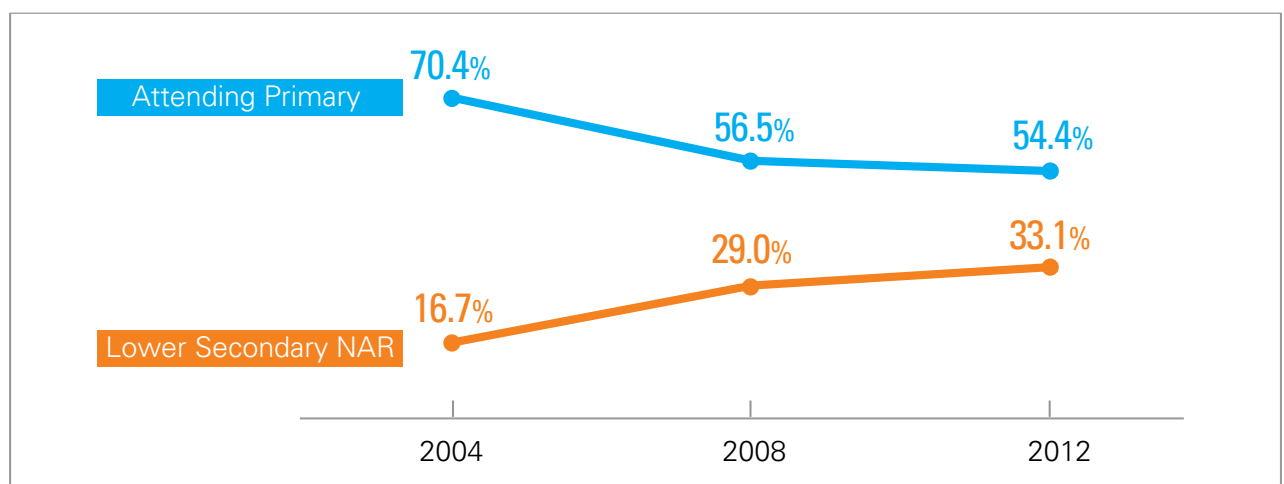
Figure 2-3: 12 - 14 Year Old OOSC Rate by Location, Wealth Quintile and Gender



CSES, 2012

The apparent lack of progress in reducing the out-of-school rate for ages 12 to 14 years is linked to the existence of a high proportion of students aged 12 to 14 years in primary school. In 2004, the lower secondary NAR was only 16.5 per cent, while 70.4 per cent of the age cohort was still in primary school. In 2008, the NAR increased to 29.0 per cent and the share of the cohort in primary school fell to 56.5 per cent. In 2012, the NAR further improved to 33.1 per cent and the primary education share fell to 54.4 per cent (see Figure 2-4). This shows an encouraging gradual increase in the efficiency of the system, although the 'rate' of change is perhaps too slow to reduce the risk of drop out by the many over-aged children.

Figure 2-4: Multi-year comparison of school participation, age 12 - 14 years



Source: Author's calculation from CSES 2004, 2008 and 2012

Much needs to be done to improve lower secondary school participation and retention. Despite more than doubling the number of lower secondary schools from 2004 to 2012, the lower secondary gross enrolment rate and net enrolment rate remain low, at 55 per cent and 33 per cent respectively in school year 2011/12 according to EMIS data. The bottlenecks behind low participation and retention rates will be discussed further in Chapter 3.

Table 2-9: Selected lower secondary education statistics, EMIS 2004 - 12

	2003-4	2007-8	2011-12
Lower Secondary Schools	688	1,303	1,597
Lower Secondary Enrolment	459,986	637,629	541,147
Number of Grade 9 Students	116,219	169,055	146,106
Percentage of Grade 9 Students	25.3	26.5	27.0
Primary to Lower Secondary Transition Rate	82.7	78.9	79.3
Lower Secondary Drop-Out Rate	21.2	21.0	21.7

Source: MoEYS/EMIS 2003/4, 2007/8, 2011/12

The profiles of out-of-school children at the lower secondary age of 12 to 14 years can be summarized as:

- CSES 2012 estimates that there are 945,585 children of lower secondary age (12 to 14 years) in Cambodia, of whom 48.3 per cent are girls and 51.7 per cent are boys. Of this population, 19.5 per cent live in urban areas and 80.5 per cent in rural areas.
- The percentage of out-of-school children aged 12 to 14 years stands at 11.4 per cent, higher for boys (12.6 per cent) than girls (10.0 per cent). The ANAR in the age group (those attending lower and upper secondary school) is 34.2 per cent while 54.4 per cent of 12 to 14 - year - olds attend primary school. Hence there is a large proportion of over-age children in primary school who are at risk of dropping out before completing basic education.
- A higher percentage of girls than boys attend lower secondary at the correct age. There is a higher percentage of boys of lower secondary age attending primary school. Of 12 to 14 - year - olds, the rate is 35.2 per cent for girls to 31.1 per cent for boys in lower secondary grades, and 53.3 per cent for girls to 55.5 per cent for boys in primary grades.
- Overall, there continues to be a sizeable difference in school attendance between urban and rural areas. As expected, the lower secondary NAR is significantly better in urban areas, at 45.0 per cent, than in rural areas, at 30.2 per cent. The average out-of-school rate in urban areas is 3.5 per cent while in rural areas it is 13.3 per cent. Poor boys from rural areas are the most likely to be out of school (28.9 per cent), while only 3 per cent of wealthy boys and girls in urban areas are out of school.

2.3. DIMENSIONS 4 AND 5: CHILDREN AT RISK OF DROPPING OUT OF PRIMARY AND LOWER SECONDARY SCHOOL

While poor academic performance is a proxy indicator of being at risk, Cambodia has very little data on children’s learning outcomes at primary and lower secondary levels. There is currently more demand among MoEYS policy makers for assessment data, and various assessment initiatives are being initiated or re-invigorated. Since 2014/2015, MoEYS has been collecting data on learning outcomes by subject and grade at primary and lower secondary levels through EMIS (known as ‘QEMIS’).

Given the lack of data on student performance or real-time school attendance records, ‘at-risk’ students will be categorized as those who are at least two years older than the official grade-specific school age as the proxy indicator. These children are likely to drop out of school before completing basic education. In Table 2-10 below, the red cells represent over-age students for each grade. For example, all the students learning at Grade 1 who are aged 8 years or older are considered at-risk, as the official age for Grade 1 is 6 years old.

Table 2-10: Over-aged students by grade level

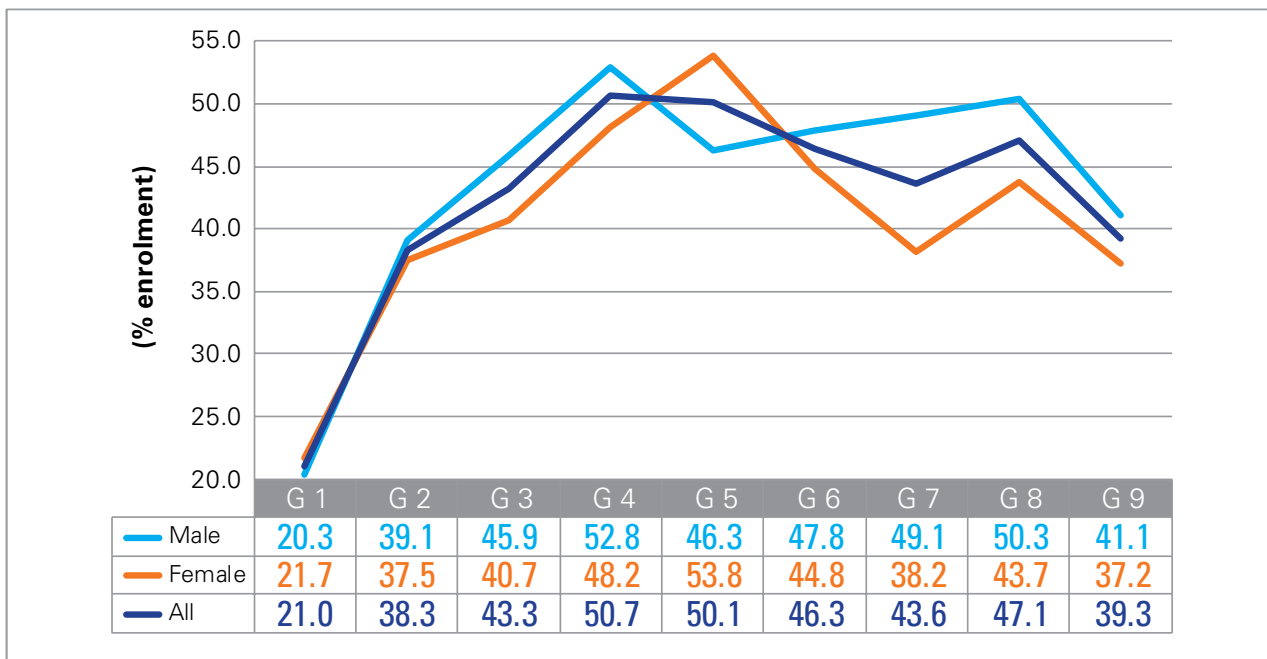
Education Level	Age	6	7	8	9	10	11	12	13	14	15	16	17+
Primary	Grade 1	Not At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk
	Grade 2	At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk
	Grade 3	At Risk	At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk
	Grade 4	At Risk	At Risk	At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk
	Grade 5	At Risk	At Risk	At Risk	At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk
	Grade 6	At Risk	At Risk	At Risk	At Risk	At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk
Lower Secondary	Grade 7	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk	At Risk
	Grade 8	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	Not At Risk	At Risk	At Risk	At Risk	At Risk
	Grade 9	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	At Risk	Not At Risk	At Risk	At Risk	At Risk

Not At Risk
 At Risk: Over-age by 2+ years

As shown in Table 2-10, the percentage of at-risk students from Grades 3 to 8 is relatively constant at more than 40 per cent. It is highest at Grades 4 and 5. Boys appear to be more at risk than girls (except for Grade 5), and girls are more likely to stay in school at an older age.

While the data shows that the proportion of over-aged children in school has reduced significantly since 2004 (see Table 2-11) this remains a major challenge and shows the inefficiency of the education system. Being over-age is the result of various factors, including late entry to Grade 1, high repetition rates in the early grades of primary, frequent absenteeism due to parental economic migration (see Section 3.3.3), and the need for children to do seasonal farming (see Section 3.3.2).

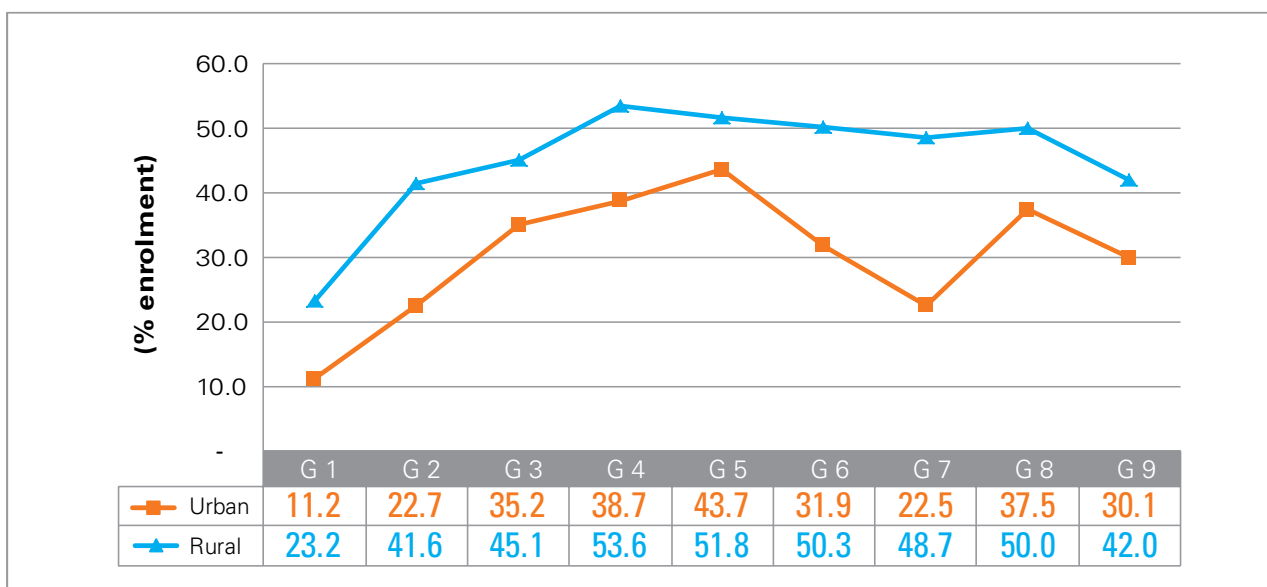
Table 2-11: Students over-age by 2+ years, by grade and gender 2012



Source: Author's calculation from CSES 2012

Table 2-12 shows a snapshot of urban and rural differences in the share of over-age students by grade who may be at risk of dropping out. Rural areas have a significantly higher share of at-risk children than urban areas. In rural areas, the share of over-age students is sustained at around 50 per cent from Grades 4 to 8. In urban areas, the proportion of at-risk children peaks at Grade 5. It is noteworthy that children in their penultimate year of primary seem to be a particularly vulnerable to dropping out, perhaps due to the accumulation of over-age and the rising opportunity cost.

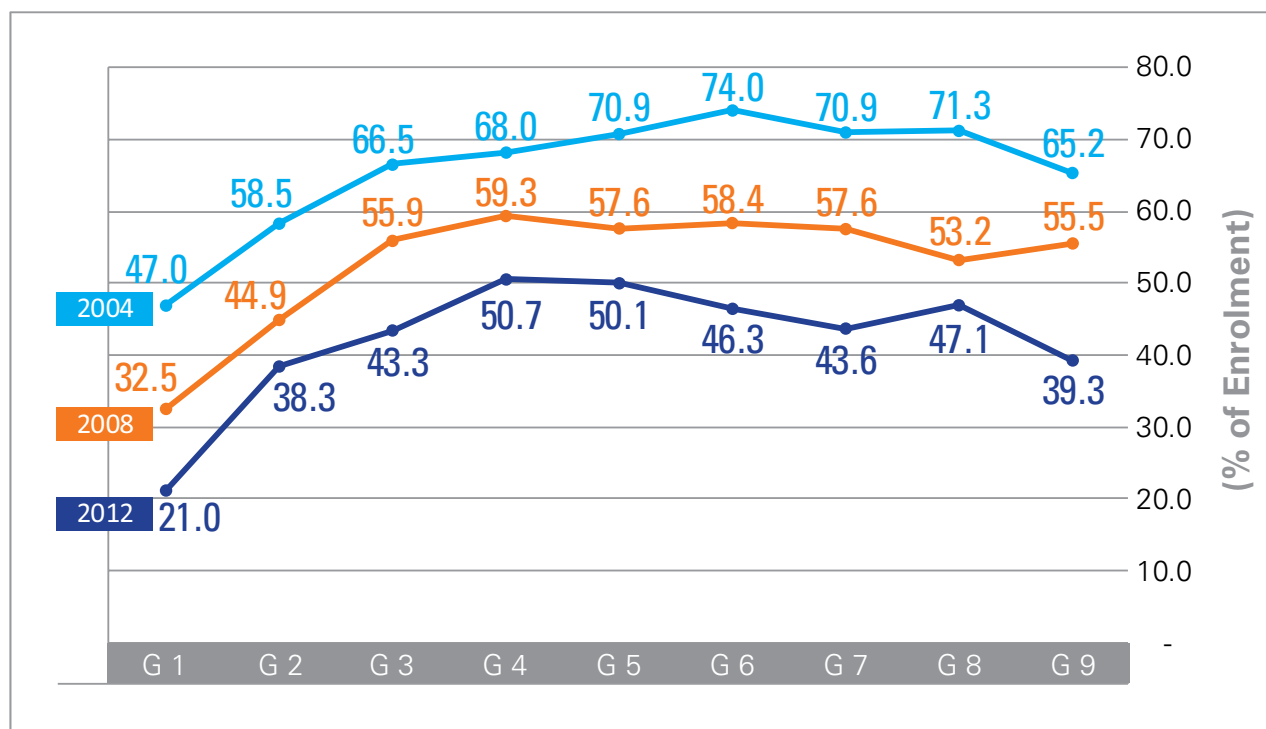
Table 2-12: Students who are two or more years over age for their grade, by grade and location, 2012



Source: Author's calculation from CSES 2012

In real terms, the total estimated number of at-risk students in basic education is almost 1.2 million, equivalent to 21 per cent, including nearly 950,000 primary pupils. More than 85 per cent of at-risk students are in rural areas. It should be noted that these figures do not represent the likely number of students who drop out in a single year. Being over-age is simply a proxy measure of being at risk.

Table 2-13: Multi-year comparison of at-risk students (two or more years over age for their grade)



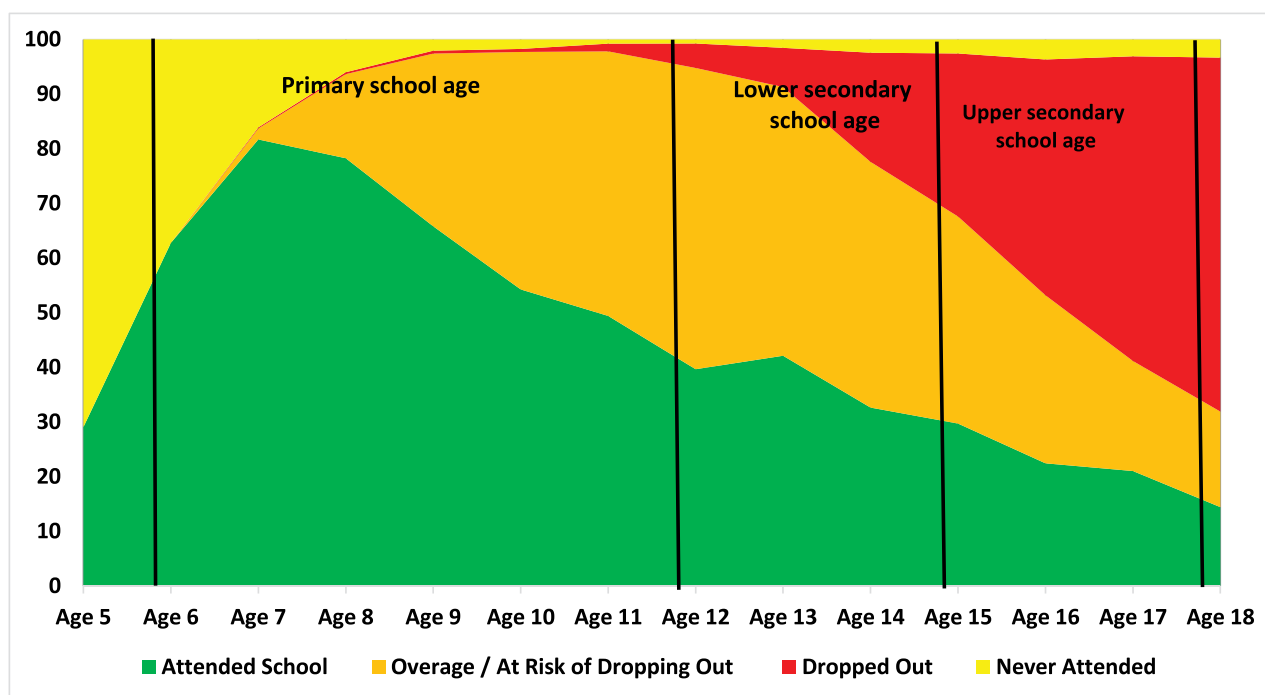
Source: Author's calculation from CSES 2004, 2008, 2012

A related analysis is of the share of students attending the right grade at the right age (e.g., age 6 at Grade 1), or grade level net attendance rate. As noted above, there has been marked improvement since 2004. However, high repetition rates remain the main challenge in sustaining the NAR. In 2012, Grade 1 had a NAR of 41.8 per cent which reduced to only 14.6 per cent in Grade 9, showing the very low proportion of correctly aged children at the end of lower secondary school.

2.4. ANALYTICAL SUMMARY OF CHILDREN'S ATTENDANCE IN AND EXCLUSION FROM EDUCATION

The figure below is an overview of children who are in and out of school by age and those who are at risk of dropping out. It shows that while the majority of 6 to 15 - year - olds are in school, a substantial proportion are at risk of dropping out due to being two or more years over their age for grade. Those who have never attended school are concentrated among the 5 - year - olds and they are likely to start their education between the ages of 6 and 8 years. Those who have dropped out are mainly aged 14 to 18 years.

Figure 2-5: Overview of the five dimensions of out-of-school children by age group



Source: Author's calculation from CSES 2012

Table 2-14: Overview of the five dimensions of out-of-school children by age group (in percentages)

	Attended School	Overage / At Risk of Dropping Out	Dropped Out	Never Attended
Age 5	29.1	0.0	0.0	70.9
Age 6	62.8	0.0	0.0	37.2
Age 7	81.7	2.0	0.2	16.1
Age 8	78.3	15.4	0.4	6.0
Age 9	65.8	31.6	0.5	2.1
Age 10	54.3	43.5	0.6	1.7
Age 11	49.4	48.4	1.4	0.8
Age 12	39.7	55.1	4.5	0.7
Age 13	42.1	49.2	7.2	1.5
Age 14	32.6	45.0	20.0	2.4
Age 15	29.7	37.9	29.8	2.6
Age 16	22.4	30.8	43.2	3.7
Age 17	21.0	20.1	55.7	3.1
Age 18	14.4	17.5	64.8	3.3

Source: Author's calculation from CSES 2012



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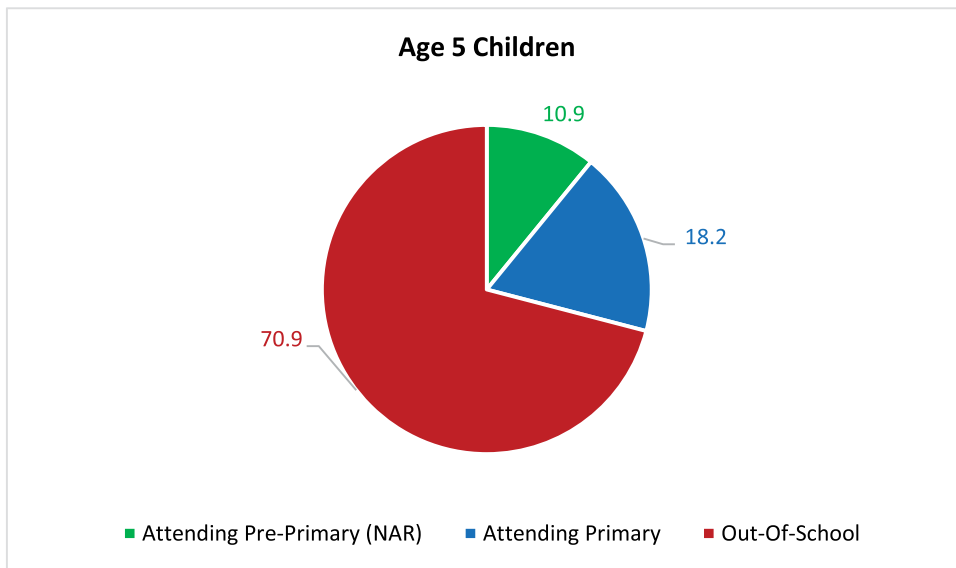
The table above shows that the highest proportion of children who have never attended school are those aged 5 years, however it is likely that the majority of these children will enrol in primary school in due course, although many will 'miss out' on pre-school and are therefore at greater risk of subsequently dropping out.

The peak of school attendance is among 7 to 9 - year - olds (highest among 9 year - olds at 97.4 per cent). Due to being over age, 55 per cent of 12 - year - olds are at risk of dropping out, while 55.7 per cent of 17 year - olds have dropped out of school and only 41.1 per cent are in school.

The graph shows that the proportion of over-aged children tapers as children reach 14 years and older, which also corresponds to the time when drop out increases, showing the link between being over aged and dropping out.

More specifically, in relation to Dimension 1, school attendance among 5 - year - olds remains a major challenge, with 71 per cent not attending either pre-school or primary school. The comparatively low coverage of state pre-schools, together with the insufficient demand for early childhood education among parents results in a very high out-of-school rate for 5 - year - olds. This constitutes a sizeable challenge for the whole education system and children's learning more broadly. Table 2-15 below captures attendance rates among 5 - year - olds. As described above, children from the poorest families from both rural and urban areas form the majority of children who are out of school at this age.

Figure 2.6: Overview of Dimension 1: School attendance among 5 - year - olds

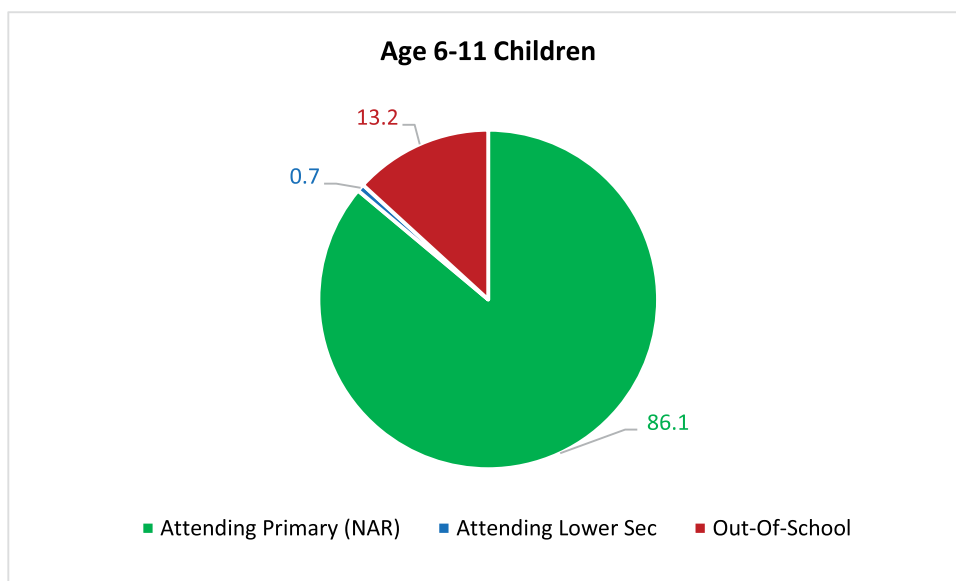


Source: Author's calculation from CSES 2012

Dimension 2 is more positive. There has been significant progress in increasing the participation of 6 to 11 - year - olds in school. Primary enrolment increased from 2.09 million students in 1998/99 to 2.75 million in 2002/03, an increase of 31 per cent over the five-year period. The percentage of 6 to 11 - year - olds who are out of school reduced from 23 per cent in 2004 to 13 per cent in 2012 (see Table 2-16 below). As expected, there is a disparity in the out-of-school rates between the wealthiest and poorest households – 20 per cent in the poorest quintile and 6 per cent in the wealthiest quintile of households. The out-of-school rate is almost twice as high in rural areas (14 per cent) as in urban areas (8 per cent).

Table 2-14 on page 52 shows that 37.2 per cent of all 6 - year - olds have not attended pre-school and have not yet entered primary school, which means these children will be over age.

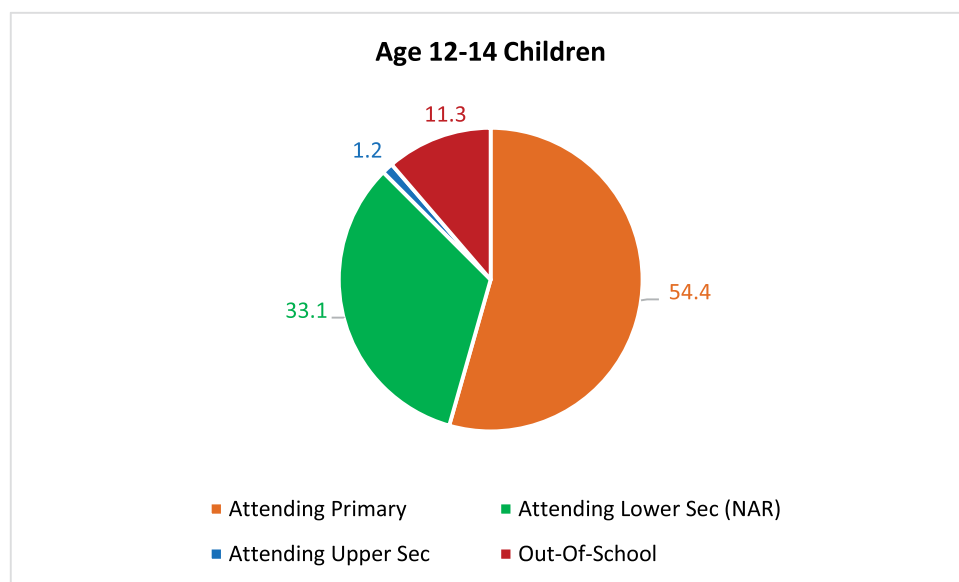
Figure 2.7: Overview of Dimension 2: School attendance among 6 to 11 - year - olds



Source: Author's calculation from CSES 2012

The third dimension, focusing on children aged 12 to 14 years, shows an out-of-school rate of 11 per cent in 2012 (roughly 107,000 young people), a modest reduction from 13 per cent since 2004 (and a reduction from 14 per cent to 10 per cent for girls over the same period). This age group appears to be particularly sensitive to urban-rural disparities, with the average out-of-school rate in urban areas being 4 per cent while in rural areas it is more than three times higher, at 13 per cent. Enrolment in lower secondary education increased from 226,000 to 415,700 students, or 84 per cent, between 1998/99 and 2002/03.

Figure 2.8: Overview of Dimension 3: School Attendance among 12 - to 14 - year - olds



Source: Author's calculation from CSES 2012

Among 12 - to 14 - year - olds, 89 per cent attended either primary, lower secondary or upper secondary school. It is noteworthy that the majority of this age group attended primary school (54 per cent), which is a symptom of the comparatively inefficient education system (see Table 2-17 above.) There have, however, been major improvements in this area. In 2004, as many as 71 per cent of this age group attended primary school. This shows an encouraging gradual increase in the efficiency of the system although the 'rate of change' may be too slow to reduce the risk of drop out by the many over-age children. The ANAR for this age group (those attending lower or upper secondary education) is only 34 per cent.

In relation to Dimensions 4 and 5, the total estimated number of at-risk students in basic education (two or more years over age) is 1.2 million, equivalent to 21 per cent. This includes nearly 950,000 primary pupils. More than 85 per cent of at-risk students are in rural areas. It is important to note that these figures do not represent the likely number of students who drop out in a single year. Being over age is simply a proxy measure of being at risk. The percentage of at-risk students from Grades 3 to 8 is high at more than 40 per cent, and is highest among Grades 4 and 5.

Section 2 has sought to present quantitative data regarding children's attendance in school and those out of school, and identify trends over time. Section 3 will seek to provide a qualitative analysis regarding the reasons behind this in relation to the barriers and bottlenecks to children's full inclusion in school and learning. Understanding which children are at risk of dropping out or are out of school altogether based on their geographic location, their socio-economic status, their ethnicity and other characteristics will be crucial to informing the development of relevant education policies and programmes.



3. ANALYSIS OF SUPPLY-SIDE AND DEMAND-SIDE ISSUES AFFECTING CHILDREN'S PARTICIPATION IN EDUCATION

Based on the profiles of out-of-school children, Section 3 will analyse education provision in Cambodia. It will cover government policies, governance and financing, and the supply of education with a focus on out-of-school and vulnerable children within the context of the Government's Child Friendly Schools Policy. It will include the teaching force, curriculum, pedagogy and learning assessments, school infrastructure, water, sanitation and hygiene (WASH), and safety and protection. It will then analyse the demand-side barriers to children's inclusion in education with a focus on economic factors, health-related factors and socio-cultural factors.

This section will seek to provide an overview of both the 'push' and 'pull' factors affecting children's attendance in school. It is important to note that some elements of demand-side barriers, such as the cost of education will be discussed under 'Education Financing' while some elements of supply, such as the Government provision of multilingual education, will be discussed under 'Ethnicity' in order to avoid repetition and to enable clear conclusions to be drawn. In this way, the profiles of children identified as being out of school, as explored in the previous chapter, will come into sharper focus.



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3.1. SECTOR POLICIES, GOVERNANCE AND FINANCING

3.1.1. EDUCATION LEGISLATIVE CONTEXT

As a signatory to the United Nations Convention on the Rights of the Child, Cambodia's Constitution protects children's right to education. The Constitution explicitly references the role of the State in protecting the rights of all children from acts that are injurious to their educational opportunities, health and welfare (Article 48).

The Education Law, enacted in 2007, stipulates that every citizen has the right to access quality education of at least nine years, free of charge, in public schools. There are additional provisions on the educational rights of children from ethnic minorities and children with disabilities. It also emphasizes children's right to respect, dignity and freedom from any form of torture, physical or psychological punishment, and prohibits corporal punishment in public and private schools (Article 35).

The Education Law mandates that all parents have the obligation to enrol their children in Grade 1 when reaching 6 years of age (or 70 months). However, the law does not make primary education compulsory, which is an important constraint on educational provision and inclusion. MoEYS is actively promoting schooling through programmes and campaigns but cannot enforce this through legislative means. This leads to challenges in relation to access and completion, as some children may never attend school while other children may be removed from school with no consequences for the family (USAID, 2011).

Cambodia's Child Labour Law forbids children under 15 from working in waged employment (e.g., garment and footwear sectors) but allows 'light work' at age 12. These limits do not cover the informal sector, where many children work

largely in family-run enterprises such as farms in rural areas. This issue will be discussed further under 'Economic Demand Side'.

3.1.2. EDUCATION POLICIES

This section builds on the analysis of macro-level education policies and developments in Section 1.4 'Education Sector' and focuses on the policies linked to enrolment, attendance and completion of education.

The first policy priority in the ESP is 'Ensuring equitable access for all to education services' which entails increasing access to all levels of education with a focus on the most disadvantaged areas and children. The ESP includes two Core Breakthrough Indicators under this policy priority.

Since the inception of education reforms in the early 2000s, MoEYS has affirmed its commitment to pro-poor education to enable school participation for all children. One of the earliest policies established by the Government was the abolishment of the start-of-year school registration fee, leading to dramatic enrolment increases over 2001-2005. The Child Friendly Schools model, first piloted in 2001/02 and adopted as policy in 2007, serves to reinforce the right of all children to a relevant education of good quality through six key dimensions. In addition, district training and monitoring team members visit schools to assess the implementation of the policy.

Regarding entrance and promotion requirements, MoEYS has no entrance exams for primary or secondary school, no age limits for a grade or cycle, and no maximum promotion quotas. This is in line with the first policy priority of the ESP, 'Ensuring equitable access for all to education services'. Nevertheless, there are some constraints in relation to promotion. In the ministry's guideline, there is provision for students to sit monthly and semester tests set by their teachers. The scores are added up and averaged. If the mean score is insufficient to pass, there is a chance to sit an additional end-of-year test. If students fail again, teachers should provide remedial classes over the holiday and students could sit another test at the start of the next academic year. This gives two



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formal opportunities for students to be promoted alongside their peers, however not all schools implement the guideline with opportunities to re-sit; this has a negative impact on repetition and drop-out rates. The first major assessments are the end-of-cycle exams of lower and upper secondary levels. The Grade 12 exam is a nationally administered significant exam that determines whether students can continue to higher education. This has undergone major reform since 2014 and the results are now much more credible, with a pass rate of 41 per cent in 2014 and 56 per cent in 2015, compared to 88 per cent in 2013.

An additional policy that has an important effect on children's participation in school relates to the academic calendar. As many children throughout Cambodia are needed by their families to participate in agriculture or fishing, which have seasonal variations in the need for extra help, many children may be absent for weeks during a school term

(See Section 3.3.2). One result of absence may be falling behind in course work, leading them to need to repeat the grade. Cambodia has piloted a flexible calendar with support from UNICEF and Save the Children Norway, and this has shown promising results, especially in lowering repetition due to reduced absenteeism. MoEYS is willing to adopt the flexible calendar, but there is no official guideline to direct local education authorities and schools in its implementation.

With regard to migrant children, MoEYS has a restrictive transfer policy. It is only possible to transfer at the beginning of the school term, so children whose families change location may have to wait nearly one year to re-enter school after their move. This policy, too, may contribute to children dropping out of school. Below is a summary review of specific education policies that may affect school participation.



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Policy Areas	Status
School tuition and/or fees	Prohibited fees for first 9 years of education; abolition of the school registration fee in 2001; informal school payments still prevalent, especially in urban areas
Age limits for school cycles	None
School entrance exams	None
School calendar	National policy allows for flexible school calendar; Piloted in Stung Treng province with support from UNICEF; Limited implementation due to lack of guidelines and local education authorities have limited capacity
Class size	Limited class size in primary schools to 35 for Grades 1 to 3 and 40 for Grades 4 to 6
Access / distance to school	No limits to guide new school construction
Tracking / follow-up of absent students	Requires documentation of student absences
Uniform requirements	Requires uniforms; many NGO programs supply them as a part of their scholarship programmes
Automatic promotion / promotion quota	Requires students to pass exams at the end of each semester to progress; no quota on the number of students can be promoted
School leaving exams	Requires exam at the end of grade 9 and 12
Corporal punishment	The Teacher Code Of Conduct prohibits corporal punishment

Source: USAID 2011

3.1.3. EDUCATION PROGRAMMES

The ministry is implementing its education policy and programmes through the medium-term ESP 2014-2018. Since the early 2000s, MoEYS has introduced a number of programmes aiming to reduce drop out and promote school completion. For example, the non-formal education re-entry programme provides a second opportunity for primary-aged children who have dropped out to re-enter the formal education system. With the support of development partners, MoEYS also has a number of initiatives addressing the educational needs of out-of-school children. Below is a mapping of the MoEYS interventions against the out-of-school typology:

Out-of-school children	ESP Interventions
Never Attended Schools	<ul style="list-style-type: none"> • Multilingual Education (pre-school and primary) • Inclusive education for children with disabilities • NFE Equivalency (primary) • Literacy and Skills Training (Community Learning Centres)
At-Risk of Dropout	<ul style="list-style-type: none"> • Scholarships for the poor (primary and secondary) • School feeding (primary) • Food aid - take-home ration (primary girls) • Accelerated Learning (primary education) • Provision of school supplies, textbooks and transportation (by NGOs)
Dropped Out	<ul style="list-style-type: none"> • Non-formal education re-entry programme (primary) • Non-formal education equivalency programme (primary) • Literacy and skills training (community learning centres)

There is a special course for primary teachers in one of the teacher training colleges to equip new teachers with skills for preventing bullying of students with a disability or those who are different in some way from the majority.

Although these programmes have demonstrated positive results, they are stand-alone interventions with no links or coordination with one another. There are duplications in beneficiary groups and programme objectives due to the absence of an overall strategic framework to coordinate approaches. For example, both the non-formal education equivalency programme and the formal accelerated learning programmes target over-age students.

3.1.4. MANAGEMENT AND CAPACITY

At the national level, MoEYS sets various standards for education (e.g., pupil teacher ratio) and monitors these through its EMIS. EMIS was launched in 1996 and has been conducted annually to cover all public schools at pre-primary, primary and secondary education levels. The annual EMIS statistical yearbook provides a detailed report on the internal efficiency of the education system, such as repetition and drop out. The quality of EMIS data has improved in recent years due to implementation of the new EMIS Master Plan 2014-2018. However, EMIS is unable to capture some of the key out-of-school indicators in this report, as its census is school-based rather than household-based.

The EMIS Master Plan provides for an upgrade towards a more integrated system covering the Human Resource Management Information System, the Financial Management Information System and EMIS using a single integrated software system accessible over the internet. It is intended that the Master Plan facilitate the provision of comprehensive, shared, accurate and up-to-date information and data for planning, resource allocation, monitoring and evaluation to support a strong culture of data-driven decision making within MoEYS. It will also enable longitudinal and analytical studies to be conducted and, crucially, it will enable the tracking of individual students rather than only schools.

The following key issues within EMIS will be addressed by the Master Plan:

- Absence of participation rates from private and religious schools
- Lack of data on the vocational and skills sub-sector, higher education, assessment and financial data
- Absence of triangulation with other data sources
- Discrepancies in the quality of data
- Inadequate physical and analytical methods of verification and validation of data
- Lack of reports designed into the system capable of providing indications of data issues at the sub-national level
- Absence of studies available on the use of EMIS data for budgeting and prioritization to schools
- Un-integrated initiatives on Quality EMIS (data on learning outcomes) and student tracking system.

In 2016, MoEYS created the Special Education Department (formerly an office within the primary education department). It is responsible for a number of equity-oriented programmes. The creation of this department with a dedicated programme budget should increase institutional capacity within MoEYS to manage and oversee programmes targeting out-of-school children and children at risk of dropping out.

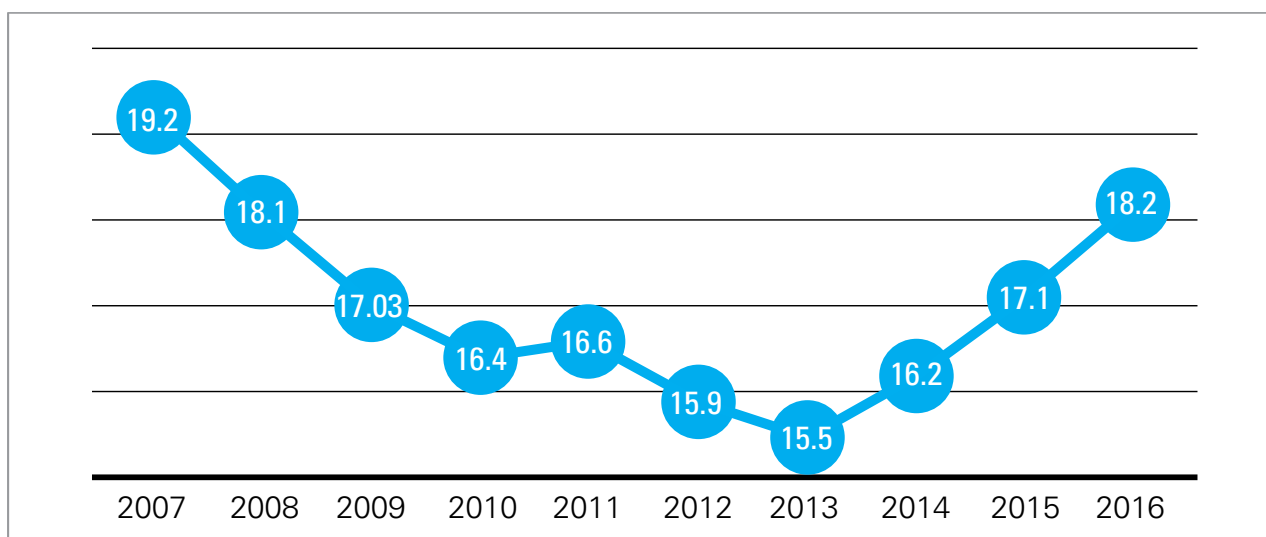
As illustrated above, the overall education policy and programming framework provide a positive school climate for disadvantaged and marginalized children. However, there remain gaps between ESP policy ambition and how these policies and programmes are being implemented at the local and school level.

3.1.5. EDUCATION FINANCING

Human resource development is one of the pillar policies in the Government's Rectangular Strategy. Since 2014, this prioritization has been reflected more clearly in the allocation of recurrent spending for education, with high-level commitment to linking budget and policy. For the first time in three years, the MoEYS recurrent budget saw an increase in 2014, mainly due to the increase in teacher salaries. In 2015 and beyond, this trend continued, reaching 18.2 per cent in 2016 (or \$507,000,000)¹³. It is envisaged that the share of the budget allocated to the education sector will continue to increase year on year, strengthening the opportunity to achieve the ESP.

13 The total 2016 budget for recurrent and capital spending amounted to \$517,000,000.

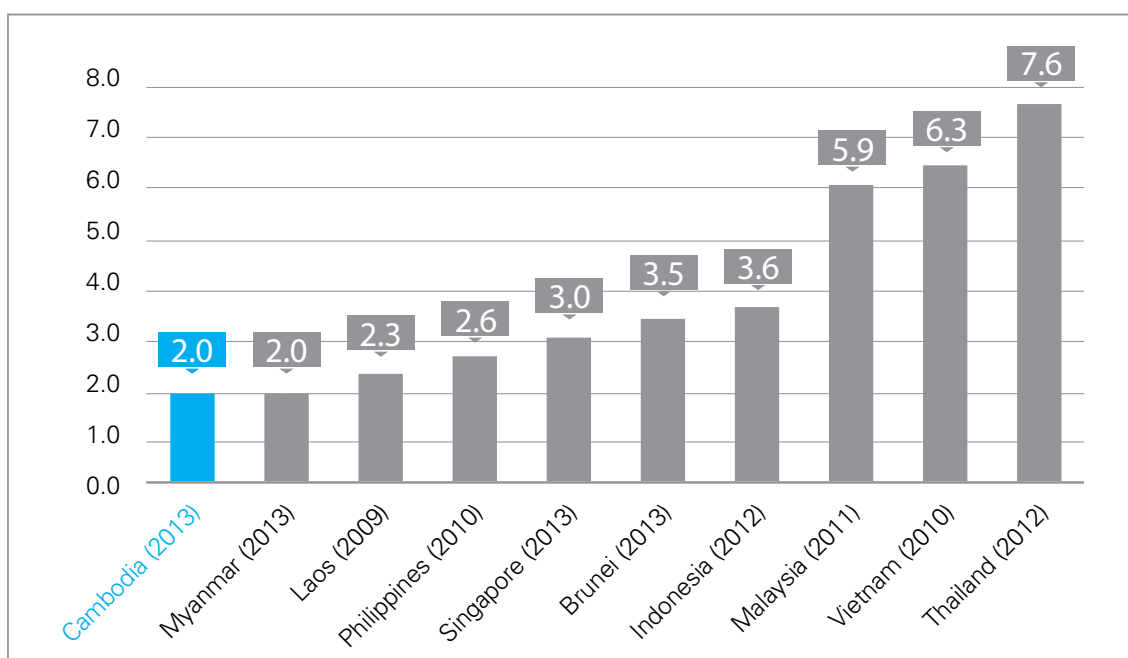
Table 3-1: Recurrent budget share of the national budget



Source: Ministry of Economy and Finance

Compared to its ASEAN neighbours, Cambodia's share of education spending as a percentage of GDP is among the lowest in the region.

Table 3-2: Education spending as a percentage of GDP, ASEAN countries¹⁴



Source: UNESCO UIS Statistics, 2015

As of 2015, the non-programme-based budget was fully integrated into the programme-based budget making it easier to plan and manage personnel in relation to sector results. The capital budget, although small, was also integrated into the MoEYS 2015 budget enabling all resources to be used to support policy priorities. For example, a significant milestone was the allocation of US\$745,000 under Chapter 21 (construction) by the Ministry of Economy and Finance for latrines and hand-washing stations in 216 schools in 2016, giving a much-needed boost to the provision of WASH facilities and promoting children's health at the school level.

¹⁴ It is expected that the Cambodian education budget will rise to 2.48 per cent of GDP and beyond in future.

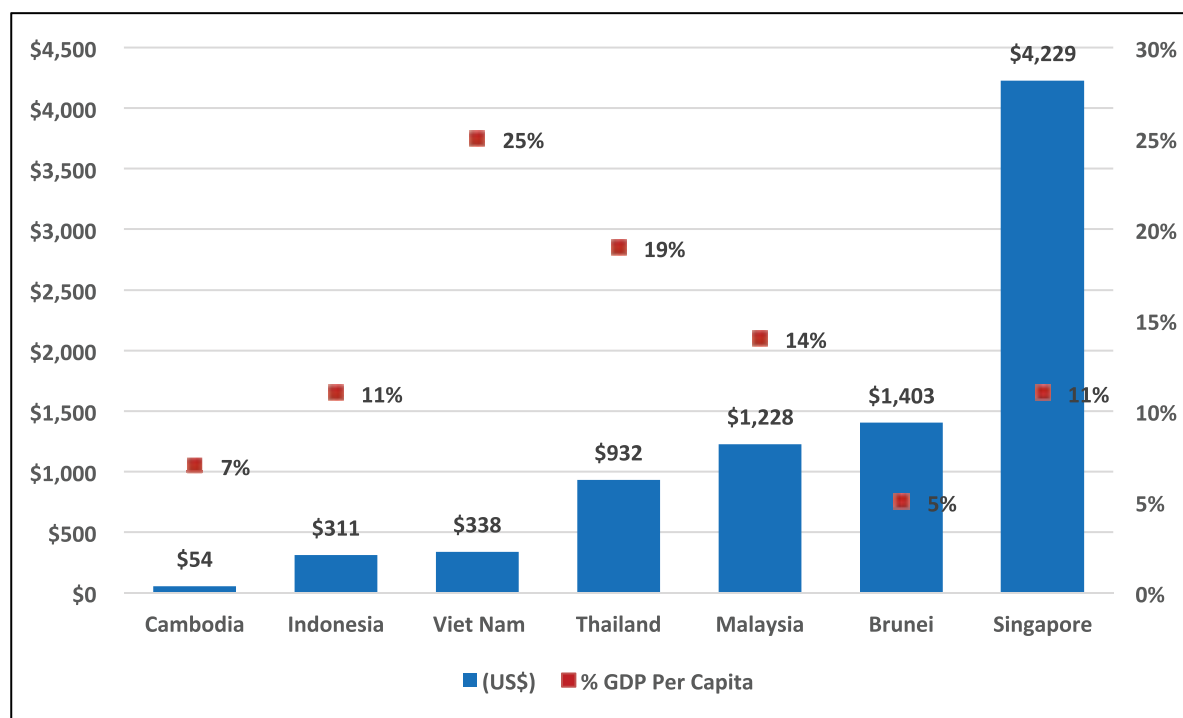
The ministry’s annual operational plan showed that in 2015, development partner funding made up 47 per cent of the education budget, excluding salaries. This was down from 62 per cent in 2014. This drop was in line with the overall reduction of official development assistance in Cambodia. It is challenging however to identify what proportion of programme budgeting and official development assistance are used to fund equity-oriented initiatives.

In 2015, 90.23 per cent of the budget was executed. Challenges in budget execution are linked to inadequate budget planning, previously centralized financial management systems, although these are now being decentralized, and at times a lack of clear financial management guidelines. In recent years, the annual education budget was underspent by between US\$20 million and US\$30 million, or around 10 per cent of the allocation. This was mainly due to over-projection of teacher needs at the provincial level. The current lack of discretion at the local level to develop tailored programmes to address the needs of out-of-school and at-risk children presents a major challenge for Cambodia, however this issue is being discussed within the context of the school-based management reform.

3.1.6. COST OF SCHOOLING

As discussed, the Government’s commitment to education is clear, with an increase in the share of total government recurrent funding allocated to the education sector. In 2003, the Government declared that basic education would be subsidized and free at the point of delivery. In terms of the Government’s capacity to secure participation of hardest-to-reach children, adequate funding at the primary education level is critical, especially considering that the cost of reaching hardest-to-reach children will be higher. Once again, Cambodia’s spending per primary pupil is well below regional norms in real terms and as a percentage of GDP per capita.

Table 3-3: ASEAN Expenditure per primary student: US\$ and as a percentage of GDP per capita, 2010



Source: UNESCO UIS Statistics (note: no data on Lao PDR or Myanmar)

A major achievement in 2013 was a change in the formula of the programme budget for schools (the school operating budget). The school operating budget makes up approximately 50 per cent of the total programme budget, which appears to be insufficient to cover all operational and development costs at the school level. UNICEF, the European Union and other development partners conducted research and equity-oriented analysis of the profiles of disadvantaged schools in Cambodia and the current structure of the school operating budget. Subsequently, recommendations were made regarding various scenarios for increasing the school operating budget with a strong focus on promoting equity. Following various meetings and discussions during the public financial management sub-technical working group and joint technical working group, the Government developed legislation to increase the school operating budget based on a formula which favours small and disadvantaged schools (in line with the recommendations). Prakas 508 was signed in May 2013. It took partial effect in 2014 and was implemented fully in 2015. Nevertheless, the weighting may be insufficient to offset the higher costs of small and disadvantaged schools. Research showed that in Kampong Thom, 10 per cent of the biggest schools received 28 per cent of total provincial school operating budget while 10 per cent of the smallest schools received only 4 per cent (Ung, Oung, Tep, 2016).

There is an acknowledgement that the legislation needs to be reviewed to provide more resources for school running costs and programmes. This is likely to be the School Improvement Fund, which would build on the school operating budget and the Swedish-supported School Improvement Grants.

In the meantime, however, parents continue to pay a substantial proportion of educational costs. CSES classifies schooling costs into seven expenditure items:

1. 'School fees'
2. Tuition¹⁵
3. Other school supplies
4. Allowances for children studying away from home
5. Transportation costs
6. Gifts to teachers, school building funds, etc.
7. Textbooks

Table 3-4 compares the estimated cost of schooling to families in 2004, 2008 and 2012, based on CSES data.

Table 3-4: Mean average cost of public schooling by education level, 2004/08/12

Educational level	2004 (US\$)	2008 (US\$)	2012 (US\$)	% Increase 2004/2012
Pre-School	10.8	6.3	43.8	306 %
Primary	9.9	18.4	67.0	577 %
Lower secondary	39.9	62.5	141.1	254 %
Upper secondary	90.1	129.9	254.8	183 %

Source: MoP/NIS CSES

¹⁵ Tuition fees refer to extra lessons outside school hours and are not the same as school fees.

The highest increase in school costs is in primary education, with a nearly sixfold increase between 2004 and 2012. Pre-school costs increased 3.5 times over the same period, although this may include private pre-schools. The cost of lower secondary education in 2012 is three times the cost it was in 2004. Higher education is the only sub-sector where the cost increase (1.6 times) is in line with the overall increase in the consumer price index from 2004 to 2012.

A possible factor for the substantial increase between 2008 and 2012 is the high inflation rate of 25 per cent in 2008, which had a ripple effect on schooling in the ensuing years even though the inflation subsided quickly to an annual average of 3 per cent from 2009 to 2012.

Table 3-5 compares the share of each expenditure item between 2008 and 2012 for pre-primary, primary and lower secondary education. Overall, 'Allowances for children studying away from home' is the biggest household expense at all three levels of basic education. In pre-primary, it constitutes 50 per cent of schooling costs, 64 per cent in primary and 57 per cent in lower secondary.

Table 3-5: Family cost of public schooling by expenditure item, 2008/2012

(US\$)	School fees	Tuition	Text books	School supplies	Allowances	Transport cost	Gifts
Pre-Primary							
2008	-	0.1	0.7	3.2	-	0.7	-
2012	6.4	0.2	1.7	3.0	24.6	5.8	1.9
Primary							
2008	1.9	3.3	2.5	4.8	5.9	1.5	0.1
2012	3.1	5.9	4.3	6.5	43.7	3.3	0.4
Lower Secondary							
2008	10.3	17.8	6.8	10.3	18.0	5.8	0.4
2012	9.9	22.6	8.5	10.8	79.2	8.1	0.6

Source: Cambodian Economic Association's Calculation from CSES

There are also great variations in the cost of public schooling between Phnom Penh and other urban and rural areas. In Phnom Penh, primary education costs nearly 3.5 times more than in rural areas, while lower secondary education costs 2.3 times more than in rural areas.

Table 3-6: Family cost of public schooling by expenditure by item and location, 2012

	Cambodia	Phnom Penh	Other Urban	Rural
Pre-School	\$43.8	\$76.8	\$45.3	\$38.7
Primary	\$67.0	\$170.5	\$108.8	\$50.9
Lower Secondary	\$141.1	\$264.8	\$208.0	\$113.5

Source: Author's calculation from CSES 2012

'Allowances' make up the largest expenditure item in schooling, especially for rural families. However, CSES does not specify what types of expenses the allowances covered. The NGO Education Partnership (NEP) conducted community-level research in 2014 and identified a range of informal fees in primary school, some of which might relate to 'allowances' such as bicycle parking fees (see Table 3-7). These expenses are most prominent in urban areas.

Table 3-7: Informal school fees in primary education

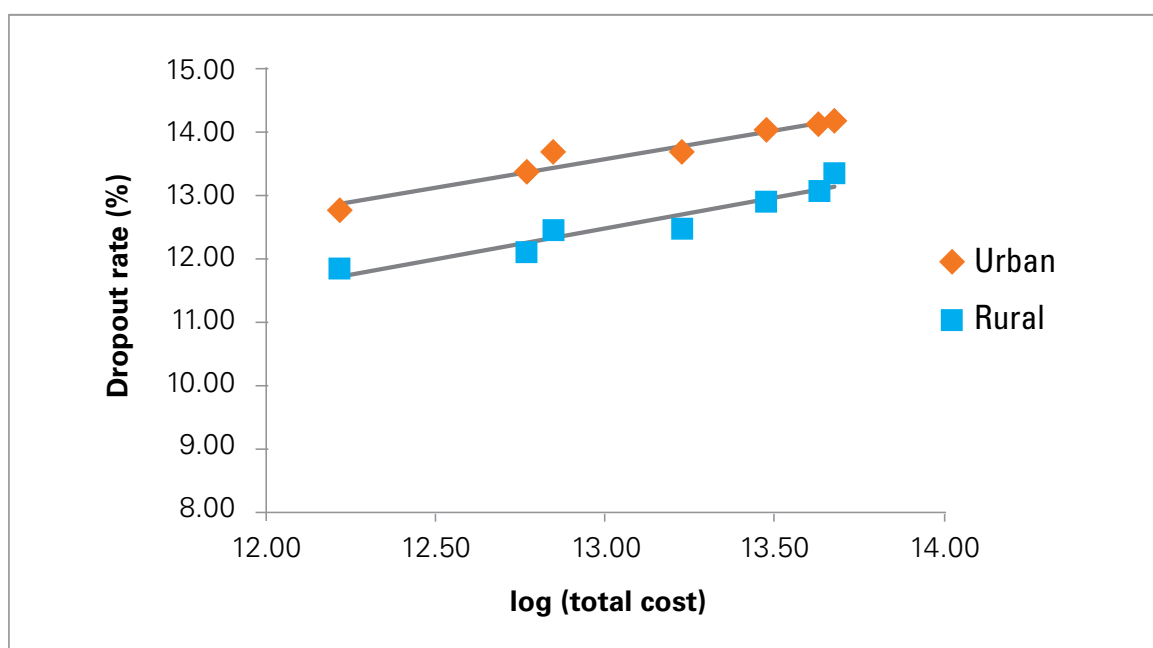
Types of expense	Student responses: Mean average of expenditure (Riels)
Bicycle parking fee	2,860 per month
Appraisal record book	1,200 per month
Examination fee	2,300 per time
Extra tuition fee in school	12,500 per month
Extra tuition fee outside school	18,400 per month
Daily Teacher's Fee	13,200 per month
Teacher's note	1,800 per time
Teacher's learning materials/stationery	1,400 per time
Present for Teacher	6,800 per year
Other expenses	1,200 per time

Source: NEP 2014, *Right to Education, community-level research*

Cambodia's history of 'shadow education' or parallel private lessons has been documented and is an interesting phenomenon for the sector. In certain cases, this is where students' regular teachers deliver lessons to existing students in their regular school following the end of the formal school day. One study showed that teachers are more client-oriented during the parallel lessons and use a different pedagogy, which is more student-centric and therefore promotes greater learning (Bray, Kobakhidze, Liu, Zhang, 2016). In some cases, the fees charged for tuition outside the formal system can make up an important part of a teacher's take-home salary. There is a risk that teachers may withhold part of the formal curriculum to incentivize students to pay for additional lessons, which would disproportionately penalize poor students. The Government has sought to address this situation, however enforcement remains weak.

The extra tuition fees outside the formal system are one of the reasons why many children are not in school. Table 3-8 shows the correlation between average education expenditure by family and drop-out rate at lower secondary school for both rural and urban areas. These informal charges are directly linked to the low salary that teachers receive and their need to find additional sources of income. It is important to note that teacher salaries have increased substantially since 2013 and the Government has pledged to increase them to US\$250 per month before July 2018. This, together with improved management and supervision of teachers, should help alleviate financial pressure on parents.

Table 3-8: Correlation between average education expenditure by the family and drop-out rate at lower secondary school



Source: Cambodia National Council for Children (CNCC) estimates based on CSES

Scholarships

MoEYS has been implementing the lower secondary scholarship programme since 2002 as part of ESP pro-poor priority interventions to alleviate the cost of schooling for poor students. Poor families receive a conditional cash transfer, provided their children enrol in school, pass school tests and have a good attendance record. The programme has had a positive impact on improving school participation (World Bank, 2009). A recent study (Cambodian Economic Association (CEA), UNICEF, 2015) simulating the effects of scholarships on the probability of drop out found that increased expenditure on education significantly affected students' decision to stay in school. The scholarship amount was set at US\$45 per year in 2004. With bold new legislation in 2015 – Anukret 34 and Prakas 2457 – scholarship beneficiaries were expanded and the amount for lower secondary students increased to US\$60¹⁶. The programme was also expanded to cover primary Grades 4 to 6 (also US\$60) and upper secondary Grades 10 to 12 (US\$90).

It is important to acknowledge this pro-poor initiative and the allocation of funds within the national budget for scholarships increasing to \$9.4 million in 2016. Nevertheless, given the extent of the demand-side barriers to education linked to poverty, particularly at lower secondary level (discussed further under 3.3., 'Demand-side Barriers to Education'), the amount of the scholarship and the coverage are

¹⁶ Anukret 34 relates to the Provision of Scholarships for Poor Students at Primary and General Secondary Education Level, and Prakas 2457 is on the Criteria and Procedures for Providing Scholarships to Poor Students at Primary and General Secondary Education Levels.

still limited. The 67,226 beneficiaries of lower secondary scholarships in 2015 only represent 7 per cent of the 12- to 14 - year - old school age population. This percentage would be even smaller if the population was extended up to 17 years given the number of over-aged children in the system. This means that scholarships are unlikely to have a significant impact on national enrolment, drop-out or completion rates of lower secondary education.

CEA (2015) research showed that children who work more than 22 hours per week are likely to be out of school. Children of lower secondary school age who have dropped out of school tend to work 42 hours per week, while children of primary school age tend to work 39 hours per week. The scholarship amount needs to take this into consideration. The simulation showed that with a scholarship of US\$90 for lower secondary aged students, the probability of drop out reduced by more than 10 percentage points; with a scholarship of US\$135 the probability reduced by more than 13 percentage points (CEA and UNICEF, 2015). As a result, there is a need to consider increasing the scholarship amount.

Where the total envelope for scholarships is fixed, it would be more effective to reduce the number of beneficiaries in order to ensure the impact of the transfer and reduce wastage. It is important to note that there are some challenges with the management and disbursement of the scholarship scheme. In some cases children do not receive the funds until very late in the school year dramatically reducing the effectiveness of the support and leading to wastage, as the children may have dropped out already.



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3.2. SUPPLY-SIDE ISSUES AFFECTING PARTICIPATION IN EDUCATION

This section will analyse the strengths and weaknesses of the supply of education with a focus on out-of-school and at-risk children. The six dimensions of the ministry's Child Friendly Schools policy will be used to structure this section, as it provides a holistic framework for children's inclusive participation in education.

3.2.1. THE TEACHING FORCE

TEACHER RECRUITMENT AND PLACEMENT

Since the massive enrolment expansion in the early 2000s, Cambodia has made good progress in expanding the teacher workforce and reducing pupil teacher ratios in primary and secondary education. In the school year 2014/15, there were 89,151 public school teachers (49 per cent female), representing an increase of 13.4 per cent from 2005/06. The primary pupil teacher ratios reduced from 50.8 in 2005/6 to 45.4 in 2014/15, while the lower secondary pupil teacher ratios saw a sharp reduction from 31.7 to 19.7 over the same period, reflecting an increased number of teachers as well as reduced enrolment in lower secondary schools. Cambodia's primary pupil teacher ratios remain the highest among ASEAN countries (Sothy, Madhur, Rethy, 2015).

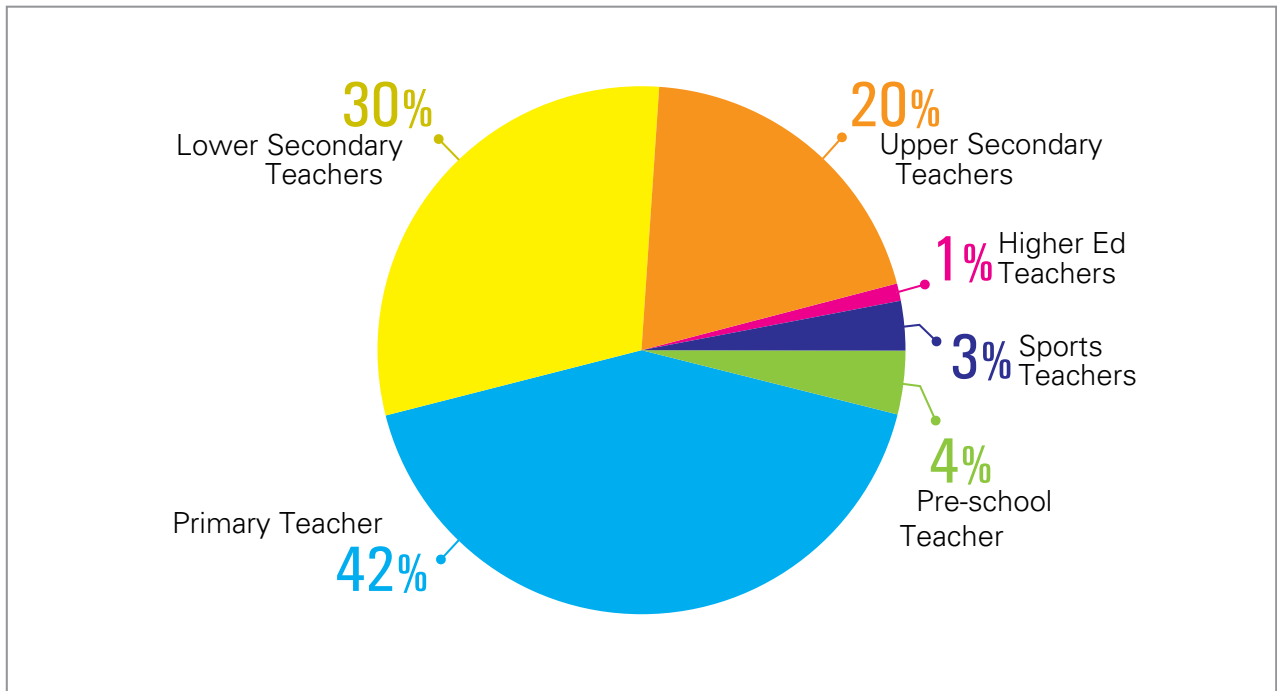
Table 3-9: Pupil teacher ratios 2005/06 and 2014/15

	2005/06			2014/15		
	Pupils	Teachers	PTR	Pupils	Teachers	PTR
State Pre-School	75,669	2,708	27.9	163,468	4,839	33.8
Primary	2,558,467	50,378	50.8	2,012,175	44,292	45.4
Lower Secondary	588,333	18,579	31.7	546,864	27,793	19.7
Upper Secondary	204,925	6,941	29.5	262,072	12,227	21.4
TOTAL	3,427,394	78,606	43.6	2,984,579	89,151	33.5
Urban	665,590	20,368	32.7	568,597	23,552	24.1
Rural	2,761,804	58,238	47.4	2,415,982	65,599	36.8

Source: MoEYS/EMIS

This expansion in teacher workforce has resulted largely from an increase in teacher training centre capacity. In 2014, the total output of the teacher training centres was around 5,000 new teachers, compared with 3,700 new teachers in 2006, an increase in teacher training centre capacity of 35 per cent. With approximately 1,500 teachers retiring and 1,000 turnovers every year, the average annual increase in the number of teachers is 2,500 (World Bank, 2014). Table 3-10 illustrates the share of new teachers by education level who graduated from teacher training centres in 2014.

Figure 3-1: New teacher graduates from teacher training centres: By education level 2014



Source: World Bank, 2014

Despite the expanded workforce, equity in teacher deployment continues to be problematic. The teacher placement system considers trainees' geographic preferences, places of residence and exit examination scores, but the system does not systematically match supply and demand. Staffing remote schools is a major challenge. According to a recent study by the World Bank, less than 20 per cent of regional teacher training centre trainees, and only 33 per cent of provincial teacher training centre trainees state a willingness to work in a remote school.

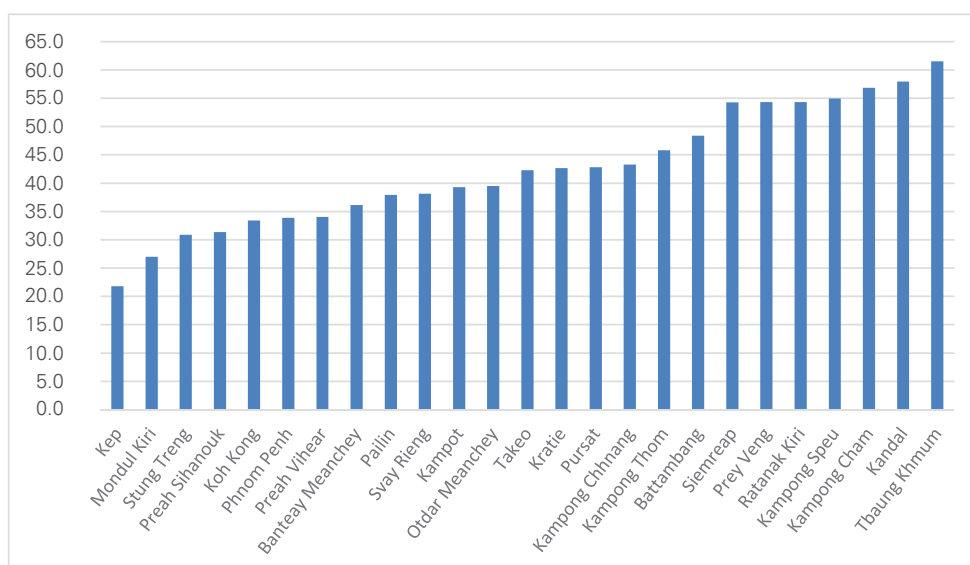
While the ministry introduced a special allowance for teachers working in difficult or remote areas in the early 2000s, the main difficulty remains retaining teachers in remote schools. New teacher trainees with high final examination scores are allowed to choose schools first, hence the poor performing trainees are more likely to be assigned to remote schools. Following completion of their duties in remote schools, teachers often seek to be transferred to more urban areas.

As a result, the remote schools are commonly staffed by less experienced and potentially less capable teachers. This is a concern for children in remote areas who may be more at risk of receiving a lower quality education and drop out as a result. Table 3-11 highlights the wide variation in primary pupil teacher ratios between provinces.



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Table 3-10: Primary education pupil teacher ratios, by province 2014/15



Source: MoEYS EMIS 2014/15

TEACHER QUALIFICATIONS

One of the ministry’s most ambitious reforms relates to teacher education and training. Through the Teacher Policy Action Plan, endorsed in January 2016, the ministry intends to upgrade the qualifications of all teachers and teacher trainers as well as the status of teacher training centres. The objectives of the plan are to:

- Attract and motivate competent people to join the teaching profession
- Ensure the quality of pre-service teacher training
- Ensure regular professional development and in-service training for teachers
- Ensure the conditions necessary for teachers to fulfil their professional roles effectively and efficiently.

For various reasons, MoEYS teachers have been trained under a number of formulas, although mainly based on 12 years of education and two years of training for basic education teachers¹⁷. By 2020, the goal is to ensure that as many basic education teachers as possible reach the new standard of a Bachelor’s degree plus one year of training or a Master’s degree plus one year of training for more senior-level teachers. The plan also includes the professionalization and systematization of in-service teacher training.

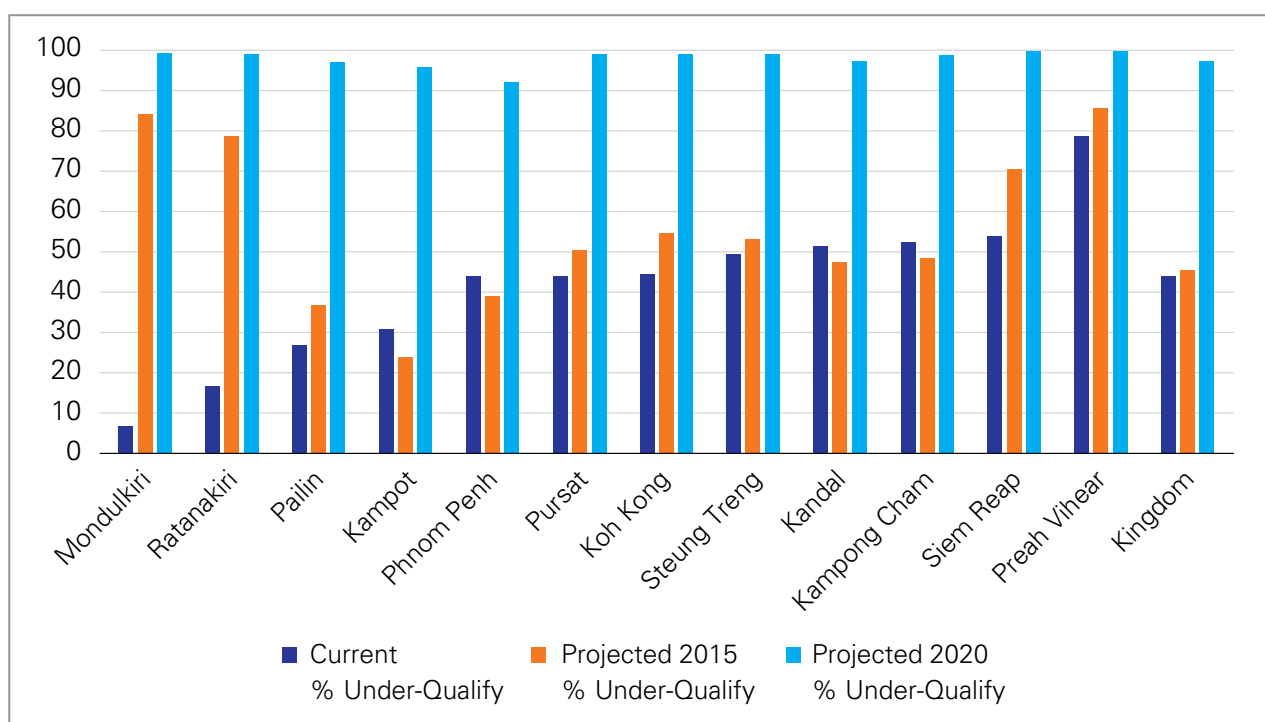
There is also provision for a substantial increase in teacher salaries to ensure due recognition for the profession and to help attract strong graduates, with the offer of various pathways into the teaching profession.

¹⁷ For primary education teachers, the current qualification refers to having completed Grade 12 (with or without the Upper Secondary Certificate) and two years of pedagogical training at the provincial teacher training centre. This applies to all provinces except Monduliri and Ratanakiri where the standard is relaxed to nine years of education with the Lower Secondary Certificate and two years of pedagogical training at the provincial teacher training centre.

Table 3-11: Overview of qualification standards by education level

Qualification	Current	2015 - 2020	2020 onward
Pre-school	12 (w/o USC) + 2	12 + 2	12 + 4 or BA + 1
Primary - Normal	12 (w/o USC) + 2	12 + 2	12 + 4 or BA + 1
Primary – Disadv. (MKR RKR)	9 + 2	12 + 2	12 + 4 or BA + 1
Lower	12 + 2	12 + 2	12 + 4 or BA + 1
Upper	BA + 1	BA + 1	MA + 1
PTTC			MA 30%
RTTC			MA 90%
NIE			PhD 90%

Figure 3-2: Proportion of under-qualified teachers in selected provinces, HRMIS, 2013



Source: UNICEF, 2014

Based on current standards of qualifications, 44 per cent of primary teachers are under-qualified (using HRMIS 2012 and 2013 data). Based on current trajectories, by 2020 in nearly all provinces the vast majority of teachers will be under-qualified, although it is important to note that this assumes no new intake of qualified staff. At national level, only 3 per cent of primary teachers would be qualified by 2020. For lower secondary teachers, the proportion rises to 13 per cent. As a result, a number of development partners are pledging priority support to implement the Teacher Policy Action Plan, including the Japanese International Cooperation Agency (JICA), the Education Capacity Development Partnership Fund, the World Bank and the Asian Development Bank.

The ministry is promoting the Teacher Policy Action Plan reform through a number of workstreams including teacher qualifications, teacher education provider standards and career pathways. There is



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acknowledgement of the pivotal role of in-service training and teacher mentoring on teaching practice in the short term. It will be crucial to ensure that equity-focused provisions are built into the reform including, for example, dedicated modules on inclusive education as well as a strategy for building up a quality and sustainable teaching force in remote provinces.

Having under-qualified teachers is a major concern for quality learning. The highest proportion of projected under-qualified teachers by 2015 was in Mondulakiri, Rattanakiri and Preah Vihear. These are provinces with high numbers of indigenous minority populations. Children from ethnic minorities face multiple barriers to learning, including distance to school, language of instruction and under-qualified teachers.

TEACHER SALARIES

Another challenge is that the teaching profession does not attract Cambodia’s top graduates due to low remuneration. Analysis of Cambodia’s labour market structure shows a noteworthy income gap between teachers and comparable professionals, and also among teachers in the region (World Bank, 2012). The table below reflects teacher remuneration prior to the reforms.

Table 3-12: Monthly income gap between teachers and other professionals, Cambodia, Vietnam and Thailand, 2009-2011

Year	Cambodia			Thailand			Vietnam		
	Teachers	Other Professions	Income Gap	Teachers	Other Professions	Income Gap	Teachers	Other Professions	Income Gap
2009	\$ 83	\$ 139	60%	\$ 518	\$ 358	145%	\$ 148	\$ 151	98%
2010	\$ 101	\$ 177	57%	\$ 565	\$ 408	139%	\$ 151	\$ 171	88%
2011	\$ 110	\$ 184	60%	\$ 632	\$ 440	147%	\$ 167	\$ 190	88%

Source: World Bank (2012) *Educating the Next Generation*

To compensate for low salaries, the majority of teachers take on extra work, with remedial classes, second jobs or tutoring. About 97 per cent of the teachers surveyed in a 2012 study reported giving remedial classes. As discussed above, private tutoring poses a potential challenge to the mainstream curricula by shifting content from regular classes to private tutorials (Brehm, Silova and Mono, 2012). Nearly half of primary school teachers, mostly in rural and remote areas, reported having a second job, usually farming in rural areas or small businesses in urban areas; this likely leads to teacher absenteeism and has a negative impact on teaching hours and quality.

In the 2014/15 school year, a primary teacher's monthly base salary was \$127.50, roughly double the average reported by teachers in the 2007 Public Expenditure Tracking Survey. Urban teachers report the highest base salaries (about 350,000 riel), followed by rural (328,000 riel) and remote (265,000 riel) teachers. The gap between urban and remote teachers is about 85,000 riel per month (\$21.25), or about 25 per cent of the average teacher's salary. Female teachers appear to earn less than their male colleagues. Almost all teachers had reported delays in receiving their salaries, however using bank transfers has addressed this issue.

Encouragingly, from April 2016, a primary teacher's base salary was \$200 per month, with secondary school salaries starting at \$250 per month, excluding functional and other allowances. Nonetheless, increases in GDP per capita mean the salaries are comparatively low (CDRI, 2015). There are plans to increase the base salary to \$250 before the 2018 elections. When implemented, this will help professionalize the teaching profession and, with strong management, facilitate greater accountability for teachers in delivering quality education through proper implementation of the curriculum and teaching hours.

TEACHER PERFORMANCE

The quality of teaching is a key factor in keeping children in school. A 2009 impact evaluation by the World Bank found that Grade 9 children

performed at the same level in math and vocabulary as out-of-school children of the same age (Filmer and Schady, 2009). The relatively low wages of teachers and the calibre of the current graduates pursuing teaching as a career may explain this data. The majority of teacher trainees enrolled in teacher training centres scored in the D and E range, while none scored in the A or B range¹⁸. Despite low admission standards, more than one-third of teacher training centres still reported difficulties in recruiting qualified candidates (World Bank, 2014). MoEYS has recently created a fast track to the teaching profession for candidates achieving Grades A and B in the Grade 12 exam.

Content and pedagogic knowledge alone are insufficient for quality teaching. Currently, the majority of teachers work in environments with minimal support, continuous professional development or interaction with other teachers. In many areas the 'technical meetings' to strengthen peer learning and support to be held on the last Thursday of each month are not implemented. The teacher evaluation system is disconnected from teacher performance, competencies or student learning. The current MoEYS teacher evaluation form, derived from the national civil servant evaluation form, assesses teachers on their merits as civil servants, rather than linking with teacher standards. This issue is being addressed through the emerging inspection system. The focus of the system is on strengthening policy implementation and developing feedback loops to schools, and upwards to policymakers, with a view to system-wide improvements. Evaluation and monitoring are important in checking the degree of compliance with national objectives and goals. The purpose of the inspection system is to strengthen children's learning by promoting effective practice and capacity for self-improvement (MoEYS and Skolinspektionen, 2013).

Due to needing a second job to supplement income, many teachers are not well prepared for their daily lessons. The 2014 World Bank study found that less than half of teachers had a lesson plan, and this was significantly lower in rural and remote schools (see Table 3-14).

18 The scale according to the Department of General Secondary Education is: A=Excellent, B=Very Good, C=Good, D=Satisfactory, E=Limited Achievement, F=Fail, with an intended even distribution across categories.

Table 3-13: Teacher preparation: Lesson plan and attendance (%)

	All schools	By location		
		Urban	Rural	Remote
Is the lesson plan written out?				
- Yes	47.6	66.2	34.7	34.7
Does the teacher mark attendance?				
- No	2.9	2.5	3.2	2.7
- Yes, but not present	6.1	0.8	9.1	17.8
- Yes, and is present	91.1	96.7+	87.7+	79.5+

Source: World Bank, 2014

Given the relative shortage of schools and teachers in Cambodia, most primary schools (76 per cent) run a double-shift system, meaning teachers are required to teach both morning and afternoon shifts and teach twice as many students. This often leads to limited time for individual student support (CDRI, 2015) and has major implications for children’s quality of learning.

3.2.2. CURRICULUM, PEDAGOGY AND LEARNING ASSESSMENTS

CURRICULUM

The Policy for Curriculum Development (2005-2009) is comparatively strong. For primary education, the policy establishes class duration (40 minutes) and weekly study hours (27-30 hours) for each grade. In Grades 1 - 6, the national curriculum subjects (Khmer, mathematics, science, social studies, health and physical education) are generally allocated 25 hours per week, with local life skills an additional two to five hours per week. At the lower secondary level, the policy establishes class duration (50 minutes) and weekly study hours (38 hours).

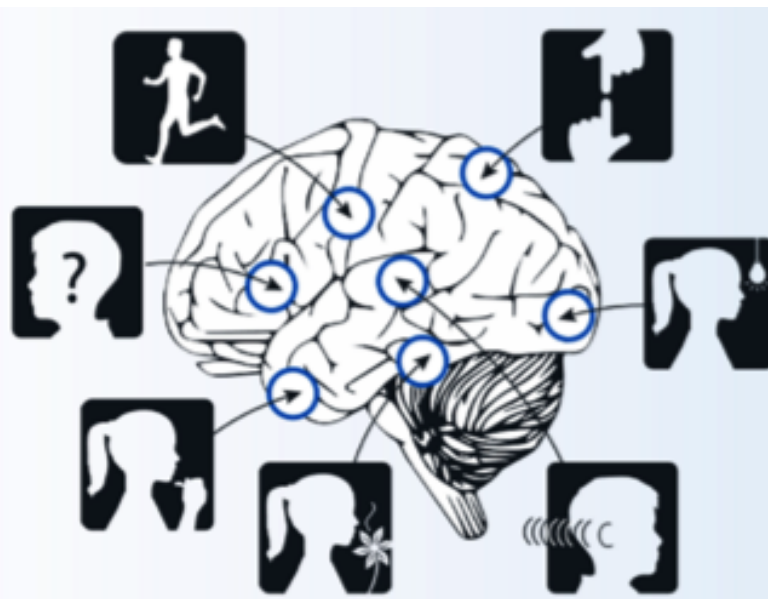
While the curriculum policy is robust, it is acknowledged that the policy is not fully implemented at the school level. Research has shown that actual teaching hours are lower than those officially allocated. One study found that school holidays, teacher absence and shortened teaching sessions reduced instructional hours by 27 per cent on average over the course of the

year, or 50.5 days (NEP, 2015)¹⁹. School hours in rural areas were found to be even lower, where children generally have less exposure to the curriculum due to a shortage of textbooks and learning materials, and commonly perform worse on national standardized tests (NEP, 2015). This echoes findings in Section 2 that show children in rural areas are most likely to be excluded from school. This is also partly due to the lower quality of learning.

One study found that some textbooks in Cambodia might perpetuate subtle gender stereotypes (UNESCO and KWDI, 2015) as the example from a Grade 9 science book (below) demonstrates. The illustration depicts the different functions of the brain, where supposedly male functions are linked to thinking, reasoning and exercise, while female functions are linked to the senses. This is concerning and communicates limiting beliefs about both girls and boys. Although this is at the lower secondary level – where girls have higher attendance than boys – the impact of limiting beliefs plays out at the higher education level and in the white collar workforce where women remain poorly represented.

¹⁹ The research tracked the attendance of 309 teachers in 91 schools across six provinces. The hidden curriculum refers to the informal, unwritten values, behaviours and perspectives that students learn in school that are transmitted through the pedagogy, school environment and school management practices.

Figure 3-3: Grade 9 science textbook



(Source: UNESCO and KWDI, 2015)

The research showed that female students often gave more correct answers – reflected in the results of assessments and exams at all levels of general education – but they lacked confidence in answering questions. Some female students waited until the end of the class to ask their teacher specific questions. This points to the absence of gender-responsive pedagogies and the potential inherent bias of teachers delivered through the ‘hidden curriculum’ which favours boys²⁰. It will be essential that the on-going teacher reform takes this reality into account to ensure that both the formal and hidden curriculum promote gender equality. It is important to note that MoEYS has recently developed a Gender Mainstreaming Strategic Plan in Education (2016-2020) with strategic outcomes in six key areas, including gender mainstreaming in the general curriculum and the teacher training curriculum²¹. This is an encouraging development. In Section 2, poor girls in rural areas were identified as being most at risk of exclusion from pre-primary education, therefore it will be important to ensure gender-responsive pedagogies at this early stage. The new curriculum framework was endorsed in early 2016 and aims to equip Cambodia with a

workforce that can promote the country’s graduation to upper-middle-income status by 2030 and high-income status by 2050. The framework also seeks to take into account scientific, technological and socio-economic evolutions at regional and global levels.

PEDAGOGY

In relation to teaching and learning methods, as part of large scale education reforms in 1996, Cambodia sought to adopt a ‘child-centred pedagogy’ whereby children were active participants in the learning process and teachers served as facilitators or catalysts to learning. This involved revamping pre-service and in-service teacher training with revised textbooks and manuals and a cascade model of teacher training in child-centred pedagogy down to the school level. The extent to which this pedagogy is implemented at the classroom level is debatable. A recent study into teacher education (Song, 2015) found that while teachers generally expressed overwhelming support for child-centred pedagogy, a conventional didactic approach to teaching dominated Cambodian schools. A confluence of factors – over-crowded

20 The six areas refer to: 1) Research, dissemination and gender awareness raising; 2) Lobbying and advocacy; 3) Capacity development and monitoring; 4) Gender mainstreaming in teaching and learning processes; 5) Promotion of gender responsive activities and programmes; and 6) Strengthening partnerships.

21 Khmer is known to be one of the most difficult languages to learn in the world. There are approximately 106 phonetic symbols. Consonants also have vowel sounds that change depending on the composition of the word. The lack of space between words is a further challenge for children’s learning.

classrooms, scarcity of resources, differing student abilities and an overloaded curriculum –tended to outweigh support for child-centred pedagogy and prevent full implementation of this policy measure.

The absence of interactive and engaging teaching and learning methods in classrooms in Cambodia is likely to have an impact on students' attendance and their interest in pursuing education. While there is no research on the impact of pedagogy on children's access to and retention in school in Cambodia, a longitudinal study showed that the lack of 'fun and enjoyable' student-to-student interaction in school may be a factor contributing to children dropping out (No, 2012). The global literature shows a positive relationship between interactive pedagogy and children's learning outcomes (Hattie, 2009) and it is safe to assume that if children and their parents feel they are not learning, they are more likely to drop out of school, particularly in light of the high opportunity cost of education. As a result, a strong focus on pedagogy is called for within the context of the teacher education reform. International literature shows the need for an appropriate blend of teacher-directed and student-centred learning drawing on local cultural norms and international good practice; the Early Grade Reading Assistance (EGRA), discussed here, is one good example of this.

LEARNING ASSESSMENTS

Within the context of strengthening children's foundational skills in literacy and numeracy through an adapted pedagogy, Cambodia introduced EGRA in 2010 with support from the Global Partnership for Education (GPE). While EGRA is typically known as Early Grade Reading Assessment, in Cambodia it was conceived as being a tool for support to, rather than measurement of, children's learning, thus known as Early Grade Reading 'Assistance' as opposed to 'Assessment'. EGRA started as a pilot with target and control schools.

EGRA sought to address the very low levels of word recognition and basic numeracy in young children through the re-introduction of traditional teaching methods known as Chet Chhem whereby vowel and consonant combinations are taught, moving from a complex whole-language oriented approach to a more phonics-based approach (Research



Triangle Institute (RTI) International, 2015)²². MoEYS revised the curriculum and textbooks for the first three years of primary school although there were challenges during the implementation in relation to ensuring the quality of the roll out.

Data comparing EGRA results in 2010 and following the intervention in 2012 showed a positive impact on children's learning in target schools. As a result, the ministry sought to nationalize EGRA and trained teachers nationwide on the methodology and textbooks. However, with the scale up, impact on teaching practice was found to be weak and as a result, the ministry focused on strengthening implementation in 350 schools in six provinces with technical support from central, provincial and district levels.

Cambodia's implementation of Early Grade Math Assessment (EGMA) is still in an early, pilot phase. A baseline survey was administered in Grades 1, 2, 3 and 6 in eight provinces in 2015. The survey showed that only 8 per cent of Grade 1 students

22 The national assessments were formerly supported by the World Bank/Cambodia Education Sector Support Project. From 2012/13 they have been funded by the programme budget.



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achieved the expectations in math for their level, reducing to only 2 per cent among Grade 3 students (MoEYS, 2015a). Of Grade 3 students, 48 per cent achieved the Grade 1 level expectations, showing that students catch up following a slow start. Results among Grade 6 students showed that procedural understanding – relating to numbers, arithmetic, measurement and word problems – is strong, while conceptual understanding – linked to fractions and decimals, percentages, geometry and statistics – is weak. This shows the need to focus to a greater extent on strengthening children’s conceptual learning through exercises, learning games and problem solving, and to reduce the amount of time on recitation and repetition. The low results on math may reflect the low level of confidence and subject knowledge among teachers in this area. It is expected that this will be addressed in the EGMA pilot and mainstreamed within the teacher training reform (currently planned under GPE III). As Cambodia moves towards a knowledge economy, ensuring children have strong

foundational skills in math will be crucial. The end-line results of the EGMA pilot will be collected in 2017 after which a decision will be made regarding whether to nationalize the programme.

Children’s performance in the various assessments will now be discussed as an indication of the effectiveness of the implementation of the curriculum. Data on learning achievements are also critical when discussing out-of-school children and children at risk of dropping out due to the need to analyse both the pull and push factors affecting children’s participation in education, as discussed in Section 1.2 ‘Study Methodology’. Learning assessment data provide important insights into the quality of teaching and learning, although the data do not necessarily shed light on the specific issues within the education ‘value chain’ that constrain or promote children’s learning.

MoEYS has conducted standardized national assessments in Khmer and math in Grades 3, 6 and 8/9 since the 1990s on a randomly selected sample of schools²³, representing around 3 per cent of schools. The administration of these assessments is a Core Breakthrough Indicator in the ESP. Some of the data will be analysed here in chronological order. It is important to note that the results of the assessments do not represent percentages, but equated scores across test applications based on item response theory. Comparing data across different years is not favourable, as the curriculum may have changed over that period and the level of difficulty of the test questions may also vary.

The Grade 6 assessment conducted in 2013 sample approximately 6,000 students. It showed that the average student was able to answer fewer than half the questions correctly across the test areas in reading and writing (45.7 per cent) although with substantial variation in the scores, for example 62.2 per cent correct for reading and 28.9 per cent for writing (MoEYS, 2015b). It is acknowledged that writing requires higher skills than reading. There were substantial disparities between rural and urban areas, with students in rural areas correctly answering 43.8 per cent of questions, rising to 55.3 per cent in urban areas; the difference

23 The survey sample size across these provinces was 917, and included students, principals, health centre directors and others.



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comes to more than one half of one standard deviation, which is significant. Girls performed better than boys: 48.1 per cent compared to 42.9 per cent respectively. The largest disparity can be seen in the socio-economic status (SES), with high SES students scoring 54.9 per cent on the test compared to 40.4 per cent for low SES students. The assessment also showed a positive correlation between children who were absent for three days or more and low scores (MoEYS, 2015b). This points to the need to strengthen children's continuous participation in schooling and tackle the demand-side barriers to their inclusion.

The assessment also tested math: students answered 43.4 per cent of questions correctly (44.5 per cent girls and 42.4 per cent boys) with the highest scores in statistics and the lowest in geometry. Again, disparities in SES were noted, with high SES students scoring 52.2 per cent and low SES scoring 39.1 per cent.

The standardized assessment for Grade 8 was conducted in 2014 in 210 schools. The average

Grade 8 student achieved 55.6 per cent correct answers on Khmer with a large variation between reading at 73.8 per cent and writing at 28.3 per cent. This may point to a bias in the curriculum and/or teaching time towards reading rather than writing. It corresponds with earlier discussions regarding teachers' predisposition to use teacher-centred pedagogies that may be used to a greater extent for teaching reading. The expected disparity in favour of girls persists, with girls achieving 58.2 per cent correct answers and boys 52.5 per cent, and likewise in favour of urban areas: 60.6 per cent in urban areas and 54.2 per cent in rural areas (MoEYS, 2016b). The overall correct answers for math amounted to 44 per cent (lower than Khmer), with 42.6 per cent in rural areas and 49 per cent in urban areas, and 43.7 per cent among boys and 44.2 per cent for girls. The average Grade 8 student answered 52.8 per cent of the questions correctly for physics with 52.2 per cent in rural areas and 54.8 per cent in urban areas, and 51.9 per cent for boys and 53.3 per cent for girls.

The national standardized assessment for Grade 3 covering a sample of 230 schools in 2015 showed that students answered 35.2 per cent of the questions correctly (for reading and writing), with 31.5 per cent in rural areas and 50.2 per cent in urban areas, and 32.3 per cent for boys and 37.8 per cent for girls (MoEYS, 2016a). This shows the need for more intensive support in rolling out EGRA across the country, particularly in rural areas. The overall correct answers in math were 41 per cent, with 38.4 per cent in rural areas and 51.5 per cent in urban areas, and 42.3 per cent for boys and 43.4 per cent for girls (MoEYS, 2016a). In Grade 6 in 2013, there was a higher percentage of correct answers in Khmer than math, but the reverse was true in Grade 3 in 2015.

As mentioned, a simplistic comparison of assessment data over time is not feasible due to the fact that the tests are not the same; they were developed by different writers and potentially based on different curricula. The samples are different for different schools and in some cases employing different sampling frameworks. Nevertheless, it

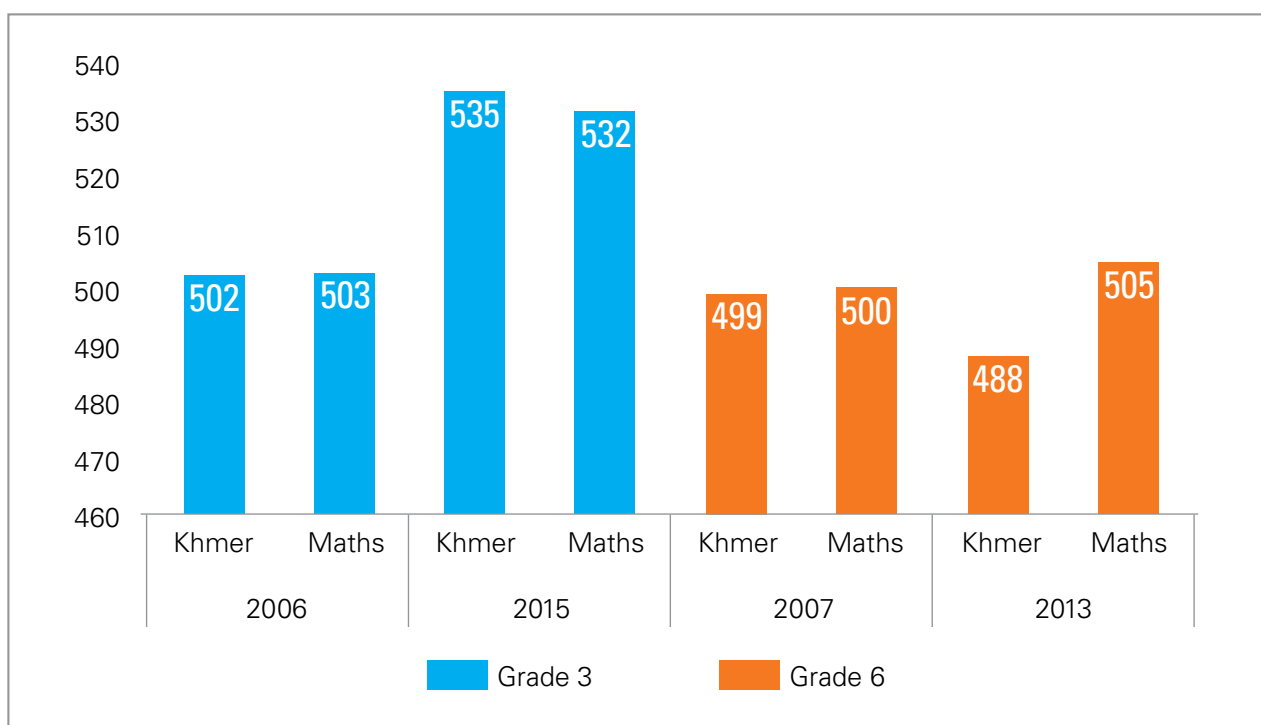
is possible to compare equated test scores using common test questions known as anchor items. This data is presented in Figure xx, below.

Between 2006 and 2015, the average Grade 3 student’s Khmer and math achievement increased by around 30 points, which translates to about 0.30 standard deviations. This represents strong progress in the education system over the nine-year period and the ministry is to be commended for such a clear improvement. Improvements at Grade 6 are less visible, and scores on Khmer have decreased. This may be due to the slow pace of educational change and the multifarious factors affecting children’s learning, including the

accumulated impact of low quality on Grade 6 student outcomes.

A deeper analysis of the Grade 6 data shows that most of the decline in the scores between 2007 and 2013 was concentrated in small rural schools, while the improvements were in small urban schools. This shows the need to ensure tailored, focused support is provided through government systems to small rural schools to lift them towards national standards and avoid a widening achievement gap. Strengthening the ministry’s assessment systems and overall assessment framework is a priority to ensure data from the various tests, assessments and exams feed upwards into policy as well as downwards to improve teaching practice.

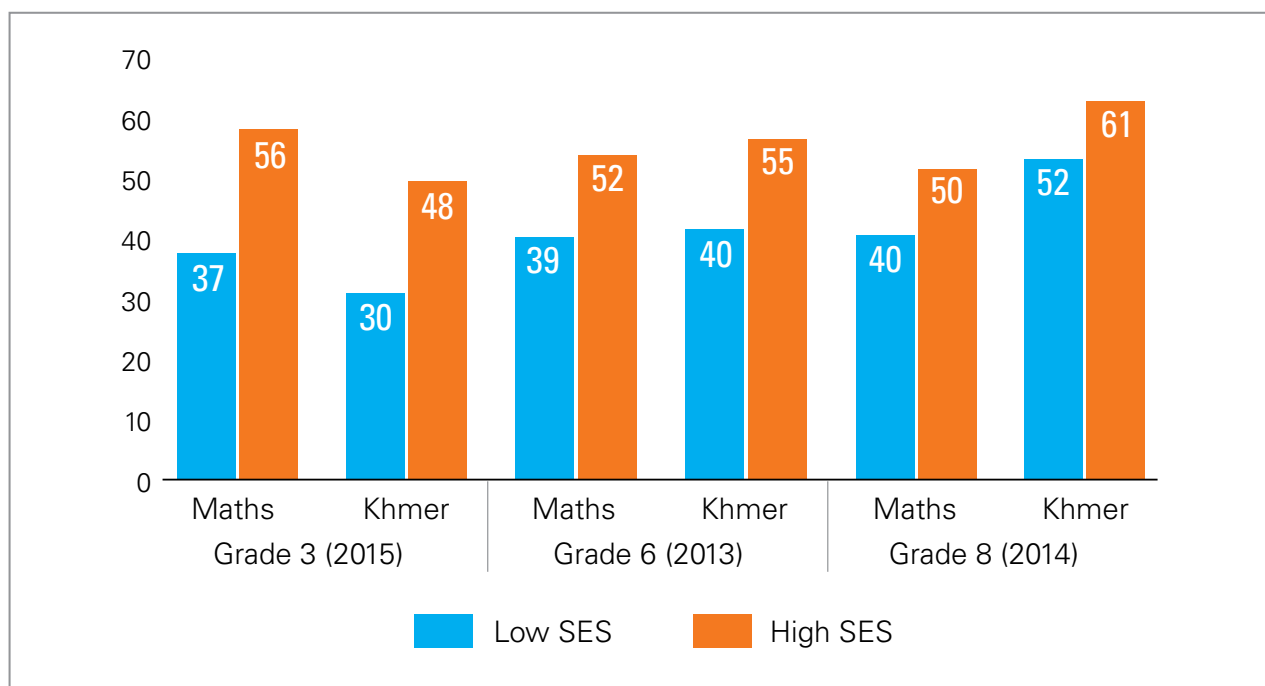
Figure 3-4: Comparison of learning assessments in Grade 3 and Grade 6 based on equated scores, 2006-2015



An equity analysis of children’s learning outcomes by SES shows that the largest disparities in learning outcomes are in Grade 3, and particularly in math, with 19.3 percentage points difference between low and high SES. Interestingly, the disparities reduce as children continue through the education system pointing to the potential conclusion that additional education has an equalizing effect; there

were only 9.3 percentage points difference in Grade 8 in Khmer. It is important to note that low SES represents children from the lowest SES quintile and high SES from the highest SES quintile. The quintile data is based on students’ answers in the questionnaires regarding home, possessions and services.

Figure 3-5: Standardized assessment data by grade and subject for low and high SES children



The Programme for the Analysis of Education Systems (PASEC), which is implemented in a number of Francophone countries across the world and in Cambodia, looked at children’s progression in math and Khmer in a small sample of schools, comparing learning achievements in Grades 2 and 3, and between Grades 5 and 6. The analysis showed that repetition is negatively associated with good learning outcomes, echoing findings from national assessments that emphasize the importance of automatic promotion and the provision of tailored remedial classes during school holidays for students who are learning at a different pace. Parental involvement in children’s homework appears to have a positive impact on their learning,

particularly in the early years of primary school, and especially in math. PASEC also identified links between children’s literacy and numeracy where their mastery of Khmer helped in math achievement and vice versa (Conférence des ministres de l’Éducation des États et gouvernements de la Francophonie (CONFEMEN) and MoEYS, 2015) although the data from the standardized assessments may not fully reflect this finding.

Results from a baseline survey by MoEYS and JICA in 2013 of 2,450 students in Grades 8 and 9 in eight provinces showed worryingly low results, despite the fact that the assessment was based on topics learned the previous year.

Table 3-14: Results of baseline survey in math and science in Grades 8 and 9 in eight provinces, 2013

	Grade 8 Scores			Grade 9 Scores		
	Min	Max	Average	Min	Max	Average
Mathematics	0	75	19.8	5	70	34.8
Physics	0	75	36.3	0	65	28.1
Chemistry	0	70	28.8	10	70	34.3
Biology	10	80	41.5	10	95	52.4
Earth Science	5	100	44.1	10	80	43.1

Source: JICA, 2015

This data echo what other learning assessment data show, namely grave challenges in the quality of education in Cambodia. Biology and earth science are the only subjects where students' average scores are around 50 per cent, while math, chemistry and physics are alarmingly low. JICA's 2015 analysis shows that the pedagogies employed by teachers do not promote the development of skills-based and conceptual learning among children. The survey also showed that teachers depend too much on textbooks and may lack confidence in their ability to translate the textbook

into an engaging lesson. This underlines the need for practical teaching guides that support teachers to use a variety of activities, experiments and stories to bring math and science lessons to life and reduce their dependence on textbooks.

The survey revealed an absence of communication between school directors and teachers, resulting in different perceptions regarding science and math teaching. This is compounded by the lack of good middle management in large schools (JICA, 2015).

3.2.3. SCHOOL ENVIRONMENT: INFRASTRUCTURE AND WATER, SANITATION AND HYGIENE

This section will discuss the quality and inclusiveness of the school environment with a focus on the physical infrastructure as a key determinant in children's participation in education.

SCHOOL COVERAGE

School infrastructure has expanded significantly in Cambodia over the past decade. The total number of public schools increased from 8,201 in 2003/04 to 11,778 in 2012/13 (or nearly 44 per cent). The number of pre-schools, lower and upper secondary schools more than doubled during the decade. This expansion has made schooling substantially more accessible for many rural children.

Table 3-15: Cambodia's public school infrastructure, 2003/04 and 2013/13

	SY 2003-04	SY 2012-13	% Change
State Pre-School	1,238	2,813	127.2%
Primary School	6,063	6,910	14.0%
Lower Secondary Level (Grade 7-9)	688	1,622	135.8%
Upper Secondary Level (Grade 10-12)	212	433	104.2%
TOTAL	8,201	11,778	43.6%

Source: MoEYS/EMIS 2003/4, 2013/14

According to the CSES, in 2007, 9.2 per cent of out-of-school children cited "no available school/school too far" as the main reason for not attending school, significantly higher among girls than boys. This access constraint has declined steadily in recent years and in 2012 only 2.4 per cent of out-of-school children gave that response. It is important to acknowledge the Government's investment in school buildings as a strategy to create universal access. Given that this is no longer a major cause of non-attendance, the focus is now on ensuring the child-friendliness of the existing infrastructure.

Table 3-16: Non-school attendance due to distance to school, out-of-school children (6 - 17 years)

	2007	2008	2009	2010	2011	2012
Girls	10.0	7.8	6.0	6.2	3.8	2.9
Boys	8.2	7.3	6.8	8.3	2.2	2.0
All Children	9.2	7.6	6.4	7.3	3.0	2.4

Source: CSES, 2007-2012



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Notwithstanding these achievements, the primary education system continues to be constrained by the large number of incomplete primary schools. Incomplete primary schools are schools that do not offer all six grades of primary education. They are mainly in remote areas with sparse populations. Frequently, students in incomplete schools will drop out after completing the highest grade offered, rather than transferring to a 'full' primary school, which is usually much further away from home. Addressing this issue is one of the ministry's priorities. Over the past decade, the ministry has reduced the number of incomplete schools from 2,179 in 2003/04 to 816 in 2013/14. However, this still represents nearly 12 per cent of all primary schools.

According to the NEP community survey (2014), distance to school and lack of transport were more likely to be cited as inhibiting factors to lower secondary schools rather than primary schools; in some cases, lower secondary schools were more than 20km away. From 2003/4 to 2009/10, the number of lower secondary schools grew rapidly, from 688 to 1,535, and enrolment peaked in 2007/08 with nearly 640,000 pupils. Since 2009/10, the number of lower secondary schools has increased by 124 and lower secondary enrolment has stagnated over the past five years. This is linked to complex demand- as well as supply-side factors.

Having a lower secondary school close to home encourages children to complete primary school. This 'dynamic supply effect' is the result of supplying higher levels of education to generate demand for lower levels of schooling. This is because of the 'option value' provided by primary education, where the total returns for post-primary education (accounting for direct costs and foregone earnings) are weighed against the probability

of finishing each level of education. There are current debates regarding the value of establishing basic education school compounds, where lower secondary schools are attached to primary schools (rather than upper secondary schools) in order to promote transition. The comparative lack of lower secondary infrastructure may partially account for the high proportion of 12- to 14 - year - olds still in primary school (54.4 per cent) discussed under Dimension 3.

It is encouraging to note that since 2015, MoEYS has had a dedicated (although small) budget for

capital investment and rehabilitation, amounting to \$10 million in 2016. It is prioritizing investment in remote and border areas as well as WASH facilities.

WASH IN SCHOOLS

Despite the rapid increase in the supply of school infrastructure, the availability and quality of WASH facilities have not kept pace. From 2007/08 to 2013/14, the number of schools without water supply increased by nearly 10 percentage points, to 49 per cent, and schools without latrines increased by five percentage points, to 34 per cent.

Table 3-17: School WASH

	% of Schools without	
	Water Supply	Latrine
2007/08	39.4%	28.3%
2009/10	37.8%	25.8%
2011/12	47.0%	31.5%
2013/14	49.1%	33.5%

Source: MoEYS/EMIS 2007/8 to 2013/14

While EMIS provides information on water supply and latrines, it does not publish information on the availability of soap or hand-washing facilities, nor whether toilets are functional or gender-segregated. A Cambodia Child Tracker Survey found that less than threequarters of schools (72 per cent) across 12 provinces had segregated toilet facilities for girls and boys and only 18 per cent had proper hand-washing facilities (CNCC, 2012)²⁴.

A 2014 qualitative NGO baseline survey conducted in six primary schools in Phnom Penh showed that 50 per cent of schools had soap, while 34 per cent of children and adults interviewed washed their hands at school. Some 40 per cent of respondents felt there were not enough toilets (Environmental Sanitation Cambodia-Bremen Overseas Research and Development Association, (ESC-BORDA) 2016). The limited allocation of recurrent funds

for the operation and maintenance of WASH in schools is an important constraint linked to deep-rooted attitudes and behaviours regarding sanitation and hygiene. An analysis of the expenditure of the school operating budget in Kampong Thom showed that primary schools spend only 1 per cent on water (chapter 60062) and 11 per cent on hygiene and cleaning (chapter 60011) (Ung, Oung, Tep, 2016). Based on an average budget of approximately \$700 per school per year, this translates as \$7 and \$70 respectively.

The absence of WASH facilities is a particular challenge for adolescent girls. A case study on menstrual hygiene management showed that the majority of girls had started their period in Grade 6, and 75 per cent had started by Grade 8. The research found that most of the girls felt the latrines were not sufficiently clean, private or segregated to enable the disposal of sanitary pads.

24 The definition of being economically active includes the production of goods for own final use in a household but excludes the production of services for own final consumption within the same household; hence children performing only unpaid household services (commonly called 'household chores') are not considered economically active

Many girls chose not to use school latrines while menstruating and 16.7 per cent did not attend school when experiencing menstrual cramps. Adequate menstrual hygiene facilities are very limited in Cambodian schools (UNICEF, 2015).

The negative trends related to WASH facilities in schools are concerning and reflect challenges linked to broad social norms. Poor sanitation and hygiene can lead to diarrhoea, which can affect children's nutritional status. It is known that hygiene-related diseases such as diarrhoea and respiratory infections lead to frequent absenteeism, lack of sleep and lower academic performance (GIZ, 2014), and can increase children's likelihood of dropping out. Hand-washing with soap at critical times is the most cost-effective way to prevent diarrhoea and can also reduce cases of pneumonia. International research shows that an integrated approach to health, WASH and education can lead to some of the strongest impact on children's attendance (Murnane and Ganimian, 2014). To help address these issues, the ministry has developed and endorsed a Guideline on the Minimum Requirements for WASH in schools.

3.2.4. SAFETY AND PROTECTION

The 2007 Education Law emphasizes children's right to respect, dignity and freedom from any form of torture or physical and psychological punishment. Article 35 prohibits the use of corporal punishment in both public and private schools. The 2007 Child Friendly Schools policy also places specific emphasis on ensuring the health, safety and protection of children, with a central aim to "ensure that all children in education are cared for and supported by all concerned people and institutions to keep them healthy and safe and [sic] protected from violence at school, in the family and in the community". To support this, a Child Friendly Schools manual on preventing violence against children was developed in 2008 to increase awareness among schools and stakeholders about violence, its causes and ways to prevent violence in

schools. Despite this, Cambodia's child protection services remain weak and under-funded and, within schools, there are limited formal channels for children who experience abuse, violence, exploitation and neglect, despite the prevalence of violence in segments of Cambodian society (UNICEF, 2014).

A national study on the prevalence of violence found that more than half of both females and males aged 18 to 24 years (52.7 per cent and 54.2 per cent, respectively) reported at least one experience of physical violence prior to age 18. Alarming, females and males who experienced violence by someone living in the community most frequently cited male teachers as the perpetrators of the first incident, followed by female teachers (UNICEF, 2014).

A baseline study on corporal punishment in primary schools in Kampong Cham and Siem Reap (Leang, 2012) found that as many as 85 per cent of boys and 80 per cent of girls in Grades 1, 2 and 3 experienced some form of corporal punishment from a teacher, while approximately 50 per cent of children in Grades 4, 5 and 6 reported experiencing corporal punishment. This suggests that all children, and particularly younger children, are vulnerable to the damaging impacts of physical violence in school. According to the children surveyed, corporal punishment is most commonly perpetrated using sticks (34 per cent), hands (28 per cent) and rulers (17 per cent). Alarming, 82 per cent of children in the survey reported experiencing emotional violence from a teacher either through insult, humiliation or mockery to invoke shame. While few teachers surveyed were aware of education laws and child rights relating to corporal punishment, 98 per cent expressed willingness – with the due support – to use non-violent methods to prevent trauma and absenteeism. Beyond immediate fear and absenteeism, the impacts of violence on children are known to be detrimental to overall child health and development, particularly for younger children during the critical early stages of brain development (National Scientific Council on the Developing Child, 2010).



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The Partnership Programme for the Protection of Children (3PC), involving the Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSVY) and nine NGOs working at national and sub-national levels has worked to strengthen child protection systems. Within the formal education system, MoEYS is also working to develop a Child Protection Policy for Schools in Cambodia through an inter-agency approach involving line ministries, institutions, NGOs and the private sector. This, teamed with adequate training of teachers in the area of positive discipline and classroom management, will help support a more child-friendly environment in schools, especially for children already vulnerable to violence and at risk of dropping out of school.

An emerging area affecting children's participation in education is rapid motorization in Cambodia. This has important implications for the safety of children travelling to and from school. The number of motorized vehicles in Cambodia tripled between 2006 and 2014 alone. During this time, fatal road accidents have risen by 52 per cent (International Traffic Safety Data and Analysis Group (IRTAD), 2014). In 2014, children under the age of 15 accounted for 8 per cent of total road fatalities, according to the Cambodian National

Road Safety Committee (2014). Children under 14 years are considered the most at-risk group of pedestrians on the road (IRTAD, 2014). Fatal road accidents involving children mainly occur in the afternoon (52 per cent) and in the morning (33 per cent) when children are most likely to be going to and coming home from school (Alliance for Safe Children, 2007).

Cambodian students interviewed in the 'Right to Education in Cambodia – Community Level Research' by NEP (2014) identified distance to school and lack of transport as reasons for not attending school regularly. The interviewees stated that unsafe roads and concerns about potential road accidents were obstacles for attending school.

Improving road safety and awareness in schools is thus an important area of focus within the context of child protection. The Cambodian Red Cross provides training on school safety for students and teachers at primary and secondary schools in Phnom Penh. The Global Helmet Vaccine Initiative has provided helmets to children and MoEYS, while Handicap International Belgium has developed teaching and learning materials on road safety education for primary schools (Global Initiative, Road Safety Initiative, 2015; UN, 2016).



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3.3. DEMAND-SIDE ISSUES AFFECTING PARTICIPATION IN EDUCATION

This section will analyse the economic, health-related and socio-cultural factors affecting children’s demand for and participation in education.

3.3.1. POVERTY

The Government has made remarkable progress in reducing poverty over the past decade. According to World Bank estimates, the poverty rate has reduced from 53.2 per cent in 2004 to 18.6 per cent in 2012. In rural areas, the poverty rate has reduced from 59.0 per cent to 22.2 per cent over the same period.

The MoEYS response to the Government’s poverty reduction strategy has also yielded positive results. A 2008 UNICEF study comparing school participation using the 2000 and 2005 Cambodia Demographic and Health Surveys (CDHS) found that in the 6 to 14 - year - old age group, the overall enrolment rate increased from 70.1 per cent to 81.4 per cent during the five-year period, with the highest gain in the poorest quintile. The number of children aged 6 to 14 years who never attended school declined from 25.6 per cent to 14.0 per cent over the same period, with the greatest improvements in the poorest quintile.

Despite these achievements, the gap in education outcomes between the wealthiest and poorest households remains wide. For example, the literacy rate of young adults (aged 15 to 24 years) narrowed between the wealthiest and poorest quintiles, by more than 11 per cent, but the gap remains wide, at nearly 17 per cent in 2011 (World Bank, 2014).

Table 3-18: Literacy rate of youth (15 - 24 years) by poverty, 2004/2011

	2004	2011	2004-2011 change
Wealthiest	93.8	97.5	3.7
Poorest	65.5	80.6	15.2
GAP	28.3	16.9	

Source: World Bank estimates based on CSES

The gap in the primary out-of-school rate between the poor and the wealthy is also wide. Among the wealthiest children, the out-of-school rate is only 5.6 per cent compared to 20.1 per cent among the poorest children. The poorest quintile is the only group that has a NAR below the national average. Even children in the next wealthiest group (Quintile 2) have a higher NAR than the national average (see Table 3-19). At the lower secondary level, the disparity is even greater. Children in the poorest quintile had an out-of-school rate more than seven times that of the wealthiest quintile (compared to less than four times in primary) and more than double the next quintiles.

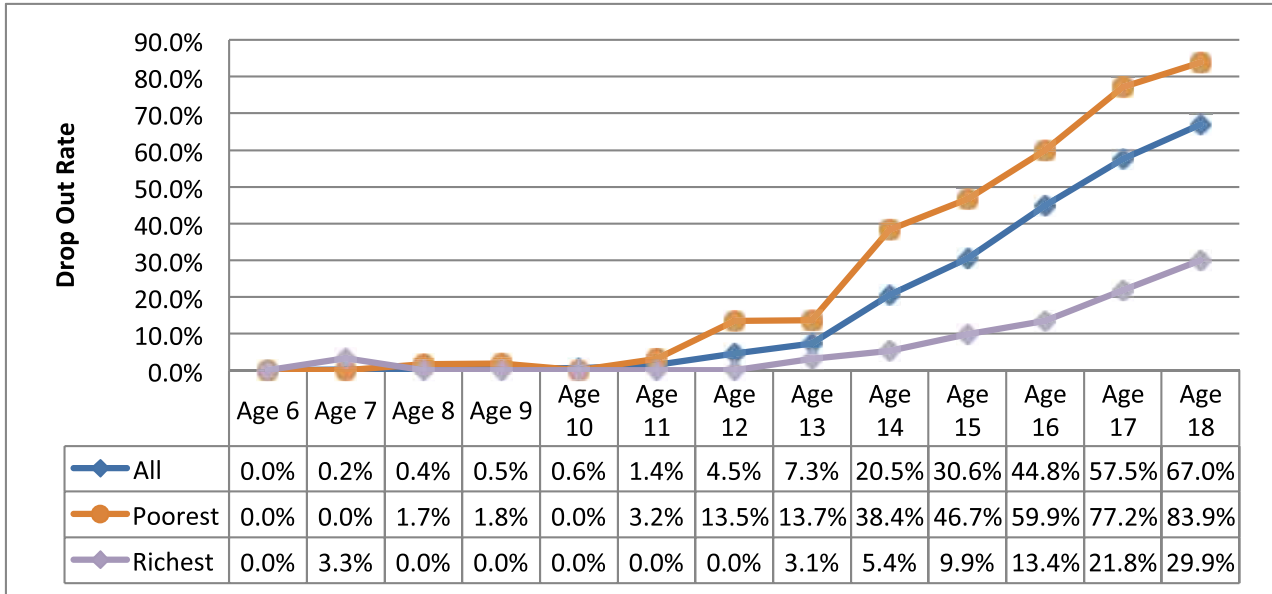
Table 3-19: Out-of-school rates by wealth quintile, 2012

	Poorest	Q2	Q3	Q4	Wealthiest	National
Primary Age 6-11	20.1	11.9	12.3	9.7	5.6	13.2
Lower Secondary Age 12-14	24.2	11.3	10.1	2.9	3.2	11.4

Source: Author’s calculation based on CSES 2012

The drop-out rate is also highest for poor households. In the poorest quintile, the drop-out rate starts to rise from age 12 and rises sharply to 38.4 per cent for 14 - year - olds. By age 16, more than half of the children in the poorest quintile have left school. In the wealthiest quintile, the drop-out rate starts to increase at age 17 (21.8 per cent), which is still significantly lower than the drop-out rate in the poorest quintile (see Table 3-20).

Table 3-20: Dropout Rates by Age of the Poorest and Richest Quintile, 2012



Source: Author’s calculation based on CSES 2012

The World Bank’s Cambodia Poverty Assessment 2013 found that economic considerations (the need to work or education costs) were major reasons for children never enrolling in school. Household chores were no longer the main reason for never attending school, dropping significantly from 35.4 per cent 2004 to only 13.5 per cent in 2011.



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3.3.2. ECONOMIC ACTIVITY AND CHILD LABOUR

Cambodia has ratified the International Labour Organization's (ILO) Worst Forms of Child Labour Convention, 1999 (No. 182) and the ILO Convention on Minimum Age for Admission to Employment, 1973 (No. 138). Children are considered economically active if they are aged 5 to 17 years and contribute to the production of goods and services by market enterprises, government and non-profit institutions (such as religious institutions and charities), family workers and own-account workers²⁵. According to Cambodian Labour Law, children between the ages of 5 and 11 years can work up to one hour per week; those aged 12 to 14 years can work up to 12 hours; and those between 15 and 17 years can work up to 48 hours per week provided their work is permissible and non-hazardous. At the

national level, much effort has been made to address the issue of child labour in Cambodia since the mid-1990s (ILO, 2015).

A recent study conducted by ILO, UNICEF and the World Bank (2015) found that children's involvement in labour in Cambodia has reduced dramatically, from more than 50 per cent in 2001 to 9 per cent in 2011. The vast majority of these children remain employed in the agricultural sector. Poverty, a large informal labour market and growing industrial and commercial sectors, particularly the garment industry, continue to generate high demand for labour in Cambodia. Out of nearly 4 million 5 to 11 - year - old children, 755,245 (19 per cent) are considered economically active, including 236,498 children (6 per cent) in hazardous labour such as mining and construction. With a strong focus on working children in the agricultural sector, the Ministry of Labour and Vocational Training has announced

25 According to a Ministry of Labour and Vocational Training Prakas, employers must comply with the following: The employer shall thoroughly and properly check three of the following documents: 1) Cambodian Identification Card, 2) Family Record Book or Family Book, 3) Birth Certificate or certified copy of Birth Certificate, 4) Diploma or Certificate. If a worker/employee is suspected of being below the legally required age, the employer is responsible for sending the documents to the Department of Child Labour and the Department of Occupational Health of the Ministry of Labour and Vocational Training where they will certify eligibility for employment, with fines for non-compliance.

regulations for hiring workers between the ages of 15 and 18 years by strengthening identification requirements²⁶.

The percentage of economically active children increases with age. An estimated 4 per cent of children aged 5 to 11 years are economically active, increasing to 20 per cent by 12 to 14 years and 47 per cent by 15 to 17 years (see Table 3-21). The 15 to 17 - year - old age range represents more than 63 per cent of total working children. There are more children working in rural areas than in urban areas. Rural children make up 87 per cent of all children engaged in economic activity. There are slightly more girls (51 per cent) than boys (49 per cent).

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Table 3-21: Economically active children aged 5 to 17 years by sex, age group and area

	Total Children	Economically Active Children		
		No.	% of Cohort	% of Working Children
Cambodia	3,956,751	755,245	19.1%	100%
Sex				
Male	2,025,257	372,208	18.4%	49.3%
Female	1,931,494	383,037	19.8%	50.7%
Age group				
5–11 years	1,946,551	77,764	4.0%	10.3%
12–14 years	987,828	198,819	20.1%	26.3%
15–17 years	1,022,372	478,662	46.8%	63.4%
Area				
Urban	803,027	100,801	12.6%	13.3%
Rural	3,153,724	654,444	20.8%	86.7%

Source: MoP/ILO CCLS 2012

26 In the remainder of this section, the terms 'economically active children', 'working children' and 'children engaged in employment' are used interchangeably.

27 The definition of being economically active includes the production of goods for own final use in a household but excludes the production of services for own final consumption within the same household; hence children performing only unpaid household services (commonly called 'household chores') are not considered economically active

The numbers of economically active children aged 5 to 17 years in each province are: Pailin (46 per cent), Kampong Chhnang (37 per cent), Ratanakiri (34 per cent) and Battambang and Pursat (both 31 per cent). Battambang and Kampong Chhnang provinces are known for high levels of farming (known as the rice bowl of Cambodia). In Ratanakiri, children may be involved in rubber plantations. Other provinces with a low percentage of children engaged in employment are Siem Reap (8 per cent), Preah Sihanouk (8 per cent) and Kampong Speu (9 per cent).

More than half the working children (50.4 per cent) aged 5 to 17 years are engaged in agriculture, forestry and fishing sectors; of those, 55 per cent are boys and 45 per cent are girls. Other working children reported employment in manufacturing (19 per cent), wholesale and retail trade and repair

(15 per cent), accommodation and food services (5 per cent) and construction (4 per cent). It is further estimated that some 57 per cent of working children are unpaid family workers, meaning that children are working in an economic enterprise (e.g., farm, street stall or restaurant) operated by a relative in the household.

The 2013 Cambodian Child Labour Survey found 50 per cent of working children aged 5 to 17 years were attending school, 44 per cent had dropped out of school and 6 per cent had never attended school. In urban areas, nearly 64 per cent of working children were still in school compared to 48 per cent in rural areas. Between the ages 5 and 14 years, the majority of working children managed to stay in school. However, for 15 to 17-year-olds, only 34 per cent were still in school and 61 per cent had dropped out of school (see Table 3-22).

Table 3-22: Economically active children by school attendance status, 2012

	Attending school		Dropped out		Never attended		Total
	No.	%	No.	%	No.	%	
Cambodia	378,629	50.1	331,047	43.8	45,569	6.0	755,245
Sex							
Male	185,841	49.9	156,789	42.1	29,578	7.9	372,208
Female	192,788	50.3	174,258	45.5	15,991	4.2	383,037
Location							
Urban	64,355	63.8	35,685	35.4	761	0.8	100,801
Rural	314,274	48.0	295,362	45.1	44,808	6.8	654,444
Age							
Age 5-11	67,563	86.9	2,269	2.9	7,931	10.2	77,763
Age 12-14	150,323	75.6	37,091	18.7	11,404	5.7	198,818
Age 15-17	160,742	33.6	291,686	60.9	26,234	5.5	478,662

Source: MoP/ILO, CCLS 2013

Of economically active children, 28 per cent worked more than 48 hours per week while 25 per cent worked 15 to 29 hours per week. The data showed that older children tend to work longer, with 38 per cent of children aged 15 to 17 years working more than 48 hours per week. More girls (110,663) than boys (101,567) worked more than 48 hours per week. This helps explain the high rates of exclusion from school among 15 to 17-year olds (see Table 2-22). While this age group is not specifically analysed in this study, it deserves attention. Rural children also worked longer than urban children, as 29 per cent of them work more than 48 hours per week (MoP and ILO, 2013).

It is evident that the number of working hours has an impact on the school attendance of working children. CEA and UNICEF conducted an independent analysis of student drop out

from lower secondary schools using CSES data. The study found that children under the age of 16 years work an average of 26 hours per week. If a child is working, the probability that he or she will drop out of school is about 19.9 per cent at the primary level and about 29.0 per cent at the lower secondary level. Working more than 22 hours per week increases the probability of dropping out.

As the Cambodian economy grows and the cost of living increases, a small amount of light work which does not interfere with studies can actually help children to stay in school and help offset the opportunity cost. Children who are poor and working are more vulnerable to being 'pulled out' of the formal education system, particularly at lower secondary level, and social protection tools need to be designed to take account of these pressures.

Child labour in selected provinces

In 2014 the Cambodia Institute of Development Study (CIDS) and ILO carried out a study into child labour in the sugarcane industry in Kampong Chhnang and Pursat. Almost 100 households were interviewed for the survey, including 218 children. Of these children, 43 per cent were working.

Survey findings showed that an average of 54 per cent of the children working in the sugarcane fields worked more than the legally permitted hours. For boys, the situation was most prevalent on contractual plantations, where 82 per cent of boys worked more hours than legally permissible. Girls working on family farms were more likely to work excessive hours (55 per cent).

Among the 94 working children in the sample, 67 per cent combined work with school, while 33 per cent were not in school. In the youngest age group (below 12 years), it was largely the children aged between 4 and 9 years who worked and did not attend school. The study suggested that child labour delays school enrolment, which increases the probability of drop out later (CIDS and ILO, 2015).

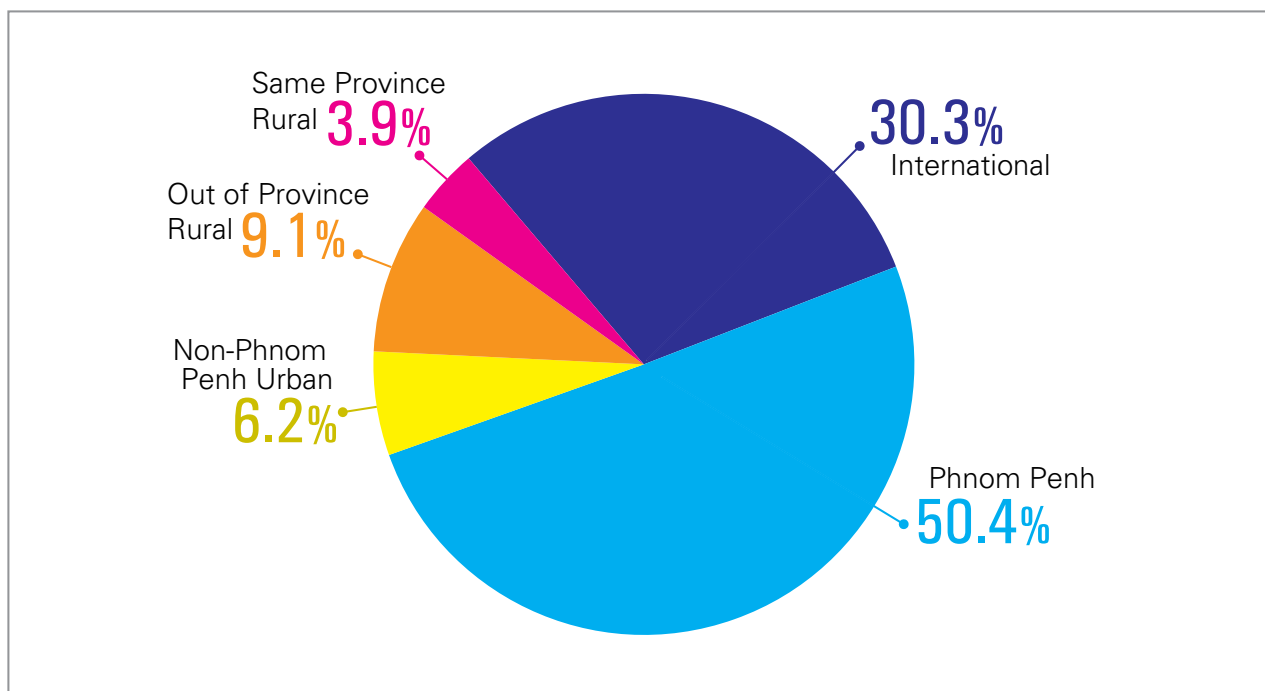
3.3.3. MIGRATION

Migration is a major issue facing the education system in Cambodia. It is widely acknowledged that short- and long-term migration represent major challenges to children’s continuous participation in education. Due to the absence of a national student identification and tracking system, it is difficult to trace children’s movements

and ensure a responsive education system facilitating children’s continuous learning.

The 2012 MoP national report on migration finds that the present migration pattern in Cambodia is mainly from rural to urban areas. On average, the out-migration rate from rural villages is 48.1 per 1,000 people, while the temporary out-migration rate is 19.9 percent 1,000 people (MoP, 2012).

Figure 3-6: Destination of rural migrants



Source: MoP 2012

Table 3-23 shows the main destinations of rural migrants. The largest share of migrants (50 per cent) move to Phnom Penh, while 30 per cent move out of Cambodia.

The 2012 Cambodia Child Labour Survey (CCLS) estimates that there are 129,106 internal migrant children in Cambodia, of which 51 per cent are girls, and 60 per cent are in rural areas. Of these migrant children, 48,545 (38 per cent) are considered economically active and 39 per cent are 15 to 17-years-old, 28 per cent are 12 to 14 - years - old and 33 per cent are 5 to 11- years - old. CCLS estimated that 25,647 migrant children have dropped out of school, with near gender parity. Nearly 60 per cent of migrant children indicated that the reason

they dropped out was because they could not afford schooling. The second most frequent response (13 per cent) was “no school/school too far”. Given that rural-to-urban migration accounts for 80 per cent of all internal migration, it is not surprising that the high cost of schooling and the lack of schooling space in urban areas ‘push out’ many migrant children from the education system. A forthcoming study on Children and Migration in Cambodia (UNICEF, 2016) reveals that not having proper birth certificates is a barrier to many children registering for and entering public schools. Children who migrate may be behind in the school calendar and thus must wait to enrol. This results in being overaged and increases the likelihood of drop out.

3.3.4. MOTHERS' EDUCATION

The 2008 UNICEF Study on Out-Of-School Children found that children in households headed by someone other than their relatives are generally less likely to attend school. Large household sizes and working mothers also negatively influenced students' success at school. A positive predictor of school enrolment is having a mother who completed lower secondary

or higher education. In urban areas, a father's education is statistically less significant than a mother's (UNICEF, 2008).

Adult literacy rates for women have improved steadily over the past 15 years. In 1980, at the end of the Khmer Rouge regime, the female literacy rate was extremely low, at only 23 per cent compared to 74 per cent for males. By 2013, this had increased to 74 per cent compared to 86 per cent for males (see Table 3-24).

Table 3-23: Adult literacy rate (age 14 and over), 1980-2013

Year	Both Sexes	Males	Females	GPI
1980	-	74.0	23.0	0.31
1998	67.3	79.5	57.0	0.72
2004	73.6	84.7	64.1	0.76
2008	77.6	85.1	70.9	0.83
2013	79.7	86.4	73.6	0.85

Source: MoP, 2013

Educational attainment of rural women aged 25 and over is particularly low, with only 27 per cent having completed primary education and 10 per cent having some secondary education (MoP, 2013). It is recognized that mothers' educational attainment has an influential role on children's participation in education. Studies in Cambodia have shown that mothers' education, alongside other factors such as teacher absence, repetition, parental migration and parental death affect children's drop out in primary school in rural areas (Bunchhay, Fata, Sopha and Hirakawa, 2014).

3.3.5. CHILDREN'S NUTRITIONAL STATUS

In the first years of life, the brain grows at a pace of 700 new neural connections per second, a pace never achieved again. Without adequate nutrition, babies' brain nerve cells have less fuel to grow. By the age of 3 years, a child's brain is twice as active as an adult's brain. Early life experiences are a key determinant of future brain capacity. As a result, nutrition and early stimulation affect children's learning capacity.

According to the 2014 CDHS, 32.4 per cent of children under 5 years are stunted, and 8.9 per cent are severely stunted, the implications of which are significant; child stunting is one of the most severe impediments to human development. In Cambodia, there is very little difference (1 per cent) in the level of stunting by gender. However, the disparity in stunting prevalence between rural and urban children is substantial: 33.8 per cent of rural children are stunted compared to 23.7 per cent of urban children.

Underweight, or too thin for age, is also common across the country; 23.9 per cent of Cambodian children under 5 years are underweight and 4.7 per cent are severely underweight. The prevalence of underweight is 10.6 percentage points higher among rural children (25.4 per cent) than urban children (14.8 per cent).

Wasting (too thin for height), which is a sign of acute malnutrition, is less common (9.6 per cent) but this percentage is still considered a severe public health issue in Cambodia. The extent to which wasting contributes to stunting is not yet well understood. Evidence does suggest,

however, that episodes of wasting negatively affect linear growth and therefore undermine child growth and development. It is urgent that a sustainable way to screen and treat acutely malnourished children be found. Wasting does not vary substantially by sex or area of residence.

According to the CSES 2012 (and as explored in Section 2) 65 per cent of children aged 6 to 11 years who are out of school are reportedly considered 'too young' for school. This perception of children being too young for school is likely to be associated with stunting/underweight caused by malnutrition. The CDHS (2014) found that both stunting and underweight seem to be negatively correlated with mothers' level of education and family wealth (however additional secondary analysis is needed to confirm this hypothesis). For example, the prevalence of stunting is higher among children living in the poorest households (41.9 per cent) than among children in the wealthiest households (18.5 per cent). The prevalence of children who suffer from stunting with mothers who have no education is around 39 per cent, compared to a little over 26 per cent for those with mothers who have at least six years of primary education. Due to a mother's limited education, inappropriate and/or inadequate feeding practices could lead to an increased likelihood of being stunted.

While some progress was made in reducing child malnutrition from 2000 to 2005, there was little change in malnutrition from 2005 to 2014. The educational consequence of stunting and underweight is that these children might enrol in school later (and therefore be at increased risk of dropping out) or potentially, never enrol at all. Ensuring a greater reduction in child malnutrition will have important implications for improving participation in education and in children's cognitive development.

3.3.6. DISABILITY

According to the interim census, there are 301,629 people with a disability (MoP, 2013) or 2 per cent of the country's population as of 2013. It is likely, however, that the number of people with disabilities in Cambodia has been significantly under-reported. According to the World Bank and WHO (2011), approximately 15 per cent of the world's population have a disability. By this measure, Cambodia potentially has 2 million people with a disability. There is a lack of data on children with disabilities in EMIS or other sector information systems, therefore information on the degree to which children are in school, accessing health services and/or social protection schemes is not easily accessible.



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While challenges around data collection remain, Cambodia is moving towards using the Washington Group Set of Questions, which focus on functioning and may help provide a more accurate indication of prevalence. The interim census will be used in this section while considering the potential for under-reporting.

There are 32,056 children aged 0 to 14 years with a disability, which represents 10.7 per cent of the total population of people with a disability in Cambodia (MoP, 2013). The majority of children

aged 0 to 14 years with a disability live in rural areas (87.5 per cent), which also reflects broader population patterns. In urban areas, the number of children with disabilities increases sharply, from 844 children aged 0 to 4 years, to 1,590 children aged 5 to 9 years. In terms of sex, there are more girls with disabilities than boys, at 51 per cent, and this is particularly high among girls aged 0 to 9 years. The number of boys with disabilities increases by more than 73 per cent from age 5 to 9 to age 10 to 14 (see Table 3-25 below).

Table 3-24: Children with disabilities by age group

		Total	Male	Female	Urban	Rural
Cambodia (Age 0-75+)		301,629	157,007	144,622	41,649	259,980
By Age Group						
0-4	7,018	2.3%	2,898	4,121	844	6,175
5-9	10,712	3.6%	4,685	6,026	1,590	9,121
10-14	14,326	4.7%	8,122	6,208	1,567	12,760
15-19	20,184	6.7%	11,720	8,464	3,511	16,673

Source: MoP, 2013

Problems with eyesight and movement are by far the most commonly reported disabilities. Males are more often reported to have a movement-related disability in the north-western provinces likely due to prolonged civil conflict and landmines in these areas. By contrast, in urban areas, visual impairment is the most frequently reported disability.

Table 3-25: People with a disability by type of disability (all ages), 2013

	Total	Males	Females	Urban	Rural
Total Number Of Disabled Persons	301,629	157,008	144,622	41,649	259,981
Type Of Disabilities					
Seeing	34.8%	31.4%	38.6%	41.7%	33.7%
Movement	33.4%	41.4%	24.7%	26.1%	34.6%
Hearing	9.0%	7.4%	10.8%	10.2%	8.9%
Mental Illness	7.0%	6.2%	7.9%	5.3%	7.3%
Speech	5.4%	4.4%	6.5%	4.7%	5.5%
Mental Retardation	5.2%	3.6%	6.8%	6.9%	4.9%
Other	3.5%	3.9%	3.1%	3.1%	3.6%
Multiple Disabilities	1.6%	1.7%	1.6%	2.1%	1.6%

Source: MoP, 2013

Due to the nature of the data available on children with disabilities, the analysis will focus on the 15 to 19 - age cohort. Table 3-27 shows that the highest proportion of this group have never attended school and/or not completed primary school, at 57.3 per cent, while 15.4 per cent have completed basic education (primary and lower

secondary education). In urban areas, nearly 40 per cent have completed lower secondary, of which 14.6 per cent have also completed upper secondary education. This, however, contrasts with children with disabilities aged 15 to 19 years in rural areas where only 13.3 per cent have completed lower secondary education.

Table 3-26: Education attainment of children with disabilities (aged 15 - 19), 2013

(% of age cohort)	Cambodia	Male	Female	Urban	Rural
Illiterate/Never Attended	30.5	25.8	37.1	23.6	31.9
Primary (Not Complete)	26.8	31.5	20.2	29.1	26.3
Primary	24.8	26.3	22.8	7.4	28.5
Lower Secondary	15.4	15.9	14.7	25.3	13.3
Upper Secondary	2.5	0.5	5.3	14.6	-

Source: MoP, 2013

In the CSES, respondents are asked to state the main reasons for non-school participation. Among urban children, 10 per cent gave disability as the reason for not attending school, compared to 2 per cent in rural areas. This data does not reflect the findings above, perhaps due to the subjective nature of children's perceptions compared with the actual situation. Overall, within the 12 to 14-age range, 12 per cent of children cited disability and 17 per cent cited long-term illness as reasons for never having attended school (CSES, 2009).

Other data indicates overall late enrolment to formal education by children with disabilities, meaning that children with disabilities are spread across a number of dimensions of exclusion and form a significant proportion of those left out of school.

More broadly, due to the limited data available on children with disabilities in Cambodia, their particular needs have not been sufficiently addressed in the projection of education costs in national and sub-national plans. It is essential to ensure that schools are supported to provide an inclusive teaching and learning environment for all children and that teachers are equipped to address the various learning needs and styles of children in their classrooms. Screening of all young children by health workers to detect developmental delays or disabilities in a timely way and provide appropriate support is also crucial. It is therefore important to strengthen coordination between the education and health sectors.



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Pich Set Vimol in her Grade 5 class at Krong Kampot Primary School

CHILDREN WITH DISABILITIES FLOURISHING AT SCHOOL²⁸

KAMPOT, Cambodia, 11 August 2015 – It's break time at Krong Kampot primary school and hundreds of children are playing in the schoolyard. But 11 - year - old Pich Set Vimol prefers to spend her breaks in the classroom. "Because of my disability I cannot run around like the other children. I have colouring pens and paper, so if I don't feel like going out, I enjoy drawing pictures instead," she explains with a smile.

'Smiling' is perhaps the best way to describe Vimol, who studies in Grade 5 and lives with her parents and three siblings in Muoy Ousaphea village, Kampot. It is partly Vimol's positive attitude that has helped her to overcome her difficulties and become the successful girl that she is today.

Vimol explains that some years ago she fell and badly injured her leg. "I fell and hit a rock that broke my leg. The injury did not heal very well and my leg broke twice more after that." Vimol was in such a bad state that she could not attend school for five months and today, although back in school, she cannot walk without assistance. Nevertheless, the help that Vimol receives in school ensures that her disability does not restrict her learning.



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Grade 5 teacher, Ms. Soy Dany, who has received UNICEF-supported training on inclusive education, outside her classroom at Krong Kampot Primary School

"In school, there is a wheelchair that I can use and the teacher always pays extra attention to me. I do not have to go to the blackboard to write. I can write in my notebook and the teacher comes to me," she says.

Vimol's teacher, Ms. Soy Dany, has received UNICEF-supported training on inclusive education. To ensure that Vimol did not fall behind during her absence, Ms. Soy sent Vimol's twin brother home with exercises and learning materials for her every day. "During my injury, I was worried that I wouldn't be allowed back to school and that I would fall behind, but that didn't happen. When I came back to school, my teacher gave me extra attention and always asked, 'Can you follow? Do you need help to walk?' Now I am keeping up with my classmates," Vimol explains.

In 2011, UNICEF supported the Ministry of Education, Youth and Sport to deliver training to all the teachers at Vimol's school. They learned how to identify and assist children with disabilities

and have had refresher training sessions.

"Before I was trained on inclusive education, I didn't know how to assist children with special needs, even though I was a trained teacher," Ms. Soy explained. "Now I know and I can provide the children with the right material and assist them in different ways to make learning easier."

This inclusive education training, which is integrated into the national teacher training curriculum, helps guarantee that all children like Vimol take part in and contribute to Cambodian society without any limitations.

This is also Vimol's dream. When she grows up, her plan is to work at a bank and improve the living conditions of her whole family. When asked if she believes she will achieve her goals, she laughs and says, "Yes! Because I am in school!"

Vimol's friends help her into the wheelchair to go home, but not before she turns around and looks back, once again with that big smile on her face.



3.3.7. ETHNICITY

While Cambodia is a comparatively homogenous country, with the Khmer ethnicity making up 95.7 per cent of the population, the remaining 4.3 per cent represent a number of ethnicities, the biggest proportion being Cham at 2.4 per cent, and indigenous minorities representing 1.3 per cent (CSES, 2009)²⁹. Indigenous minorities, also referred to as ethnic minorities, are mainly based in five north-eastern provinces. According to CSES, the remaining ethnic groups, such as Chinese, Vietnamese, Thais and Laos, make up 0.55 per cent of the population.

Given the importance of cultural relevance in education, as well as appropriate languages of instruction, this section will analyse the particular issues facing children from ethnic minorities.

The Cham, also known as Muslim Khmer, are most heavily concentrated in Kampong Cham but can also be found in 11 other provinces (Kampuchean Action for Primary Education (KAPE), 2007). CSES data identifies 17 minority groups. The largest ones are Kuy, Tampuan, Jarai, Bunong and Kreung, with more than 20,000 native language speakers. These minority groups are highland dwellers living in five provinces. Nearly 64 per cent of the ethnic minorities are in Ratanakiri, representing 74 per cent of the provincial population. Around 24 per cent of indigenous

populations are in Monduliri, representing 68 per cent of the provincial population.

According to CSES 2009 – which is based on a larger sample and can therefore be used for ethnicity-based analysis—the out-of-school rate (children not attending pre- or primary school) for indigenous children aged 5 years was 71.8 per cent. The rate was higher for Cham children, at 88.4 per cent³⁰. Cham children ‘catch up’ at primary level, with an out-of-school rate of 22.3 per cent, while indigenous minorities have an extremely high rate of 73.2 per cent even higher for boys, at 80.3 per cent. The out-of-school rate for 12 to 14 - year - olds was 12.3 per cent among Chams and 46.9 per cent among indigenous minorities. Interestingly, 49.6 per cent of this age group were attending primary school and only 3.5 per cent were attending lower secondary school, demonstrating delays in their promotion through the education system³¹.

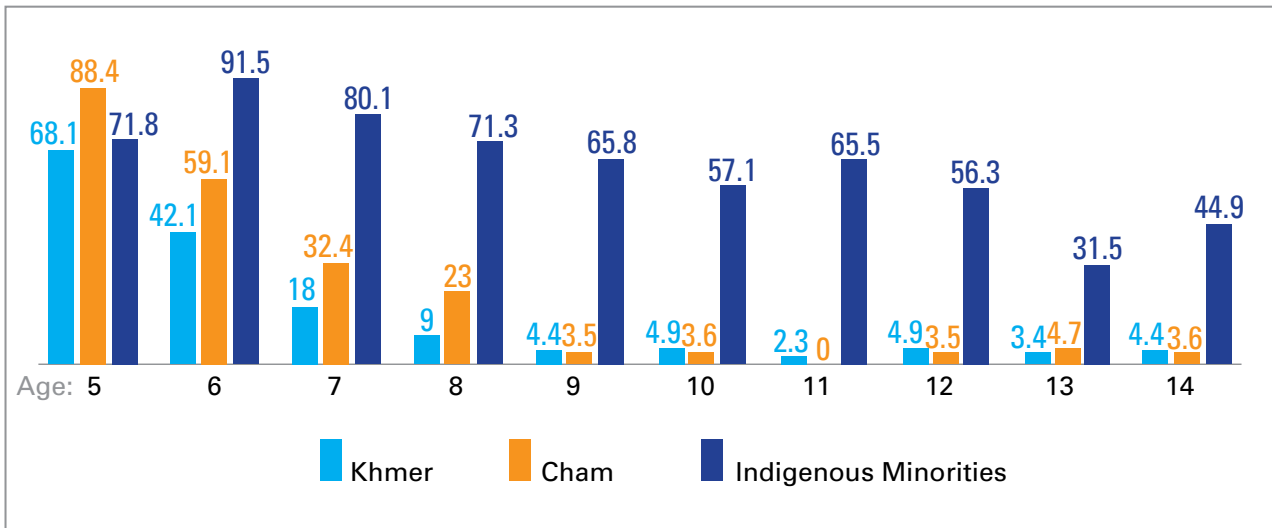
The graph below shows the proportion of children who have never attended school by age and ethnicity. Cham children appear to enrol late in school but catch up by age 9. The percentage of indigenous children who have never attended school is extremely high, especially in the early primary years between age 6 and age 8 (91.5 per cent to 71.3 per cent), spiking again at 11 years.

29 As the non-Khmer ethnic population represents less than 5 per cent of the total population, the analysis on ethnic minorities will use CSES 2009 data, due to its larger sampling size, rather than CSES 2012.

30 It should be noted that many children from the Cham minority might be attending Islamic religious schools; there were 86 Islamic schools operating in Kampong Cham enrolling more than 20,000 children in 2007. More information is needed on the content and quality of education provided in Islamic schools which focus predominantly on religious teachings and which generally operate on community donations (Bredenberg, 2008). It is unclear how many children accessing Islamic schools also attend government schools. In 2016, the Government added 1,400 Madrasa school teachers to the Government payroll.

31 It is important to note this analysis refers to CSES 2009 while the national rate analysed in Section 2 refers to CSES 2012, so the data is not fully comparable.

Figure 3-7: Proportion of Children who have never attended school by Age and Ethnicity



Author's calculation based on CSES 2009

Most indigenous minorities live in rural and remote highland areas. They are sparsely populated and have lower coverage of schools due to the low populations. This results in greater distances to schools. The Cham population is spread more widely across the country, including more than 10 per cent living in urban areas, hence benefiting from better access to the formal school system.

An additional challenge for the indigenous population is the prevalence of incomplete schools in their communities, especially in Ratanakiri. According to EMIS 2013/2014, nearly 47 per cent of primary schools in Ratanakiri were incomplete, compared to 12 per cent of primary schools nationwide. This makes it even more challenging for children from indigenous minorities to complete primary education.

As highlighted in the provincial analysis (see Annex 3), Ratanakiri has the highest numbers of out-of-school children in the country. This is likely to be associated with the absence of province-wide multilingual education (discussed below), high numbers of incomplete schools, and the challenge of ensuring schools in rural and remote areas are staffed with well qualified teachers (see Section 3.2). Children from ethnic minority groups thus make up a significant proportion of children in all five dimensions of exclusion.

The language of instruction has a large impact on learning for children from indigenous minorities. In Cambodia, Khmer is the main language of instruction. It has been shown that using one language at school and another at home can cause educational failure for many children internationally. When children cannot understand the language the teacher uses, they often learn to copy and memorize words and numbers but do not understand them and cannot apply them in other contexts. The research shows that children generally learn best in the language they use at home. Children's understanding grows by linking new ideas into concepts that are familiar to them (Pinnock, 2009). If the teaching process, concepts and language are very different from their practical context and there are no links to their daily lives, learning becomes more difficult.

To address this issue, MoEYS introduced multilingual education in 2002 with the support of a number of partners including UNICEF, CARE and others. In 2010, the Government approved the Guidelines on the Implementation of Bilingual Education for Indigenous Children in Highland Provinces, and in 2013 it developed legislation on the use of indigenous languages in schools: 'Prakas Number 48, 2013, Identification of Language for Learners of Khmer Nationality and Ethnic Minority Origin'. The following languages were approved

for use as mediums of instruction in pre- and primary school: Tampuan, Kampong Speu, Kampong Chhnang, Kampong Speu and Kampong Chhnang. The multilingual education model enables an incremental introduction of Khmer during the first three grades of primary, starting with 80 per cent use of the minority language as the language of instruction in Grade 1 and moving towards 100 per cent use of Khmer as the language of instruction by Grade 4³². The MoEYS policy (2013) specifies that any school with a minimum of 30 per cent of its students from an ethnic minority background is eligible for the multilingual programme.

The multilingual education programme reaches more than 4,000 children across four provinces. While coverage remains low, in 2016 MoEYS approved a Multilingual Education National Action Plan (MENAP) enabling full institutionalization of the approach and its incremental expansion.

MENAP's vision is to ensure that all ethnic minority children have the right to access basic education, including the use of their mother tongue in the initial stages of education, building a strong foundation for learning and achievement. The plan is the first of its kind in the region and includes projections on enrolment data, teachers needed, and plans for provincial-level expansion of multilingual education in pre-school and primary school. The plan commits to increasing the number of multilingual pre-schools from 34 in 2014/2015 to 65 by 2018/2019 and the number of multilingual primary schools from 54 in 2014/2015 to 108 by 2018/2019. Even with this planned expansion, the coverage remains constrained and many indigenous children will have no option but to attend a Khmer-speaking school.

A major milestone in 2015/2016 was the transformation of community multilingual teachers who met the required/equivalent qualifications to Government or contract teachers. Of all 183 multilingual education teachers, 146 are on the government payroll (at the time of writing). In addition, 87 multilingual education schools (or roughly 80 per cent) were transformed into state schools receiving the school operating budget. MoEYS aims to convert all remaining multilingual community schools to government schools. These are important events in the sustainability of the multilingual education approach. MoEYS has endorsed the piloting of multilingual education implementation across the full primary cycle in line with international good practice, rather than just the first three years. MoEYS has also agreed to collect and publish data on children's ethnicity within EMIS to help bring to light their participation in education and learning. This is in line with the Sustainable Development Goals (SDG), which emphasize disaggregated data to help ensure a focus on equity. The Government is committed to investigating the use of Jarai as a medium of instruction.

Given the high levels of poverty in the north east of the country, the distances to school and the barrier of the language of instruction, children from ethnic minorities are vulnerable to exclusion from school on a number of fronts and are reflected in the out-of-school dimensions.

32 The model involves development of multilingual teaching and learning materials in all five approved languages and training for indigenous community teachers on the multilingual teaching methodology and classroom management. Support is also provided to community teachers to upgrade their education to obtain the required qualifications, do the pre-service teacher training, and ultimately become Government teachers.



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Cheo at home with his teacher Ms. Nhik Pika.

ADAPTING EDUCATION TO MEET THE NEEDS OF CHILDREN FROM THE PHNONG COMMUNITY

Mondulkiri is located in the mountainous north east of Cambodia, surrounded by forests. Here the soil has a deep ochre colour and the air is cooler, providing a comforting break from the otherwise hot climate of Cambodia. A long, winding road in the mountains leads to Pou Trom Primary School in Romonea Commune, Sen Monorom District. It is a small school, home to only 52 students and three teachers and it provides multilingual education to Phnong children.

With support from CARE and UNICEF, all the teachers are undergoing training in Multilingual Education.

Kreok Cheo is 8 years old and is in Grade 3 of the multilingual programme. He speaks Phnong at home.

Cheo has a big family. He lives with 11 people, including his mother and father who farm potatoes, rice and bananas that they sell at the town market. Cheo has been part of the multilingual programme since Grade 1 when his mother was told about it by the school support committee. He is very happy that he can go to school.

"I like studying Phnong in school because the Khmer language is difficult for me. I have learned to write in Phnong which I could not do before, but I am still struggling with Khmer," he said. Cheo is a very shy boy and sits close to his mother and brother. He explains that his class is small, just like the rest of the school. There are only six students in his grade and he is one of two boys. The other boy is his best friend and they always play football together during the breaks.

Both Cheo and his mother are assisted with translation by Cheo's teacher, Ms. Nhik Pika. Cheo's father, Kroek Sam, tells us that before starting school Cheo could not understand anything in Khmer, which was a problem when leaving the village. "Now he can understand when people speak Khmer but he still cannot speak well himself, that's why it is so good that he is attending the multilingual programme," Mr Sam said.

Ms. Pika agreed. "It is really good that we have the multilingual programme here in our village,"

she said. "Since only 20 per cent of children in this area speak Khmer at home, school is the best place for them to learn.

"If they did not have this opportunity I believe many of them would struggle to participate in the community, ultimately affecting their development," Ms.Pika continued. "We have to keep expanding this programme and encourage students from ethnic minorities to keep both languages alive."

Mr. Chet Socheat, the Chief of the Primary Office in Mondulkiri, said many parents want their children to study exclusively in Khmer.

"Because they are a minority, many parents do not want their children to study in Phnong but they instead push for education to be only in Khmer, which is difficult for the children who do not understand," he said. "We have to make parents understand that the programme creates an important bridge between the languages. Most parents express fear of discrimination because they are Phnong and this is a problem that we have to address. The Multilingual Education Programme is one step in the right direction."

The positive effects of the programme are clear when hearing Cheo's story. Cheo's parents said attending school had helped Cheo overcome some language barriers, even though he has to keep working hard to improve his Khmer. "We believe it is important to support our children to keep studying," Mr. Kroek said. "Maybe Cheo can even grow up to study medicine and become a successful doctor. School will provide him with a good future."



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3.4. ANALYTICAL SUMMARY OF SUPPLY AND DEMAND-SIDE ISSUES AFFECTING CHILDREN'S PARTICIPATION IN EDUCATION

Cambodia is known to have comparatively strong legal and policy frameworks and this is also true for the education sector. There are provisions for ensuring all children have the right to education. However, one important gap in the legal frameworks is that primary education is not compulsory. This is a key constraint for educational inclusion.

There is a risk of a disconnect between the strong national policy and programming frameworks and their implementation at provincial and school levels. This is an issue that the school-based management reform seeks to address.

In relation to education financing, there has been an encouraging upward trend in the education recurrent budget since 2014, reaching 18.2 per cent in 2016. State education has been subsidized through the school operating budget since 2003. There is a need to take into account the fact that bringing the hardest-to-reach children into formal

education will require greater and more flexible school operating budgets. In view of the substantial charges levied by teachers for school attendance, it is felt that the school operating budget and teacher salaries are insufficient. The extra tuition fees are part of the reasons children are excluded from education.

MoEYS introduced legislation on scholarships at primary and secondary levels in 2015, however, given the extent of the demand-side barriers linked to poverty, particularly at lower secondary level, the amount and coverage are still limited.

A strong and appropriate focus has been placed on the need for a qualified, competent and motivated teaching force. Quality teachers may be the single largest determinant, within the context of the supply of education, affecting children's learning outcomes and their promotion through the education system. The challenge is sizeable. In future, teachers will

need a Bachelor's degree plus one year of training. Based on current standards, 44 per cent of primary teachers are under-qualified (HRMIS, 2012, 2013). It will be crucial to ensure that equity-focused provisions are built into the teacher education reform, including dedicated modules on inclusive education, as well as a strategy for building up a quality local teaching force in remote provinces. This is an important issue for out-of-school children and children at risk of dropping out in isolated areas, as research shows that less than 33 per cent of teacher trainees stated a willingness to work in remote schools. Teachers in rural areas tend to be less well prepared for lessons than their urban counterparts. MoEYS has raised teacher salaries and pledged to raise them even further to strengthen the professionalization and quality of the workforce, although further substantial increases will be needed.

As with the overarching policy frameworks, Cambodia's curriculum framework is strong, however, shortened teaching sessions, school holidays and teacher absence constitute key factors constraining its full implementation. Children in rural areas are particularly at risk. Subtle gender stereotypes are promoted through some textbooks. Research also identified certain inequalities in the pedagogy employed in some grades, where girls are less confident about answering and posing questions despite out-performing boys in assessments.

The implementation of child-centred pedagogy has not been fully embraced due to over-crowded classrooms, scarce resources, differing student abilities and an overloaded curriculum. The absence of interactive and engaging teaching and learning methods in classrooms is likely to have an impact on students' attendance and transition in education. A study showed that the lack of 'fun and enjoyable' student-to-student interaction in schools might contribute to children dropping out. As a result, a strong focus on pedagogy is called for within the context of the teacher education reform, with an appropriate blend of teacher-directed and student-centred learning drawing on local cultural norms and international good practice.



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A comparison of the equated test scores (anchor items) of the Grade 3 national standardized assessment showed that the average student's Khmer and math achievement increased by around 30 points between 2006 and 2015, which translates to about 0.30 standard deviations. This represents strong progress in the education system. Improvements at Grade 6 are less visible and Khmer scores decreased between 2007 and 2013, perhaps due to the multifarious factors affecting children's learning, including the accumulated impact of historical low quality. A deeper analysis shows that most of the decline in the scores was concentrated in small rural schools, while the improvements were in small urban schools.

With major progress in the coverage of education at primary level, challenges remain in the child-friendliness of the school environment, and in

particular the WASH facilities. This area has seen negative trends over the past six years. It may impact on absenteeism and lower academic performance.

Research has shown that corporal punishment and emotional violence still happen in some primary schools, which is likely to affect children's participation in school and their overall development.

Poverty remains one of the biggest obstacles to education, with a primary out-of-school rate of 20.1 per cent among the poorest children, and only 5.6 per cent among the wealthiest children. At the lower secondary level, children in the poorest quintile had an out-of-school rate more than seven times that of the wealthiest quintile. In the poorest quintile, the drop-out rate begins to rise from age 12, and by age 16 more than half of children in the poorest quintile have left school. An estimated 4 per cent of children aged 5 to 11 are economically active, increasing to 20 per cent by age 12 to 14 and 47 per cent by age 15 to 17. More than five in every 10 working children (50.4 per cent) aged 5 to 17 years are engaged in the agriculture, forestry and fishing sectors (55 per cent boys and 45 per cent girls). Short- and long-term migration represents major challenges to children's continuous participation in education.

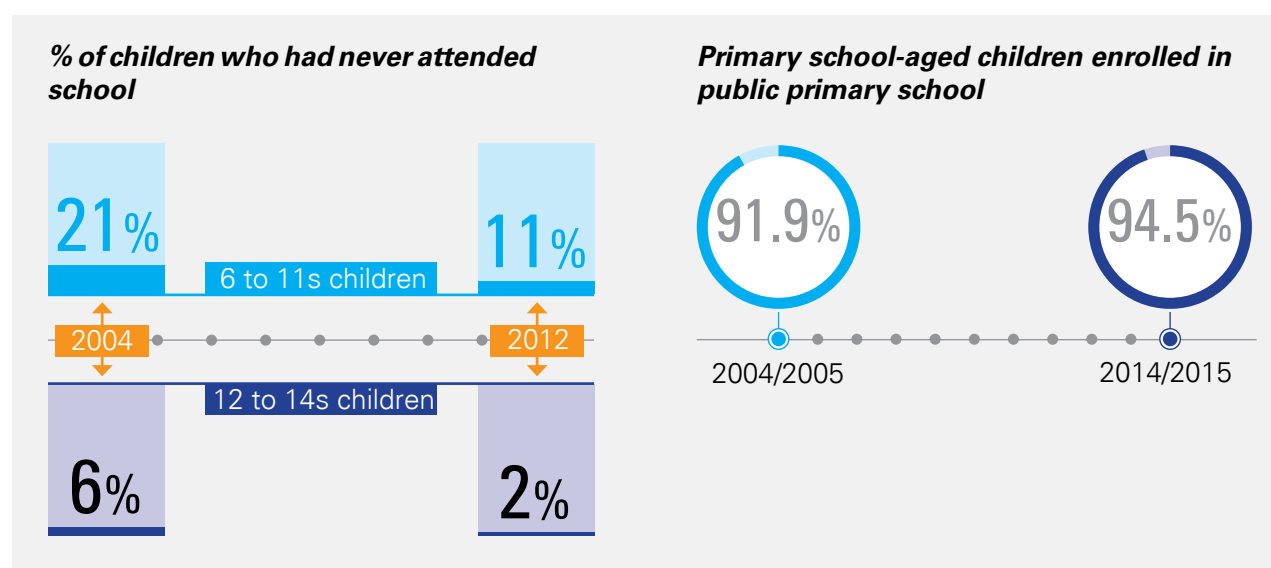
As discussed in Section 3.3.5., stunting has direct implications on education; 32.4 per cent of children under 5 years are stunted, and 8.9 per cent are severely stunted. Among children aged 6 to 11 years, 65 per cent who are out of school are reportedly considered 'too young' for school, which is likely associated with stunting caused by malnutrition, leading to late enrolment.

There are 32,056 children with disabilities aged 0 to 14 representing 10.7 per cent of the total population of people with disabilities. Among children with disabilities aged 15 to 19, the largest share (57.3 per cent) had never attended school and/or not completed primary school, while 15.4 per cent had completed basic education (primary and lower secondary education). As a result, children with disabilities remain a key group excluded from education.

The percentage of indigenous out-of-school children who have never attended school is extremely high, especially in the early primary years between the ages of 6 and 8 years. These children face travelling vast distances to school, as well as an unfamiliar language of instruction. MoEYS has sought to address this with the scale up of multilingual education through MENAP, although coverage remains constrained.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS



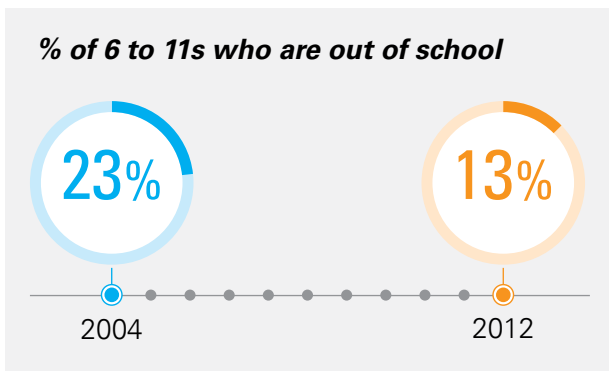
This section will seek to draw overarching conclusions from the whole study, analysing both the quantitative and qualitative data in relation to the profiles of out-of-school children, and making corresponding recommendations for supply - and demand-side interventions and policies.

Cambodia's education system has undergone rapid expansion since the 1990s with increased coverage of education at all levels, from pre-school through to secondary school. Demand for education has also increased. There has been major improvement in addressing total exclusion from education. In 2004, there were 21 per cent of 6 to 11 - year - olds and 6 per cent of 12 to 14 - year - olds who had never attended school; by 2012 these rates had dropped to 11 per cent and 2 per cent respectively.

Cambodia has achieved near universal enrolment in primary education. The proportion of primary school aged children enrolled in public primary school

has increased from 91.9 per cent in 2004/2005 to 94.5 per cent in 2014/2015. When including enrolment in private schools (3.4 per cent), the net enrolment rate rises to 97.9 per cent (98.4 per cent for girls). Gender parity in the primary net enrolment rate was achieved at the national level in 2007 and is currently slightly higher for girls. These are impressive achievements.

Despite this overall progress, school attendance among 5 - year - olds remains a major challenge in Cambodia, with 71 per cent not attending either pre-school or primary school. While this high rate may in part be due to the non-inclusion of children attending community pre-schools and home-based programmes, the comparatively low coverage of state pre-schools, together with the insufficient demand for early childhood education among Cambodian parents, remains a sizeable challenge for the whole education system, and children's learning more broadly.



There has been significant progress in increasing the participation of 6 to 11 - year - olds in school. The proportion this age group who are out of school reduced from 23 per cent in 2004 to 13 per cent in 2012. This is an important achievement and reflects system improvements in primary education. As expected, there is disparity in the out-of-school rates between the wealthiest and the poorest households, with 6 per cent in the wealthiest quintile of households and 20 per cent in the poorest quintile. The out-of-school rate is almost twice as high in rural areas (14 per cent) as in urban areas (8 per cent). A key challenge linked to the high number of 5-year-olds out of school is that almost half of all students enter Grade 1 late (52 per cent for girls and 44 per cent for boys).

For children aged 12 to 14 years, there has been a modest reduction, from 13 per cent in 2004 (roughly 107,000 young people) to 11 per cent in 2012 (and a reduction from 14 per cent to 10 per cent for girls over the same period) revealing broader challenges linked to the high opportunity cost of education for this age group. The urban rural disparities are also noteworthy with the average out-of-school rate in urban areas being 4 per cent, while in rural areas it is more than three times higher, at 13 per cent. Due to the comparatively weak efficiency of the education system, the majority of this age group is attending primary school (54 per cent). Nevertheless, there have been major improvements since 2004, when 71 per cent attended primary school. This shows an encouraging increase in the efficiency of the system although the 'rate of change' may be too slow to reduce the risk of drop out by the many over-aged children.

In real terms, the total estimated number of at-risk students (two or more years over age for their

grade) in basic education is 1.2 million, equivalent to 21 per cent, the majority of whom are in primary school. More than 85 per cent of at-risk students are in rural areas. Boys are particularly susceptible to dropping out in Grade 4 and Grade 8, while for girls, Grade 5 has the highest percentage of at-risk students.

The study showed that from a legislative and policy perspective, Cambodia has comprehensive frameworks enshrining the right of all children to education, including children who are vulnerable. One important gap however is legislation for compulsory primary education.

MoEYS also benefits from comparatively strong institutional capacity and systems for monitoring and managing out-of-school children, demonstrated for example by a robust Sector Strategic Plan, an EMIS Master Plan with systematic data collection and some analysis, and the recent creation of a Special Education Department focusing on building capacity to manage special education schools. The increase in the education budget since 2014 has been mainly absorbed by much-needed increases in teacher salaries, which helps to professionalize the service. Despite this, tuition fees levied by teachers for extra lessons remain pervasive and can be a barrier to quality learning for poor students who cannot afford to pay.

Despite increases in government funding for schools in 2014, Cambodia's spending per primary pupil is below regional norms and the school operating budget does not allow for dedicated support for out-of-school or at-risk children, or for school development more broadly. MoEYS did however introduce critical pro-poor legislation in 2015 with the expansion of government scholarships for poor children at primary and secondary levels. Given the extent of the demand-side barriers to education linked to poverty, particularly at lower secondary level, the amount of the scholarship and the coverage are still limited and are unlikely to make an impact on national enrolment or completion rates.

At the programmatic level, there are a variety of interventions that address the needs of out-of-school or at-risk children. These have benefited from development partner support but are insufficiently inter-linked or coordinated. More broadly, it is



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acknowledged that there is a gap between ESP policy ambitions and their implementation at the local level, and there are concerns that equity-oriented programmes are de-prioritized by MoEYS due to their substantial support from development partners. An important related challenge is the lack of discretion at the local level to develop tailored programmes to address the needs of out-of-school and at-risk children, although MoEYS is seeking to address this through School-Based Management Reform.

Household decisions on children's participation in school are influenced by a range of factors, such as: (i) school characteristics, including teachers, school infrastructure, teaching and learning environment and perceived levels of discipline; (ii) child characteristics, including health, ability and motivation; (iii) household characteristics, including wealth and parental education; and (iv) cost of school, including both direct and indirect opportunity costs (Glewwe and Kremer, 2006). As a result, throughout this study, it has been important to hold both supply- and demand-side issues in dynamic tension.

In relation to supply-side issues, the teaching force is one of the most influential factors affecting

children's participation in school. The rapid reconstruction of the education system and the ensuing swift deployment of a new teaching force across the country has resulted in an under-qualified teaching cadre today. Teachers have been trained under a number of different 'formulas' over time as the country developed, however the rate of development has varied from province to province leaving inequities. At the national level, 44 per cent of primary teachers are under-qualified based on current standards (HRMIS, 2012, 2013).

Literature shows that Cambodian teachers lack competencies in relation to subject knowledge and pedagogy. This is a particular concern in remote areas which often serve the most vulnerable children. There is comparatively little lesson planning and an absence of school-based pedagogical support for teachers in the form of coaching, particularly affecting children with special learning needs. To address these issues, the Government has initiated an ambitious reform to upgrade the teaching force to align with regional standards and equip learners with the skills and knowledge for the 21st century. In view of the challenge of implementing such an ambitious reform, there is a risk that MoEYS will focus on high achieving provinces and there will



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be a lack of adaptation to areas with high numbers of under-qualified teachers. Likewise, the content of teacher education may focus to a greater extent on 'mainstream issues' rather than areas such as inclusive or multilingual education, for example.

The limitations of the teaching force have a direct bearing on the implementation of the curriculum, which while strong at the policy level, is not fully rolled out at the school level. Shortened instructional hours are a major barrier to learning and a particular challenge in rural areas. The study showed that in some cases, the absence of gender-responsive pedagogies meant girls lacked confidence in answering and asking questions in class. This relates to system-wide challenges in embracing child-centred teaching and learning methods as opposed to the preferred conventional didactic approach. It is noteworthy, as the absence of interactive and engaging teaching and learning methods is likely to have an impact on students' attendance and their interest in pursuing education. A longitudinal study showed that the lack of 'fun and enjoyable' student-to-student interaction in school could be a factor in contributing to children's drop out (No, 2012). It is foreseen that a future system for continuous professional development

for teachers (or in-service training) as well as pre-service teacher education would include a strong focus on pedagogy.

Linked to pedagogy is the overall school safety communicated through verbal and non-verbal language by teachers and between students. Again, in this area the legislation and policy frameworks protecting children from harm are in place, however corporal punishment and emotional violence are still a reality in some primary schools. This can lead to fear and absenteeism among children.

Cambodia successfully introduced EGRA in 2011/2012 with the re-introduction of the traditional teaching approach called Chet Chhem, a more phonics-based approach. Baseline results showed very weak learning outcomes in math and, as a result, EGMA is being introduced. Confirming conclusions on the shortcomings of pedagogy, results in the upper grades of primary showed weaknesses in children's conceptual understanding. These skills are best promoted through exercises, games and problem solving, rather than recitation or repetition. MoEYS has rightly prioritized children's mastery of foundational literacy and numeracy as the bedrock of their future learning and development.

A comparison of the equated test scores of the national standardized assessment data showed promising improvements in children's learning outcomes. In Grade 3, an average student's Khmer and math achievement increased by around 30 points between 2006 and 2015, which translates to about 0.30 standard deviations. The improvements at Grade 6 between 2007 and 2013 are less visible and scores on Khmer decreased. This may be due to the slow pace of educational change and the multifarious factors affecting children's learning, including the accumulated impact of low quality on children's learning outcomes in the last year of primary. It is significant that most of the decline in the scores was concentrated in small rural schools, while improvements were in small urban schools.

An analysis of children's learning outcomes by wealth quintile over different years shows that the largest disparities in learning outcomes are in Grade 3, particularly in math with a difference of 19.3 percentage points between low and high SES. By Grade 8 the difference in scores in math reduced to 10 percentage points, with similar progressions in Khmer. This clearly shows that staying longer in school levels the playing field and disproportionately benefits children from low SES. Other data reveals that repetition is negatively associated with learning outcomes. This concurs with the quantitative data on at-risk children due to being over-age based on late entry to Grade 1, repetition or both.

In terms of the hardware of education, at the primary level this is no longer a factor affecting inclusion. However, the availability and functionality of WASH facilities have seen downward trends, which can affect children's regular attendance in school as well as their learning outcomes. This has been identified as a particular issue for girls entering puberty. As Cambodia develops and cars and motorbikes become more widespread, concerns over road accidents have been identified as obstacles to attending school.

Poverty remains one of the biggest obstacles to education, with a primary out-of-school rate of 20.1 per cent among the poorest children and only 5.6 per cent among the wealthiest children. At the lower secondary level, children in the poorest quintile had an out-of-school rate more than seven

times that of the wealthiest quintile. By age 16, more than half of children in the poorest quintile have left school. An estimated 20 per cent of 12- to 14 - year - olds and 47 per cent of 15 to 17 - year - olds are economically active, with the largest share of all economically active children being 15 to 17 - years - old and living in rural areas. The biggest 'employers' are agriculture, forestry and fishing. Migration, which is inextricably linked to poverty, is another major issue affecting children's continuous participation in education, with the largest share of migrants moving to Phnom Penh. Almost one fifth of migrant children drop out of school and the majority cite the cost of schooling as the reason, which is logical given the higher cost of schooling in the capital.

Data suggest that the single biggest factor affecting children's participation in education is disability, with 57.3 per cent of children with disabilities aged 15 to 19 years never having attended school and/or not having completed primary school (CSES, 2009). This is a significantly higher proportion of exclusion than for other groups. It is important to note that there are challenges in the collection of data on people with disabilities and it is assumed that disability is under-reported in CSES. Therefore the actual proportion may be even higher. Due to a lack of published data on children with disabilities in EMIS, they have not been included in enrolment and cost projections, leaving them largely invisible in mainstream government plans and budgets.

CSES data from 2009 also show that children from ethnic minorities and in particular indigenous minorities have higher out-of-school rates than Khmer children (indigenous minorities represent 1.3 per cent of the total population). At primary level, Cham children have an out-of-school rate of 22.3 per cent while indigenous minorities have an extremely high rate of 73.2 per cent (even higher for boys at 80.3 per cent). The out-of-school rate for 12 to 14 - year - olds is 12.3 per cent among Chams (slightly above the national rate) and a striking 46.9 per cent among indigenous minorities. Only 3.5 per cent of this age group were attending lower secondary school and the vast majority were still in primary, showing severe delays in their promotion through school. The percentage of indigenous out-of-school children who had never attended

school is extremely high, at 91.5 per cent among 6 - year - olds and 71.3 per cent among 8 - year - olds (CSES, 2009). As a result, the data indicate that ethnicity may be the next biggest factor affecting participation in education. It is important to note that children do not inhabit static categories and may be in the lowest SES, be migrants, or be from indigenous minorities, therefore it is not possible to draw conclusions regarding a 'hierarchy' of factors affecting exclusion. Primary, qualitative research would be needed for this.

The high out-of-school rates among indigenous minorities can partly be attributed to the fact that the majority of schools use Khmer as the language of instruction, which is different from the language children speak at home. This means that schooling can seem very foreign to children from indigenous minorities, as the language and concepts are different from their daily context. MoEYS is to be commended for introducing multilingual education to address the learning needs of indigenous minorities in 2002, incorporating teacher training and material development with subsequent legislation for the use of five indigenous languages in school. The Government has also placed the majority of indigenous teachers with the required qualifications on the payroll and ensured schools receive a school operating budget. More recently, the ministry has launched MENAP, the first of its kind in the region, which provides for the institutionalization and incremental expansion of the approach at pre-school and primary levels. Even with this planned expansion, the coverage remains constrained and many indigenous children will have no option but to attend a Khmer-speaking school.

As discussed, both supply - and demand-side factors affect household decisions regarding children's school attendance. Given that indigenous minorities live in remote highland areas which are sparsely populated, and therefore have lower coverage of schools, this impacts their participation. Children have to travel greater distances to access schools. It is important to note that higher levels of exclusion from education among indigenous minorities are not characteristic of the ethnicity per se but are also linked to the supply-side constraints

and broader challenges in providing tailored and flexible education to meet their particular needs.

In relation to children's family contexts, mothers who have completed lower secondary or higher education are a positive predictor of children's school enrolment. In relation to children's nutritional status, both stunting and underweight seem to be negatively correlated with mothers' level of education and family wealth. The high proportion of children under 5 years who are stunted (32.4 per cent) and are underweight (23.9 per cent) is an important challenge for children's cognitive and educational development. This may also partly account for children's late entry to primary school, as 65 per cent of children aged 6 to 11 years who are out of school are reportedly considered 'too young' for school. This could be linked to their height rather than their age.

UNESCO published a recent report analysing the economic costs of out-of-school children through microeconomic and macroeconomic cost estimations in seven countries: Cambodia, Indonesia, Lao PDR, the Philippines, Thailand, Timor-Leste and Vietnam. It estimated the total earnings that would be forfeited as a result of an under-educated work force if primary school enrolment patterns continued. In the microeconomic cost estimation, labour productivity and wages were analysed to calculate wage premiums (i.e., the estimated percentage difference in economic earnings for those who complete primary education and for those who do not). In Cambodia, out-of-school children resulted in a direct economic cost of 0.45 per cent of the GDP measured through lost productivity of wages. All countries researched would have an estimated economic gain from achieving universal primary enrolment which would be greater than the estimated increase in public spending required to enrol all out-of-school children in primary school (Thomas and Burnett, 2015). This is extremely pertinent within the strong national context of the need to ensure education is promoting socio-economic development.

This research has shown that Cambodia has made huge progress in reducing inequalities between groups and total exclusion from education through rapid expansion of education coverage, the provision

of government-subsidized education at all levels, as well as comparatively strong management capacity by MoEYS at central level. The Government has also been open to technical support from development partners in designing and initiating equity-focused programmes targeting out-of-school and at-risk children. There is however room for these to be better coordinated and resourced by MoEYS.

The analysis has shown that challenges persist to varying degrees across all dimensions. Exclusion is particularly high among 5 - year - olds and this has a knock-on effect on all other dimensions. This is due to children’s comparatively low readiness to learn, socialization prior to starting at primary, and the likelihood of starting late. Research shows a reduction in exclusion among 6 to 11 - year - olds since 2004 of 10 percentage points, although at the primary level there are still almost 1 million children who are two years or more over age. Progress has been slower among 12 to 14 - year

- olds, with only a mild reduction in the out-of-school rate. This is associated with the increased opportunity costs of education as children get older, as well as perceived low private return on basic education. The strength of ‘pull factors’ grows as Cambodia’s economy develops. Drop out among this group is particularly high, at almost 10 per cent (11 per cent for boys). Exclusion increases dramatically among 14 to 18 - year - olds where the link between being over age and dropping out can be seen most clearly, as the proportion of over-age children in school decreases and the proportion of children dropping out increases exponentially. This reveals the urgency of addressing the efficiency and quality of the Cambodian education system to ensure more children complete a full cycle of pre-school through to Grade 12, such that the education system fosters harmonious citizenship and equips children for further study and successful transition to the world of work.



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4.2. RECOMMENDATIONS

This section will make recommendations for MoEYS and partners in relation to supply-side policies and programmes and demand-side interventions based on the findings of this study. These recommendations are categorized by Dimensions 1, 2 and 3, and two further management categories for teacher reform and equity-focused programmes.

PROMOTE GREATER PARTICIPATION IN EARLY CHILDHOOD DEVELOPMENT

To substantially increase participation in pre-school and promote young children's holistic developmental needs, as well as broader performance in education:

1. Conduct intensive Communication for Development initiatives among parents to build demand for early childhood education,

explaining the short - and long-term benefits of early childhood development and early childhood education.

2. Promote play and gender-responsive pedagogies within the early childhood education curriculum ensuring an appropriate balance with developing literacy.
3. Strengthen the quality of community pre-school ensuring clear ministerial mandates regarding the provision of teacher training, the allocation of recurrent costs and overall management with in the context of deconcentration and decentralization; in the longer-term, ensure all primary schools have one state pre-school class.
4. Ensure state pre-school and community pre-school teacher training are fully integrated into the teacher education reform.
5. Introduce a sustainable approach to nutrition in pre-schools including deworming and health screening for young children to detect developmental delays and disability.

INCREASE ATTENDANCE OF THE MOST VULNERABLE CHILDREN IN PRIMARY EDUCATION

6. Make primary education compulsory, in line with the United Nations Convention on the Rights of the Child, linked to the provision of social safety nets such as the expansion of poverty-based scholarships and the provision of uniforms and learning materials/bicycles for poor students, and complemented by right-age enrolment campaigns.



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7. Substantially increase the school operating budget, introducing greater flexibility to enable the delivery of tailored programmes to meet the learning needs of hardest-to-reach children and enforce compliance of no tuition fees in schools.
 8. Formulate a comprehensive and costed policy framework, identifying the provision, pathways and phasing of equity-oriented education programmes, addressing the needs of never enrolled children, over-aged children, children who have dropped out and migrant children.
- The framework would include the re-entry programme, the accelerated learning programme, school-based remedial classes and the flexible learning calendar, with a clear tracking system.
9. Develop school- and commune-level referral mechanisms to the Department of Social Affairs, Veterans and Youth for children who have dropped out or are at risk of dropping out within the context of the forthcoming Child Protection Policy.
 12. Consider introducing accelerated learning at lower secondary level with a focus on over-aged boys.
 13. Scale up and institutionalize the early warning programme for children at risk of dropping out.
 14. Roll out dedicated teaching hours on life skills by infusing with core subjects, as well as specialized subjects, in order to strengthen the relevance of education.
 15. Ensure the regulation of private companies who employ children and create incentives for employers to take on only children who have done the lower and upper secondary education exam (rather than those with only primary education).

PROMOTE ATTENDANCE IN LOWER SECONDARY EDUCATION THROUGH SOCIAL PROTECTION MEASURES

To make lower secondary education more accessible to poor children and enable retention:

10. Increase the amount and coverage of scholarships, including the provision of bicycles.
11. Conduct intensive Communication for Development initiatives among parents and children to build demand for lower secondary.

ENSURE THAT THE TEACHER EDUCATION REFORM STRENGTHENS THE QUALITY OF LEARNING THROUGHOUT THE COUNTRY

To have the greatest impact on teaching practice and children's learning:

16. Ensure a strong focus on building a systematic and coordinated continuous professional development system for teachers.
17. Strengthen teacher pedagogy through pre- and in-service training with an appropriate blend of teacher-directed and student-centred learning, drawing on local cultural norms and international good practice, based on gender-responsive teaching and learning methods and supported by teacher mentoring.

18. Create a dedicated strategy within the Teacher Policy Action Plan for building and retaining a core of qualified local teachers in remote areas.
19. Include equity-focused modules on inclusive education, multilingual education and accelerated learning within the emerging pre-service and in-service teacher education curriculum, based on core and elective modules.

STRENGTHEN THE MANAGEMENT AND FINANCING OF EQUITY-ORIENTED PROGRAMMES

To ensure institutional capacity is in place to oversee and resource equity-oriented programmes:

20. Review the questions in the CSES and the EMIS Annual School Census Form to ensure disaggregated information is captured in line with SDG 4; promote the analysis of CSES and CDHS in the annual education congresses (national and provincial) to ensure more comprehensive information; establish an IT-based national student identification system with information on student biodata, attendance, assessment data and other relevant student performance

information within the context of the inspection reform.

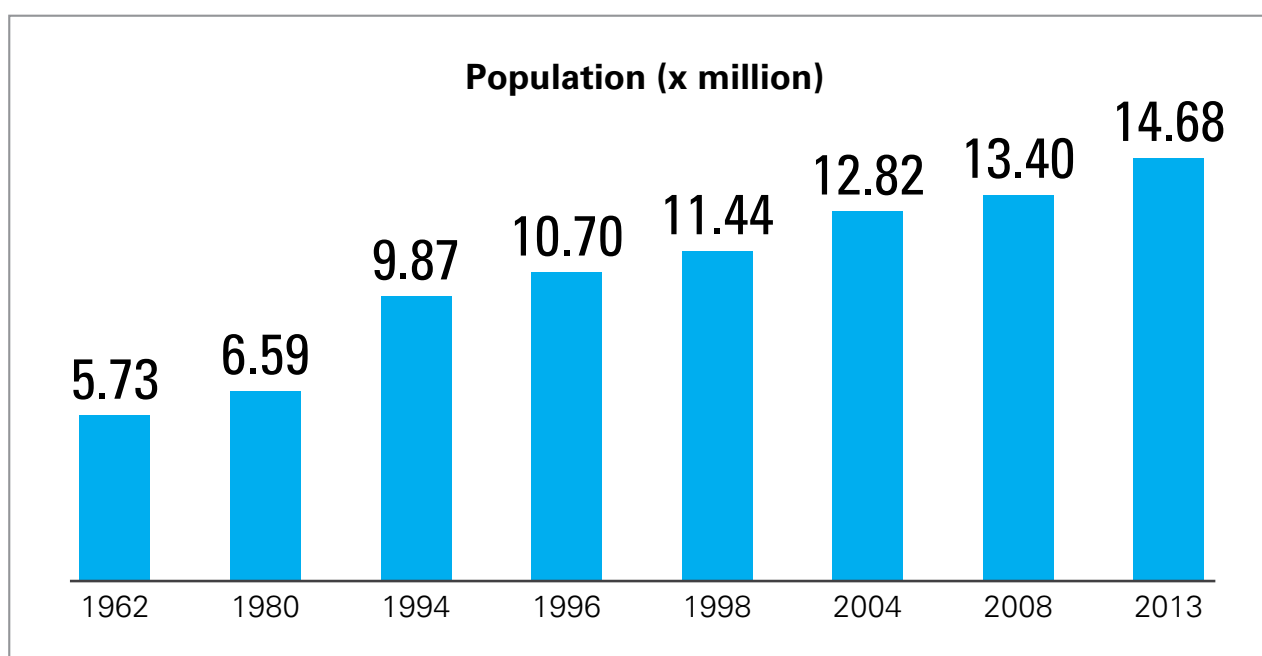
21. Strengthen education planning and projection models with more accurate, disaggregated data including on children with disabilities and children from ethnic minorities so that their learning needs are factored in to simulations and budgets at national and sub-national levels.
22. Develop a national framework for assessments and examinations ensuring analysis informs policy at national level and teaching practice at school level.
23. Strengthen school-based management linking the school development plan and school operating budget to progress in participation rates and teacher performance, thereby strengthening the connection between budget and results.
24. Strengthen coordination of WASH in schools with the Ministry of Rural Development, ensuring protected funding within the school operating budget for the operation and maintenance of WASH facilities and a dedicated separate stream for capital expenditure.

ANNEXES

ANNEX 1: DEMOGRAPHICS AND CHARACTERISTICS OF SCHOOL AGED CHILDREN

Cambodia has a population of approximately 14.68 million people, as projected by the latest CIPS 2013. The population of Cambodia was only 5.7 million according to the 1962 census which was the first official census conducted after the country attained independence from French rule. Cambodia's demographic scenario changed completely after that census due to the Khmer Rouge period of the 1970s and ensuing civil war.

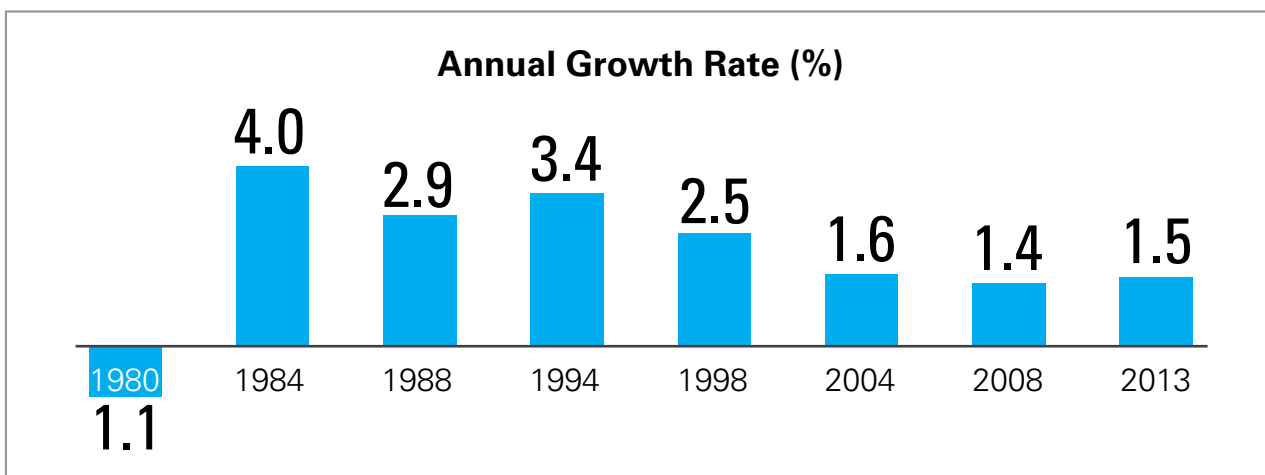
Table 4-1: Population trends in Cambodia



Source: MoP, 2013

The annual population growth rate at national level was estimated at 1.54 per cent in 2013, which is slightly higher than the average 1.46 per cent growth rate from 2008 to 2013, according to the CIPS 2013 estimate. The population growth rate in the 2000s represents a significant decline compared to the 1980s and 1990s, with an average growth rate near 3 per cent as Cambodian family life settled down after civil unrest.

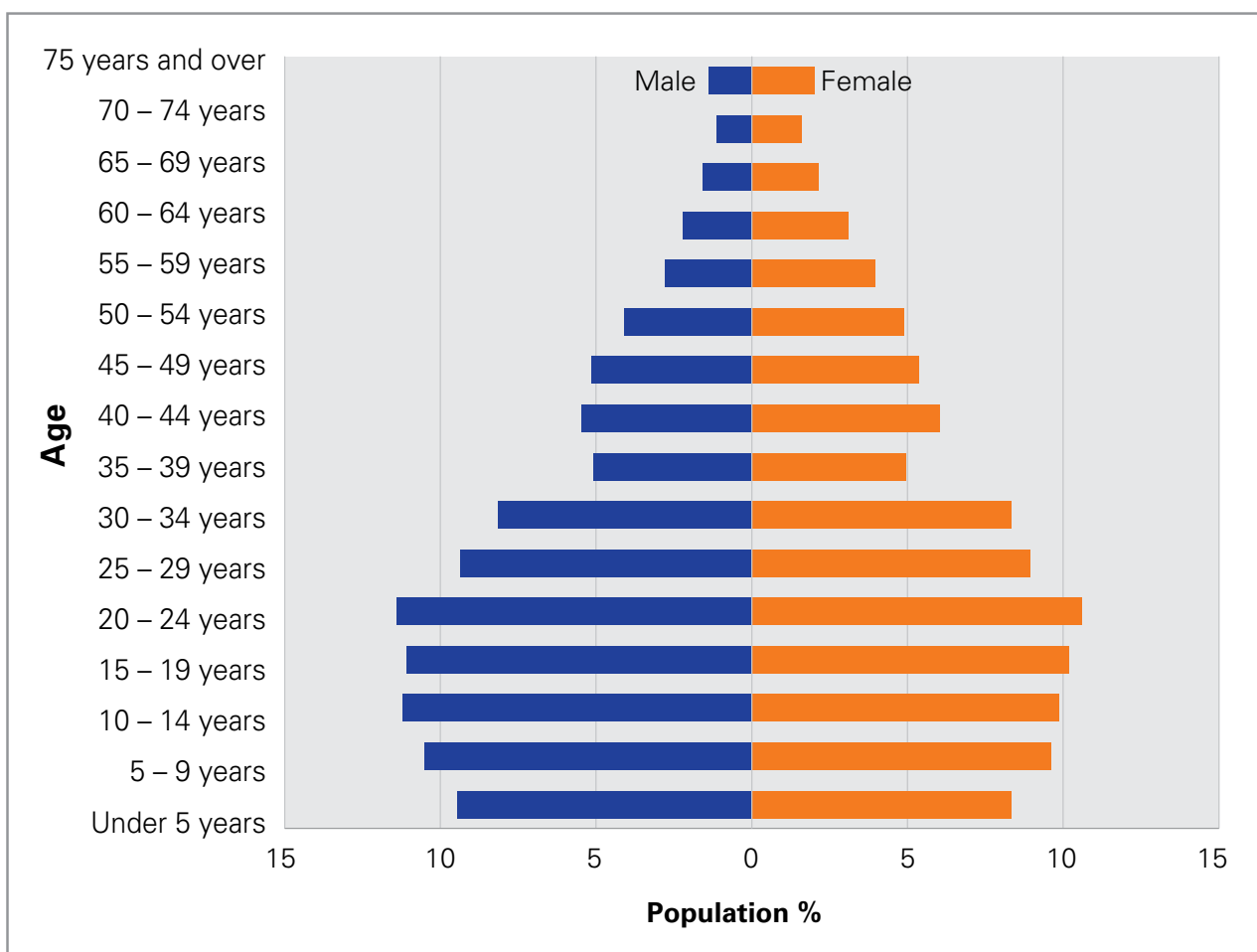
Table 4-2: Annual population growth rate in Cambodia



Source: World Bank Development Data and Statistics

The enormous loss of life during the Khmer Rouge period, combined with ensuing high population growth, lead to an unusual population distribution. Table 4-3 below highlights some of the unusual features of Cambodia’s current population distribution. Cambodians under 25 years of age account for more than half of the population (51.1 per cent), albeit with a slight drop in the 0 to 9 - age cohort. The relatively low numbers of people in the 50+ age groups, especially men, are due to the very high levels of mortality during the 1970s.

Table 4-3: Population pyramid, Cambodia, 2013



Source: MoP, 2013

In the overall population, there are more females than males, largely due to differential mortality affecting men during the late 1970s. Currently, about 51 per cent of adult Cambodians are women, or a gender ratio of 94.3 (or 94.3 males per 100 females). Around 78.6 per cent of Cambodians live in rural areas, which have a slightly lower gender ratio than urban areas.

Table 4-4: National population by gender and location, 2013

Location	Total population	Percent of national population	Male	Female	Gender ratio*
Urban	3,146,212	21.4	1,527,479	1,618,734	94.36
Rural	11,530,378	78.6	5,594,029	5,936,349	94.23
National	14,676,590		7,121,508	7,555,083	94.26

*Note: Gender ratio is the number of males per 100 females

Source: MoP, 2013

Tables 4-5 to 4-7 present the school age population at the national, urban and rural levels. As shown above, at the national level, there is a higher percentage of females than males. However, at the school age level (5 to 14 years), there are significantly more males than females, especially the age-5 cohort (see Table 4-5). The higher number of males at birth decreases with age as a result of higher mortality among males and a large-scale exodus of adult males from Cambodia during the years of the Khmer Rouge regime (MoP, 2013).

Table 4-5: National population by school age group, 2013

Age group	Age group population	Per cent of national population	Male	Female	Gender ratio*
Pre-primary (Age 5)	304,631	2.1	160,141	144,490	110.8
Primary (Age 6-11)	1,750,634	11.9	885,660	864,973	102.4
Lower Secondary (Age 12-14)	962,545	6.6	500,101	462,444	108.1
Upper Secondary (Age 15-17)	896,334	6.1	456,350	439,986	103.7

*Note: Gender Ratio is the number of males per 100 females

Source: MoP, 2013

Another key feature of the demographic pattern is that the school age population (age 5 - 17) is significantly higher in rural areas than in urban areas. In urban areas, the 5 to 17 - age group represents 22.8 per cent of the total urban population. By comparison, in rural areas the 5 to 17 - age group represents 27.7 per cent of total rural population. The difference in the share of primary school age population is particularly striking. In rural areas, 12.5 per cent of the population is in the 6 to 11 - age group, compared to only 9.9 per cent in urban areas.

Table 4-6: Urban population by school age group, 2013

Age group	Age group population	Per cent of national population	Male	Female	Gender ratio*
Pre-primary (Age 5)	59,930	1.9	33,050	26,880	123.0
Primary (Age 6-11)	310,129	9.9	156,247	153,882	101.5
Lower Secondary (Age 12-14)	178,168	5.7	97,648	80,522	121.3
Upper Secondary (Age 15-17)	167,967	5.3	87,211	80,756	108.0

*Note: Gender Ratio is the number of males per 100 females

Source: MoP, 2013

Table 4-7: Rural population by school age group, 2013

Age group	Age group population	Per cent of national population	Male	Female	Gender ratio*
Pre-primary (Age 5)	244,701	2.1	127,091	117,610	108.1
Primary (Age 6-11)	1,440,505	12.5	729,414	711,092	102.6
Lower Secondary (Age 12-14)	784,377	6.8	402,454	381,923	105.4
Upper Secondary (Age 15-17)	728,368	6.3	369,138	359,230	102.8

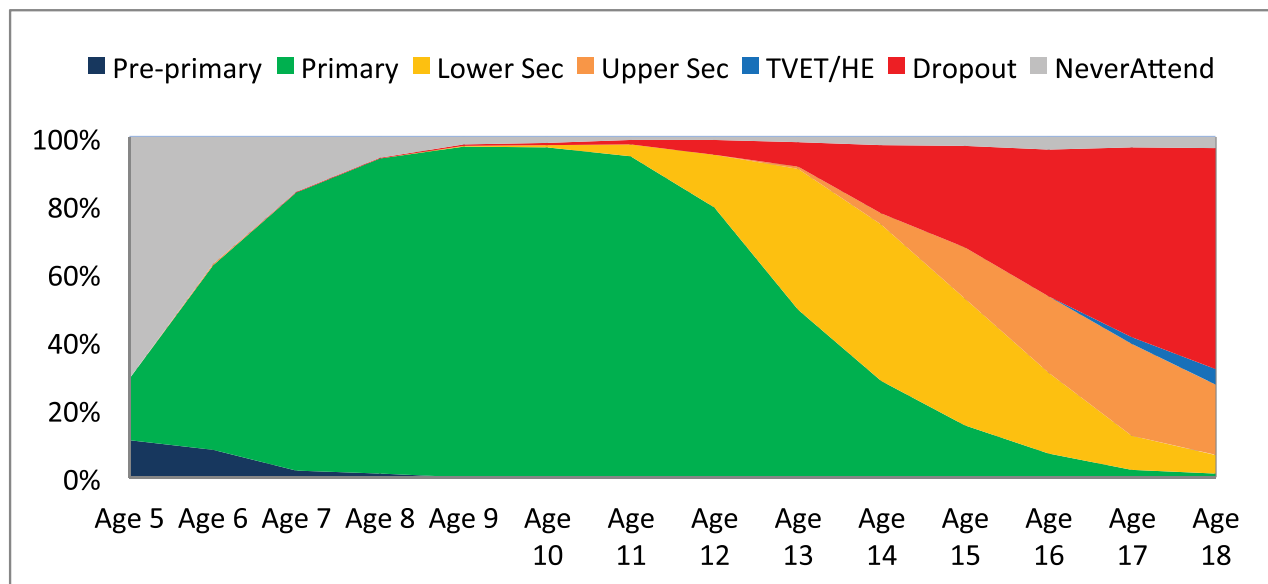
*Note: Gender Ratio is the number of males per 100 females

Source: MoP, 2013

The education sector development plan needs to be responsive to this demographic pattern. Although the population aged 0 to 4 years is declining, there will continue to be upward demand on the system over the medium term, especially at the secondary level, as the current cohort of age 5 to 14 years moves up the education ladder in the coming years.

ANNEX 2: PARTICIPATION IN SCHOOL BY AGE AND EDUCATION LEVEL

Figure 4-1: Participation in school by age and education level



Source: Author's calculation from CSES 2012

ANNEX 3: PROVINCIAL DEMOGRAPHIC OVERVIEW

The provincial analysis uses the CSES 2009 dataset due to its large sampling size. The CSES 2012 survey covered 3,800 households and around 17,000 people; hence it is only statistically valid at the national level. The CSES 2009 covered nearly 12,000 households and 57,000 people; hence it is more representative statistically at the sub-national level. Although the CSES data could be considered out-dated, the main objective of this section is to highlight any disparity at the provincial level on out-of-school children.

At the sub-national level, Cambodia is organized into 25 provinces³³. Table 4-8 below presents the provincial population distribution from the 2008 national census. The CSES 2009 household sampling was devised based on this.

³³ In 2014, a new province, Thbaung Khmum, was created. The total number of provinces is 25.

Table 4-8: Provincial population distribution, Census 2008

Province	Population	Gender Ratio	Khmer	Cham	Indigenous	Chinese	Vietnamese	Thai	Laos	Others
Banteay Meanchey	677,872	95.8	100%	0%		0%	0%	0%	0%	
Battambang	1,025,174	97.6	99%	1%		0%	0%			
Kampong Chhnang	1,679,992	95.0	92%	8%	0%	0%	0%			0%
Kampong Cham	472,341	92.5	81%	15%		0%	3%	0%		
Kampong Speu	716,944	94.6	100%	0%	0%	0%	0%			
Kampong Thom	631,409	95.1	97%	0%	3%	0%				
Kampot	585,850	94.2	94%	6%	0%	0%				
Kandal	1,091,170	93.9	97%	2%	0%	0%	1%			
Kep	35,753	102.0	100%							
Koh Kong	117,481	99.4	93%	6%				1%		
Kratie	319,217	105.5	96%	4%		0%	0%	0%		
Mondul Kiri	61,107	89.1	21%	0%	68%					10%
Otdar Meanchey	185,819	99.4	100%							
Pailin	70,486	91.7	100%							
Phnom Penh	1,501,725	94.5	97%	1%	0%	0%	1%	0%		0%
Preah Vihear	171,139	102.4	100%	0%						
Prey Veng	947,372	96.4	100%		0%	0%	0%	0%		
Pursat	397,161	100.1	100%	0%						
Ratanak Kiri	150,466	99.3	24%	1%	74%	0%	0%			1%
Siem Reap	896,443	92.2	100%	0%	0%		0%			
Preah Sihanouk	221,396	94.6	100%							
Stung Treng	111,671	101.6	97%		3%					
Svay Rieng	482,788	97.8	100%	0%		0%	0%			
Takeo	844,906	106.4	100%	0%				0%		0%
Cambodia	13,395,682	94.7	96%	2%	1%	0%	0%	0%	0%	0%

Source: MoP/NIS, Census 2008

The most populated province is Kampong Cham with a population of 1,679,922. The three other provinces with a population of more than one million people are Phnom Penh (1,501,725), Kandal (1,091,170) and Battambang (1,025,174). The least populated province is Kep with only 35,753 people. The two other provinces with a population of less than 100,000 people are Mondulkiri (61,107) and Pailin (70,486).

In 19 out of 24 provinces, more than 80 per cent of the population live in rural areas. Takeo is the most rural province of all, with 98 per cent of its total population living in rural areas. In the five provinces where less than 80 per cent of the population is rural, the capital Phnom Penh stands out. Here, only 5.6 per cent of the population lives in rural areas, while in the other four provinces that figure is 60 per cent or higher.

Mondulkiri and Ratanakiri both have very high numbers of indigenous people, with Mondulkiri's population being 68 per cent indigenous and Ratanakiri's being 74 per cent indigenous. The other province that has a relatively high minority ethnic population is Kampong Chhnang, where 15.4 per cent of its total population is Cham.

ANNEX 4: REFERENCES

- Benveniste, Luis, Jeffery Marshall and M. Caridad Arango, *Teaching in Cambodia*, World Bank, Washington D.C., 2008.
- Bray, M., M. N. Kobakhidze, J. Liu and W. Zhang, 'The internal dynamics of privatised public education: Fee-charging supplementary tutoring provided by teachers in Cambodia', *International Journal of Educational Development*, vol. 49 (2016) pp. 291–299.
- Bredenberg K., 'Educational Marginalization of Cham Muslim Populations: A Report from Cambodia', *Journal of Education for International Development* vol. 3 no.3, (2008) pp. 1–26.
- William C. Brehm, Iveta Silova and Tuot Mono, *The Public-Private Education System in Cambodia: The Impact and Implications of Complementary Tutoring*, Open Society Foundations - Education Support Programme, London, 2012.
- Bruce. L. and J. Nicewinter, 'Education for All – An Integrated Approach from the Cambodian Consortium for Out of School Children in Cambodia: Baseline Survey', Angkor Research and Consulting Ltd., Phnom Penh, 2015.
- Cambodia Development Resource Institute, Sothy, K., S. Madhur and C. Rethy, eds., *Cambodia Education 2015: Employment and Empowerment*. Phnom Penh, CDRI, 2015.
- Cambodian Economic Association, *Study on Student Drop out at Lower Secondary School in Cambodia: A Mixed Approach*. CEA, Phnom Penh, 2014.
- Cambodian Economic Association and United Nations Children's Fund, *Drop out Incidence at Primary and Lower Secondary Schools: Evidences from Scholarship Support Programs*. 2015.
- Cambodia Institute of Development Study and International Labour Organization, *Rapid assessment on child labour in the sugarcane sector in selected areas in Cambodia: A comparative analysis*. ILO, Bangkok, 2015.
- Cambodia National Council for Children, *Cambodia Child Tracker Bulletin*, 2012. <www.unicef.org/cambodia/Child_Tracker_Bulletin.pdf>, accessed 24 November 2015.
- Cambodia National Council for Children, 'Child Tracker Survey', 2012.
- Conférence des ministres de l'Éducation des Etats et gouvernements de la Francophonie, Ministry of Education, Youth and Sport, 'Findings from PASEC Assessment in Cambodia', Phnom Penh, 13–15 November 2013.
- Abelardo Cruz and L. Ratana , *Understanding Children's Work in Cambodia: Mapping & Costing Current Programmes Targeting The Worst Forms Of Child Labour*. Understanding Children's Work (UCW) Programme, An Inter-Agency Research Cooperation Project, ILO-UNICEF-World Bank Group, Rome, 2007.
- Jonathan Jacob Doll, Zohreh Eslami and Lynne Walters, *Understanding Why Students Drop Out of High School, According to Their Own Reports: Are They Pushed or Pulled, or Do They Fall Out? A Comparative Analysis of Seven Nationally Representative Studies*, SAGE Open Journals, Michigan, 2013.
- Education for All Fast Track Initiative, *OOSC Pilot Report, Cambodia*, 2011.

- Environmental Sanitation Cambodia - Bremen Overseas Research and Development Association, School Based Sanitation 5.0, Health Impact Evaluation Synthesis Report, Baseline (12/2014) and Follow-up (01/2016) comparison. Environmental Sanitation Cambodia - Bremen Overseas Research and Development Association (ESC-BORDA), 2016.
- Filmer, Deon and Norbert Schady, 'School Enrolment, Selection and Test Scores Policy Research Working Paper 4998', World Bank, Washington, D.C., 2009.
- GIZ, Cambodia, 'Fit for School Programme: WASH Survey Results', 2014.
- GIZ, Cambodia, 'Fit for School: Regional Fit for School Programme with a Focus on Pandemic Preparedness', 2013. <<http://giz-cambodia.com/wordpress/wp-content/uploads/FactSheet-Fit-for-School-final-30.08.pdf>>, accessed 24 November 2015.
- Global Road Safety Initiative, 'Walk Safe training conducted for students in Cambodia', 2013, <www.grsproadsafety.org/news/walk-safe-training-conducted-students-cambodia>, accessed 4 August 2016.
- Hammond, Cathy, Dan Linton, Jay Smink and Sam Drew, Drop Out Risk Factors and Exemplary Programs: A Technical Report, Clemson, South Carolina, National Drop out Prevention Center, 2007.
- Hasan, M. Q., Profiles of Out of School Children, Cambodia, United Nations Children's Fund, 2012.
- Hattie, J., Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement, Abingdon, Routledge, 2008.
- International Labour Organization, United Nations Children's Fund and World Bank, The Twin Challenges of Child Labour and Educational Marginalization in the East and South-East Asia Region: Preparing for a Post 2015 World, Centre for Economic and International Studies, Rome, 2015.
- International Traffic Safety Data and Analysis Group, IRTAD Annual Report–Cambodia, 2014, <www.oecd-ilibrary.org/docserver/download/7514011ec010.pdf?expires=1470285915&id=id&accname=guest&checksum=E10DCD26B26490DF6868884325F4730B>, accessed 4 August 2016.
- Jordan, W. J., J. Lara and J. M. McPartland, Exploring The Complexity Of Early Drop out Causal Structures, Baltimore, Maryland, Center for Research on Effective Schooling for Disadvantaged Students, The Johns Hopkins University, 1994.
- Japan International Cooperation Agency, 'Summary of Findings in STEPSAM3 Baseline Survey. Project for Educational Resource Development in Science and Mathematics at the Lower Secondary Level', JICA, Cambodia, 20 January 2015.
- Kampuchean Action for Primary Education, 'Educational Needs Assessment Relating to Cham and Migrant Children in Kampong Cham Province', KAPE, Cambodia, 2007.
- Leang, P., 'Baseline Study on Corporal Punishment in School, Summary Report', Plan International, Cambodia, 2012.
- Ministry of Education, Youth and Sport and Skolinspektionen, 'Concept of Quality Assurance in pre-school and General Education in Cambodia', 2013.
- Srinivasa M., 'Cambodia's Skill Gap: An Anatomy of Issues and Policy Options', Cambodia Development Resource Institute, Working Paper Series No. 98, 2014.
- Suguru M., Shares and Numbers of Out-Of-School Children, UNESCO Asia and Pacific Regional Bureau for Education, 2010.

- Ministry of Education, Youth and Sport, Education Strategic Plan 2014-2018, MoEYS, Cambodia, 2014.
- Ministry of Education, Youth and Sport, '2013/14 Public School Education Statistics Cambodia', MoEYS, Cambodia, 2014.
- Ministry of Education, Youth and Sport, 2015a, 'Summary of EGMA Results for Grades 1, 2, 3 and 6, Cambodia', Presentation to Steering Committee, MoEYS, Cambodia, 29 December 2015.
- Ministry of Education, Youth and Sport, 2015b, 'Results of Grade 6 Student Achievement from the National Assessment in 2013', MoEYS, Cambodia, December 2015.
- Ministry of Education, Youth and Sport, 2016a, 'Results of Grade 3 Student Achievement from the National Assessment in 2015', MoEYS, Cambodia, May 2016.
- Ministry of Education, Youth and Sport, 2016b, 'Results of Grade 8 Student Achievement from the National Assessment in 2014', MoEYS, Cambodia, April 2016.
- Ministry of Planning, Report on Migration in Cambodia: Report of the Cambodian Rural Urban Migration Project (CRUMP), MoP, Cambodia, 2012.
- Ministry of Planning, Annual Progress Report on Achieving the Millennium Development Goals 2013, MoP, Cambodia, 2013.
- Ministry of Planning/National Institute of Statistics, 'Analysis of Children's Access to Education (based on Population Census Data, 2008)', MoP/NIS, Cambodia, 2014.
- Ministry of Planning/National Institute of Statistics, 'Analysis of Children's Access to Education in Cambodia Based on General Population Census of Cambodia 2008', MoP/NIS, Cambodia, 2011.
- Ministry of Planning/National Institute of Statistics, 'Cambodia Inter-Censal Population Survey 2013: Analysis of CIPS Results Report 5: Disability', <<http://countryoffice.unfpa.org/cambodia/drive/Disability26Dec2013.pdf>>, accessed 11 November 2015.
- Ministry of Planning and International Labour Organization, 'Cambodia Labour Force and Child Labour Survey 2012', MoP/ILO, Cambodia, 2013.
- Murnane, R. J. and A. J. Ganimian, 'Improving Educational Outcomes in Developing Countries: Lessons from Rigorous Evaluations', Working Paper 20284, National Bureau of Economic Research, Cambridge, 2014.
- National Road Safety Committee, 'Cambodia Road Crash and Victim Information System – Annual Report 2014', <https://docs.google.com/a/servingweb.com/viewer?url=nrsc.gov.kh/items/RCVIS_Annual_Report_2014_Full_Version__ENG_draft.pdf>, accessed 4 August 2016.
- NGO Education Partnership, Assessing the Impact of Incentives on Teacher Motivation, NEP, Cambodia, 2012.
- NGO Education Partnership, Right to Education in Cambodia – Community Level Research, NEP, Cambodia, 2014, <[www.nepcambodia.org/nepcambodia/members/upload/file/Right per cent20to per cent20Education per cent20in per cent20Cambodia per cent20Report1.pdf](http://www.nepcambodia.org/nepcambodia/members/upload/file/Right%20per%20cent%20Education%20in%20per%20cent%20Cambodia%20Report1.pdf)>, accessed 5 August 2016.
- NGO Education Partnership, Teaching Hours in Primary Schools in Cambodia, NEP, Phnom Penh, 2015.
- No, F. School Drop out at Basic Education Level in Rural Cambodia: A Longitudinal Study, Dissertation, Hiroshima University, 2012.

- Pinnock, H., *Language and Education: The Missing Link*, CfBT Education Trust, Reading, 2009.
- RTI International, *Data for Education Programming in Asia and Middle East Assessment of Early Grade Reading in the Education Sector in Cambodia*, Draft, 2015.
- Song, S., 'Cambodian Teachers' Responses to Child-Centered Instructional Policies: A Mismatch Between Beliefs and Practices', *Teaching and Teacher Education*, vol. 50, August 2015, pp. 36–45.
- The Alliance for Safe Children, Michael Linnan, Tracie Reinten and Jing Rui Wei, *Technical Report on Child Injury in Cambodia - A Final Report to UNICEF Cambodia on The Cambodia Accident and Injury Survey, 2007*. The Alliance for Safe Children (TASC), Thailand, c2009. <www.unicef.org/cambodia/Cambodia_Accident_and_Injury_Survey_Technical_Child_Injury_Report_2007_Part1.pdf>, accessed 4 August 2016.
- The National Scientific Council on the Developing Child, *Persistent Fear and Anxiety Can Affect Young Children's Learning and Development*, Harvard University, 2010. <<http://developingchild.harvard.edu/wp-content/uploads/2010/05/Persistent-Fear-and-Anxiety-Can-Affect-Young-Childrens-Learning-and-Development.pdf>>, accessed 4 August 2016.
- Thomas, M. and N. Burnett, *The Economic Cost of Out-Of-School Children in Southeast Asia*, Paris, UNESCO, 2015.
- UNESCO Institute for Statistics, *Children Out of School: Measuring Exclusion from Primary Education*, UNESCO, Paris, 2005.
- UNESCO, Korean Women's Development Institute, *A Complex Formula: Women and Girls in Science, Technology, Engineering and Mathematics in Asia*, UNESCO, Bangkok, 2015.
- L. Ung, B. Oung and P. Tep, *Draft Study on School Financing and Planning Mechanisms for Good Governance*, Phnom Penh, 2016.
- United Nations, *Protecting Children From Traffic Injuries and Improving their Urban Environment*, Division for Sustainable Development, United Nations Department of Economic and Social Affairs (DSD/DESA), 2016, <<https://sustainabledevelopment.un.org/partnership/?p=472>>, accessed 4 August 2016.
- United Nations Children's Fund, *Analysis of Out-of-School Children, CDHS 2000 and 2005*, UNICEF, Cambodia, 2008.
- United Nations Children's Fund, *Findings from Cambodia's Violence against Children Survey 2013*, UNICEF, Cambodia, 2014, <www.unicef.org/cambodia/UNICEF_VAC_Full_Report_English.pdf> accessed 24 November 2015.
- United Nations Children's Fund, 'PRESET Analysis of Education Personnel Based on HRMIS Data, 2012–2013', UNICEF, Cambodia, 2014.
- United Nations Children's Fund, *How do Cambodian School Girls Manage their Menstruation in Schools? Gaps and Solutions*, UNICEF, Cambodia, 2015.
- United States Agency for International Development, 2011a, *School Drop out Prevention Pilot Program, Drop out Trend Analysis*, Cambodia, USAID, Cambodia, 2011.
- United States Agency for International Development, 2011b, *School Drop out Prevention Pilot Program, Inventory of Policies and Programs Related to Drop outs in Cambodia*, USAID, Cambodia, 2011.

- United States Agency for International Development, School Drop out Prevention Pilot Program, Situational Analysis: Findings on Drop out from Battambang, Pursat, and Banteay Meanchey Provinces, USAID, Cambodia, 2011.
- K. Vicheanon and C. Sitha, 'Road Safety Education for Primary Education Children in Cambodia – Evaluation Report, Handicap International, Phnom Penh, 2008.
- Watt, D. and H. Roessingh, 'Some You Win, Most You Lose: Tracking ESL Drop Out In High School (1988-1993)', English Quarterly, vol. 26, no. 3, 1994, pp. 5-7.
- World Bank, Educating the Next Generation: Improving Teacher Quality in Cambodia, World Bank, Phnom Penh, 2014.
- World Bank and World Health Organization, World Report on Disability, World Bank and World Health Organisation, Malta, 2011, <www.who.int/disabilities/world_report/2011/report.pdf>

