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BRIEFING NOTE

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A Brief Review of the Progress of the Education Sector in Cambodia and Singapore

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1. Introduction

This report has been prepared in response to a request from Commission 7 of the Cambodian Senate on 27 June 2017. Its purpose is to track the progress made in the education sector of Cambodia in comparison with the experience of Singapore. The scope of this paper covers only the development of secondary education at both lower and higher levels. The review is based entirely on available data and statistics. In both cases, the World Development Indicators have been used to generate outcomes for some important education indicators. In respect of Cambodian education, the data has been acquired from various sources including education statistics and indicators and the report from the Education Congress 2017. The profile of secondary education of Singapore has been derived mainly from available statistics from the Ministry of Education in Singapore. Due to the limitation of the data, the comparison has not covered the same years for both countries.

Following the introduction, the development context of Cambodia and Singapore are described, providing the background for the discussion of the development of secondary education of the respective countries (Section 3 and 4), with section 5 providing the conclusion.

2. Context

Cambodia is a country situated on the mainland of Southeast Asia bordering Thailand, Vietnam and Lao PDR. The country has a total area of 181,035 km² with a population of 14.7 million people. The population growth rate is 1.46 percent per annum. Singapore covers a total area of 719.2 km² with a population of 5.6 million and a slightly lower population growth rate

compared with Cambodia. The two countries are both members of ASEAN. Table 1 summarizes some important development indicators of the two countries. Despite being a small country, Singapore possesses a huge economy. Its scale in 2016 was more than USD 294 billion with an average annual growth rate of 1 percent (Table 1).

Although Cambodia has achieved a robust economic growth rate of, on average, 7.1 percent per year, the Cambodian GDP in 2016 was less than USD 17 billion. Cambodia has recently climbed into the lower-middle income country category [1]. Nonetheless, the GDP per capita is only USD 1242 which is almost 50 times smaller than that of Singapore. The higher GDP per capita for Singapore is reflected in higher spending on social services and the affordability of high quality education for Singaporean households.

Table 1 Key development indicators for Cambodia and Singapore

| Features | Cambodia | Singapore |
|--------------------------------|-----------------|----------------|
| Total Area | 181,035SqKm [2] | 719.2 SqKm [3] |
| Population (2013)* | 14.7Million [2] | 5.6Million [3] |
| Population growth rate | 1.46% [2] | 1.0% [3] |
| Average GDP Growth (2013-2018) | 7.1 [2] | 2.70 (4) |
| GDP per capita | USD 1242 [2] | USD 51855 (5) |
| Human Development Index (2014) | 0.555 [4] | 0.912 [4] |
| Adult Literacy rate | 78.3% [5] | 96.8% [5] |

Sources: Synthesised from NSDP 2014-2018; 2- Human Development Report 2015; 3- Education for All 2015 National Review; <http://www.singstat.gov.sg/statistics/latest-data#16>; 5-<https://tradingeconomics.com/singapore/gdp-growth>

The difference in the level of GDP explains the difference in the respective governments' ability to spend on the education sector. Figures 1 and 2

illustrate the government expenditures on the education sector shown as a percentage of GDP and total government expenditure, tracking progress during the years 2000 to 2013. Cambodia spent around 1.6 percent of GDP on the education sector over the bulk of that period, then the budget allocation increased to 2 percent in 2013. Expenditure on education in Singapore saw a slight reduction from 3.3 percent of GDP in the year 2000 to 3.0 percent in 2007 and further down to 2.9 percent in 2013 (Fig.1). However, this does not mean that budget expenditure on education in Singapore had been reduced. In fact, the Singapore government has gradually increased spending on the sector from 18.3 percent of total government expenditure in 2000 to around 20 percent for both 2007 and 2013. In contrast, the Cambodian budget allocation for the education sector appears to have dropped from 11.1 percent in the year 2000 to around 10 percent in 2013 (Fig. 2).

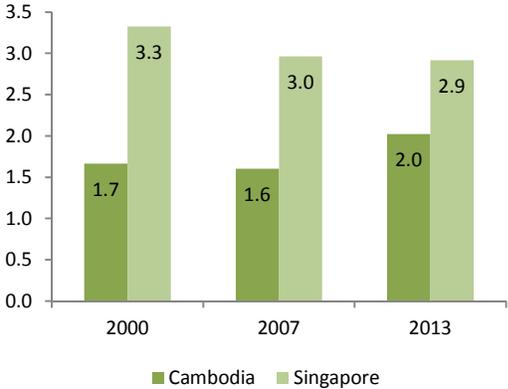


Figure 1 Government expenditure on education, total (% of GDP)
 Source: World Development Indicators 2016

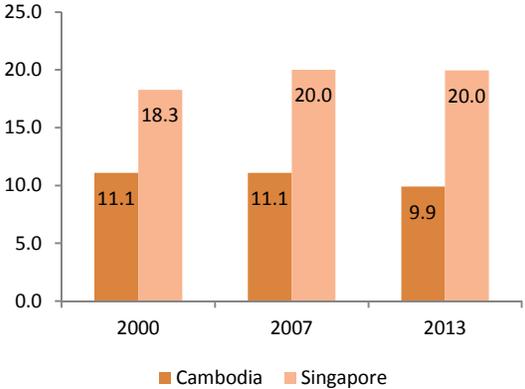


Figure 2 Government expenditure on education, total (% of government expenditure)
 Source: World Development Indicators 2016

The more significant spending on education in Singapore reflects the greater investment and modernization in the country's education infrastructure. This partly explains two development outcomes: (1) Singapore has a much

higher score in the Human Development Index (0.912) compared with a less developed country such as Cambodia (HDI=0.555); and (2) The higher adult literacy rate among the Singaporean population (Table 1). As also shown in Table 1, the adult literacy rate in Cambodia was 67.3 percent in 1998 and climbed to 78.3 percent in 2015¹. [5] In Singapore the percentage was higher (92.5 percent in 2000 and 96.8 percent in 2015). The details of the progress made in secondary education in both countries are discussed in the subsequent sections.

3. Progress in Lower Secondary Education

The comparative progress made in the lower secondary education sectors of Cambodia and Singapore are provided in Tables 2 and 3, respectively. Seven key development indicators were selected for comparison: (1) Gross enrolment rate; (2) Net enrolment rate; (3) Repetition rate; (4) Dropout rate; (5) Completion rate; (6) Pupil-teacher ratio; and (7) Transition rate.

Gross school enrolment for secondary education in Cambodia in 1999 was 16.5 percent and 14.8 percent for net enrolment (World Bank 2016). The ratio climbed to 58.5 percent in the year 2011 followed by a slight drop to 53.8 percent in 2016 before rising again to 57.6 percent in 2016. This means that, regardless of age, more than half of the Cambodian population now have access to lower secondary education. There was no data for the net enrolment rate in lower secondary education. However, the World Development Indicators show a steady increase in the net enrolment rate for the whole of secondary education from less than 15 percent in 1999 to 32.1 percent in 2005, and 38.2 percent in 2008. The latest available statistics show that, in 2011, the net enrolment rate for lower secondary school was

¹ The NSDP 2014-2018 stated that the literacy rate among population age between 15-45 was 89.15 percent in 2016

35 percent (Table 2). The repetition rate was around 2 percent, and that appears constant throughout the period. The dropout rate was around 20 percent, meaning that 2 in 10 students in lower secondary education chose to abandon their studies before completion of the level. However, steady progress was made, boosting the transition rate from lower secondary to higher secondary education from 80 percent in 2011 to around 85 percent in 2016. Despite an increase in the number of teachers in Cambodia, the pupil-teacher ratio increased from 16.6 in 1998 to 21.3 in 2016. This might reflect the increased number of students enrolled at this education level.

Table 2: Progress made in lower secondary education in Cambodia

| Indicators- | Lower Secondary Education | | | |
|------------------------|---------------------------|-----------|-----------|-----------|
| | 2010-2011 | 2014-2015 | 2015-2016 | 2016-2017 |
| Gross Enrolment rate % | 58.5 | N/A | 53.8 | 57.6 |
| Net Enrolment rate % | 35 | N/A | N/A | N/A |
| Repetition rate | 2.1 | 2.2 | 2.5 | N/A |
| Dropout rate | 19.6 | 21 | 19.2 | N/A |
| Completion rate | 46.8 | N/A | 39.23 | 42.6 |
| Pupil-teacher ratio | 22.1 | N/A | 19.7 | 21.3 |
| Transition rate | 80.2 | 82.1 | 85.5 | N/A |

Sources: Combined and Gross Enrolment Ratio for Primary, Secondary and Tertiary Education[6].

There has been no data to indicate the gross enrolment rate for lower secondary education in Singapore. The net enrolment at this education level varied between 98 and more than 99 percent over the period 2010 to 2016 (Table 3). This implies that almost every Singaporean child who belongs to the age group for lower secondary education has accessed education at this level. Singapore has also had a much lower pupil-teacher ratio compared with Cambodia, dropping from 16.1 in 2010 to 12.12 in 2015. There has

been no data in the other education indexes such as repetition rate, dropout rate, completion rate and transition rate. Hence, a comparison with Cambodia in these areas has not been possible. However, the World Development Indicators suggest that, in 2008, the percentage of the population who finished at least lower secondary education was 73 percent for Singapore and less than 17 percent for Cambodia.

Table 3: Progress made in lower secondary education in Singapore

| Indicators | Lower Secondary | | | | | | |
|--------------------------|-----------------|-------|-------|-------|-------|-------|------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Gross enrolment rate (%) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Net enrolment rate (%) | 98.30 | 98.80 | 98.80 | 99.30 | 99.50 | 99.50 | N/A |
| Repetition rate (%) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dropout rate | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Completion rate | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Pupil-teacher ratio | 16.1 | 14.8 | 13.9 | 13.2 | 12.5 | 12.12 | N/A |
| Transition rate | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Source: Combined and Gross Enrolment Ratio for Primary, Secondary and Tertiary Education. Ministry of Education Singapore [6]

4. Progress in Higher Secondary Education

This section provides a comparison of progress made in higher secondary education in Cambodia and Singapore. All seven educational indexes mentioned in Section 3 were used. Gross enrolment rate in Cambodia in 2010 was 33 percent and dropped to around 25 percent for both 2015 and 2016, while net enrolment rate was just about 20 percent. The low completion rate at lower secondary level could be among the reasons for this

low enrolment rate in higher secondary education. The repetition rates were somewhat similar to those at the lower secondary education level, varying between 2 to 3 percent over the period 2010 to 2017. However, dropout rates reached their peak in 2014 when more than 27 percent of higher secondary students abandoned school. The statistics also show that less than half of the students who attended higher secondary school were able to complete their education (Table 4).

Table 4: Progress made in higher secondary education in Cambodia

| Indicators | Higher Secondary Education | | | |
|----------------------|----------------------------|-----------|-----------|-----------|
| | 2010-2011 | 2014-2015 | 2015-2016 | 2016-2017 |
| Gross Enrolment rate | 32.9 | N/A | 24.3 | 26.5 |
| Net Enrolment rate | 20.6 | N/A | N/A | N/A |
| Repetition rate | 1.8 | 3.2 | 2.8 | N/A |
| Dropout rate | 11.8 | 27.5 | 23.8 | N/A |
| Completion rate | 28.5 | N/A | 19.4 | N/A |
| Pupil-teacher ratio | 33.3 | N/A | 21.2 | 20.7 |
| Transition rate | 71.6 | 72.4 | 74.6 | N/A |

Sources: synthesized from Education statistics and indicators 2010-2011[7], Education statistics and indicators 2015-2016[8], Education Congress 2017[9]

There was a huge deficit of data relating to progress made in higher secondary education in Singapore for the indicators of net enrolment rate, repetition rate, dropout rate, pupil-teacher ratio and transition rate (Table 5). Gross enrolment rate for higher secondary education in Singapore varied between around 70 to 90 percent in the years 2010 to 2012 – which is about three times higher than the gross enrolment rate in the respective education level in Cambodia. Almost every student enrolled in higher secondary education across Singapore completed their studies, showing the significant achievement at that education level.

Table 5: Progress made in higher secondary education in Singapore

| Indicators | Higher Secondary Education | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Gross enrolment rate | 73.5 | 78.5 | 87.5 | N.A | N.A | N.A | N.A |
| Net enrolment rate | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| Repetition rate | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| Dropout rate | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| Completion rate | 97.3 | 97.4 | 97.6 | 97.5 | 97.6 | 98.3 | N/A |
| Pupil-teacher ratio | N.A | N.A | N.A | N.A | N.A | N.A | N.A |
| Transition rate | N.A | N.A | N.A | N.A | N.A | N.A | N.A |

Source: Combined and Gross Enrolment Ratio for Primary, Secondary and Tertiary Education. (Ministry of Education Singapore), see also Education Statistic Digest of Singapore 2015[6]

5. Conclusion

Given the limitation in time, this review looks only at limited aspects of education sector development in Cambodia and Singapore, particularly highlighting progress in secondary education. Some important aspects, such as the review on existing policies, and the challenges facing education sectors, were not included for the same reason. This therefore limits the comprehensiveness of the discussion and analysis of the overall progress made by the education sectors of the two countries. In addition, the lack of data, especially relating to the development of the Singaporean education sector, makes it difficult to compare the two countries.

The aim of the education policy of Cambodia is to achieve complete basic education (9th grade) for all, [10] while the emphasis in Singapore is more on quality of education.[6] The available statistics confirm that Singapore has a more advanced education system. This is evidenced by the country's

stronger performance in the Human Development Index and the significantly higher adult literacy rate and high net enrolment rate. The contributing factors could be; (1) the greater budget allocation for the education sector made by the Singapore government and, (2) the higher GDP per capita sum that allows Singaporean households to afford good quality education. The analyses also considered the factors hampering progress in the Cambodian education sector including, among others: (1) the smaller Cambodian economy and limitations in budget allocated for the education sector, (2) prolonged war and, (3) rural poverty. Despite the progress that has been made, the statistics still show low enrolment rates as well as high dropout rates among students. This implies the need to scale-up the current budget expenditure on education, making it more affordable and more inclusive through expansion of the existing program such as scholarships for poor students.

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