



Training of Trainers on Briefing Note Writing

Research Paper

Education and Skills Development for the Future Workforce in Cambodia

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Summary

This research paper examines the progress and challenges of Cambodia's education and skills development sector, focusing on lower secondary, upper secondary, higher education, and vocational training. In recent years, significant progress has been observed across all levels of education, with improvements in gross enrollment and completion rates. For instance, lower secondary education saw gross enrollment rates rise from 59.9% in 2019–2020 to 68.6% in 2021–2022, while completion rates increased from 47.3% to 59.7%. Higher secondary education completion rates improved to 55.5% by 2021–2022, and STEM enrollment in higher education rose from 19.6% in 2013–2014 to 31.2% in 2022–2023. Similarly, vocational training graduation rates showed upward trends, reaching 53,723 graduates in 2021–2022. However, challenges such as high dropout rates, rural-urban disparities, and skills mismatches remain significant barriers to equitable and quality education.

To address these challenges, the report emphasizes the need for targeted policy interventions, including increasing public funding for education, improving rural education infrastructure, and aligning curricula with workforce demands. The Cambodian government has made strides through initiatives like the Pentagon Strategy Phase I, the Education Strategic Plan 2024–2028, and *TVET Policy* which prioritize STEM education, vocational training, and human resource development. Nevertheless, sustained investment and policy refinement are essential to build an inclusive, high-quality education system that supports the country's economic growth and prepares its workforce for future demands.

1. Introduction

Education and skills development are key drivers of economic growth, social development, and reducing inequality [1]. They provide individuals with the knowledge and skills needed to access decent jobs and contribute to society. In developing countries, where challenges such as limited resources and high unemployment persist, education and skill-building are crucial for overcoming poverty and achieving long-term development goals[2]. Hence, building human capital through investing in education is vital to ensure the country's development [6].

Cambodia has recognized the importance of education and skills in fostering sustainable growth, prioritizing areas like technology, digital literacy, and STEM[3,4]. However, despite improvement efforts, the proportion of labor force possessing advanced education declined, from 82% in 2020 to 79% in 2021, showing the need for continued investment in human capital[5]. Cambodia faces challenges in education quality, equitable access, and skill mismatches [7]. Policies such as the *Pentagon Strategy Phase I* and the *Education Strategic Plan 2024–2028* emphasize human resource development through improved education quality, increased access to secondary and tertiary education, and the integration of STEM education to align with workforce needs. Additionally, the *National Employment Policy (NEP)* seeks to enhance skills development and labor market governance, while the *Teacher Development Policy* focuses on improving teaching quality, particularly in underserved areas. The TVET policy addresses these by fostering market-relevant skills and reducing unemployment, making a research review essential to assess progress and refine strategies for the future workforce.

This paper highlights the trends of education and skills development in Cambodia focusing on the progress in lower and upper secondary, higher education and vocational training. The review also identifies challenges and opportunities, and examines government policies on education and skill development. The research questions are as follow:

- What is the status of education and skill development in Cambodia?
- What are the main challenges and opportunities in Cambodia's education and skills sector?
- What government policies are in place to support education and skill development in Cambodia

This review draws contextual information, data, and statistics from a range of reliable sources, including government policies such as the *Pentagon Strategy Phase I (2023)*, *Education Strategic Plan 2024-2028*, *National Strategic Development Plan 2019-2023*, and *Digital Policy Cambodia 2022-2035*. It also incorporates studies by the World Bank, Asian Development Bank, and International Labour Organization, as well as education statistics, indicators, and publications like the *Cambodian Journal of Educational Research* and TVETMIS reports.

Following the Introduction (Section 1), the Status of Education and Skills Development in Cambodia is presented in Section 2, which examines the progress made in key areas: Lower Secondary Education, Upper Secondary Education, Higher Education, and Vocational Training. Section 3 highlights the Challenges and Opportunities in the Education and Skills Sector in Cambodia, identifying critical issues and areas for improvement. Section 4 summarizes the Government Policies Supporting Education and Skills Development, focusing on strategies and initiatives to enhance the sector. Finally, Section 5 provides the Conclusion, summarizing key findings and policy options.

2. Status of Education and Skills Development in Cambodia

2.1. Progress in Lower Secondary Education

This section outlines the progress of lower secondary education in Cambodia. Table 1 highlights the key indicators, which include: (1) Gross enrollment rate, (2) Repetition rate, (3) Dropout rate, and (4) Completion rate.

Table 1: Progress made in lower secondary education in Cambodia

Indicators (%)	Lower Secondary Education			
	2019-2020	2020-2021	2021-2022	2022-2023
Gross Enrolment rate	59.9	60.7	68.6	64.8
Repetition rate	0.3	1.2	2.0	N/A
Dropout rate	18.6	18.2	16.6	18.2
Completion rate	47.3	48.1	56.5	59.7

Source: Ministry of Education, Youth, and Sports. (2023). *Strategic Plan 2024-2028: Advancing Education for Inclusive and Sustainable Development*. Phnom Penh, Cambodia.

Gross school enrollment for secondary education in Cambodia has grown significantly, rising from 16.5% in 1999 to 68.6% in 2021-2022, before slightly declining to 64.8% in 2022-2023. While access has improved, rural-urban disparities persist, with rural students

facing greater challenges in accessing education [7]. Repetition and dropout rates reflect ongoing quality issues [14], with the repetition rate increasing from 0.3% in 2019-2020 to 2.0% in 2021-2022, and dropout rates rising to 18.2% in 2022-2023, particularly affecting rural areas [18]. Despite this, the completion rate improved to 59.7% in 2022-2023, signaling progress in retaining students.

2.2. Progress in Upper Secondary Education

The progress of education at upper secondary level is summarized in table 2. The GER fluctuated over time, starting at 32.9% in 2010-2011, declining to 26.5% in 2016-2017, before rebounding to 36.6% in 2021-2022. This reflects the improved access to education stemming from increased government investment in educational infrastructure, teacher training programs, and initiatives aimed at reducing rural-urban disparities [1,14]. The repetition rate showed significant improvement, decreasing from 1.8% in 2010-2011 to 0.4% in 2021-2022. The dropout rate increased from 11.8% in 2010-2011 to 29.8% in 2021-2022 [19]. Meanwhile, the overall completion rate rose markedly, from 28.5% in 2010-2011 to 55.5% in 2021-2022, demonstrating progress in retaining students through to graduation. The BAC-II examination reform, implemented by the Ministry of Education, Youth and Sport (MoEYS), enhanced the rigor and integrity of Cambodia's high school exit exams, improving student performance, teaching quality, and public confidence in the education system [20].

Table 2: Progress made in Higher Education in Cambodia

Indicators (%)	Higher Secondary Education		
	2010-2011	2016-2017	2021-2022
Gross Enrolment rate	32.9	26.5	36.6
Repetition rate	1.8	N/A	0.4
Dropout rate	11.8	N/A	29.8
Completion rate	28.5	N/A	55.5

Source: synthesized from Education statistics and indicators 2010-2011, [Education statistics and indicators 2015-2016](#), [Education statistics and indicators 2021-2022](#)

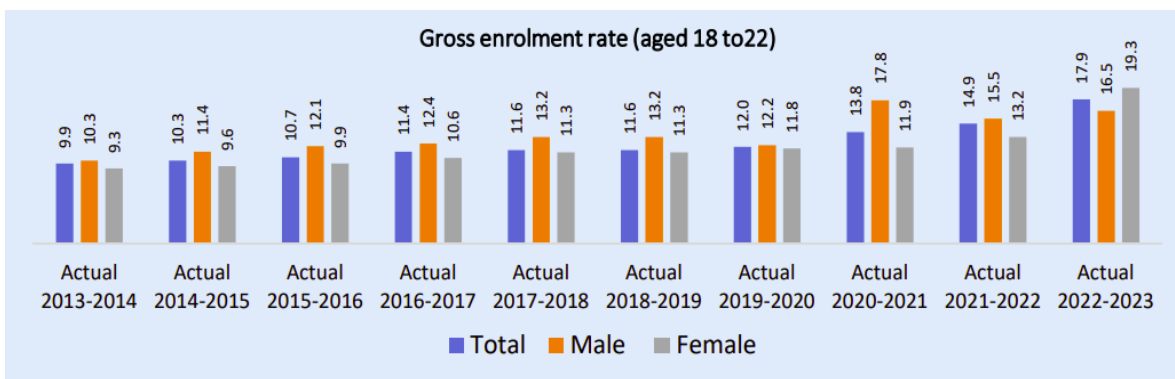
2.3. Progress in Higher Education

Since the late 1990s, Cambodia's higher education landscape has transformed significantly, with the number of higher education institutions (HEIs) increasing from 9 in 1997 to 130 by 2022 [9]. This section highlights progress in higher education, focusing on gross enrollment rates and enrollment figures for bachelor's, master's, and PhD

programs. The gross enrollment rate in Cambodian higher education for individuals aged 18 to 22 increased from 9.9% in 2013-2014 to 17.9% in 2022-2023 thanks largely to the open market economy and the privatization of the institutions [21] (Figure 1). In master's degree programs, the total number of students decreased from 18,010 in 2013-2014 to 13,008 in 2022-2023. For doctoral programs, total enrollment increased from 1,181 students in 2013-2014 to 1,330 in 2021-2022 [14].

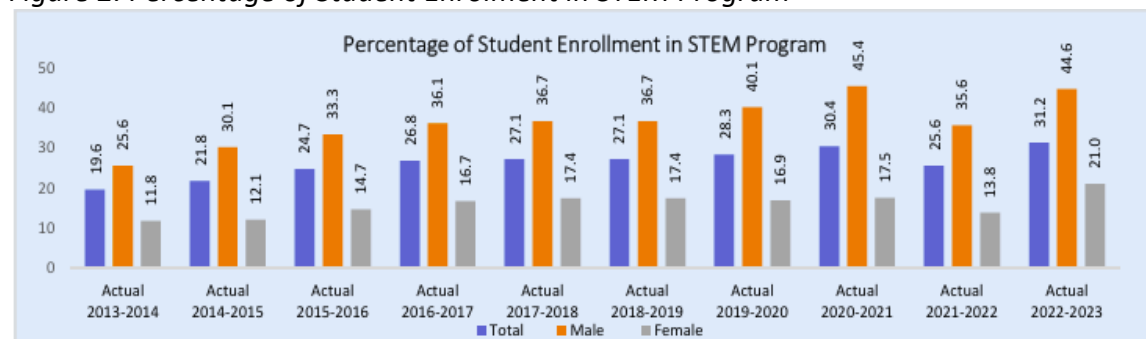
Enrollment in STEM programs is on the rise, with the percentage of students enrolling in STEM bachelor's degree programs growing from 19.6% in 2013-2014 to 31.2% in 2022-2023, reflecting increasing interest in technical and scientific fields. This growth highlights progress in aligning higher education with global trends and workforce demands [14]. However, non-STEM fields such as business, accounting, finance, and English studies continue to dominate Cambodia's higher education landscape, attracting a significant majority of students. Social sciences, arts, and humanities remain popular disciplines, reflecting long-standing preferences among students [1].

Figure 1: Gross Enrolment rate in higher education (aged 18 to 22) 2013-2014 to 2022-2023



Source: Ministry of Education, Youth, and Sports. (2023). *Strategic Plan 2024-2028: Advancing Education for Inclusive and Sustainable Development*. Phnom Penh, Cambodia.

Figure 2: Percentage of Student Enrolment in STEM Program



Source: Ministry of Education, Youth, and Sports. (2023). *Strategic Plan 2024-2028: Advancing Education for Inclusive and Sustainable Development*. Phnom Penh, Cambodia.

2.4. Progress in Vocational Training

This section outlines Cambodia's progress in Technical and Vocational Education and Training (TVET) from 2019 to 2022. Enrollment numbers decreased from 72,550 in 2019–2020 to 59,885 in 2021–2022 (Table 3). Dropout rates reached their highest at 4,045 in 2020–2021, likely influenced by the COVID-19 pandemic, but declined to 2,930 in 2021–2022. On a positive note, graduation rates improved significantly from 48,803 in 2020–2021 to 53,723 in 2021–2022, demonstrating advancements in retention and completion. The number of institutes remained stable at 60 for most of the period, slightly dropping to 59 in 2021–2022. While progress has been made in enhancing graduation rates, challenges persist in increasing enrollment and reducing dropout rates (Table 3).

Table 3: Progress made in Vocational Training in Cambodia

Indicators	Vocational Training		
	2019-2020	2020-2021	2021-2022
Numbers of Enrolments	72,550	72,412	59,885
Number of Dropouts	2,225	4,045	2,930
Number of Graduations	51,251	48,803	53,723
Number of Institutes	60	60	59

Sources: Synthesized from TVET Statistics 2019-2020, TVET Statistics 2020-2021, TVET Statistics 2021-2022 (Ministry of Labour and Vocational Training); <https://www.tvetmis.gov.kh/live/sites/default/files/2023-05/Statistic%20Book%202022.pdf>

The Cambodian government has implemented various skill training programs through its TVET system to enhance workforce competencies and meet labor market demands. As of 2020-2021, 55 public institutions, including Provincial and Regional Training Centers, offered training in fields such as agriculture, construction, motor repairs, and food processing [13].

3.Challenges and Opportunities in the Education and Skills Sector in Cambodia

Cambodia faces several challenges in its education and skills sector:

- **Quality of Education** Despite increased access to education in Cambodia, quality challenges persist across all levels. The increase of repetition and dropout rate in lower-secondary education is among the evidences. Quality of education for upper-secondary school have been undermined by the lack of teaching and learning resources and quality of the teachers [22]. Despite a rising Gross

Enrollment Rate (GER), the quality of tertiary education remains constrained by systemic challenges, including limited resources and infrastructure, political interference in academia, weak institutional and sector-wide governance, growing commercialization of higher education institutions, low faculty salaries, and insufficient opportunities for continuing professional development [6] [23].

- **Skills Mismatch:** There are two main reasons explaining skills mismatches. First are insufficient skills and knowledge that the students possess after graduation to meet the requirements of the job market. Second, they graduate with majors that are not needed or in demand by the private sector/industry needed to boost growth and productivity [22]. STEM program enrollment, for example, in higher education has increased—from 19.6% in 2013-2014 to 31.2% in 2022-2023, but this growth still falls short of adequately meeting the market's need for technical and scientific expertise. This reflects a broader misalignment between educational offerings and the skills required in the labor market, underscoring the need for better-targeted training programs and curriculum development to bridge these gaps [9]. Many university graduates in Cambodia face high unemployment due to a significant mismatch between their fields of study and the skills demanded by the labor market, leaving them inadequately prepared for available job opportunities [21].
- **Rural-Urban Disparities:** Rural students face significant challenges in accessing education, reflected in higher dropout rates compared to their urban counterparts, highlighting unequal opportunities based on geographic location. Although gross enrollment rates for secondary education have improved, rural students remain disproportionately affected by barriers to entry and completion, emphasizing the persistent educational inequities between rural and urban areas [8].
- **Funding, and Resource Allocation:** Resource allocation is another challenge despite the gradual increase in funding for the education sector over the last decades. Lack of operational funding means schools face shortages of resources and supplies for their operation which effects the overall quality of delivery [22]. While the 2024 National Budget prioritizes education, with significant spending directed to the sector, funding levels remain inadequate to address barriers to access and quality effectively. Public financing for higher education, constituting less than 10% of overall spending over the past decade, has led to reliance on private tuition fees, raising concerns about equity and affordability [15]. In 2024, the budget allocated for education was 4.05 trillion Riel (around USD 900 million),

with 146.6 billion riel (about USD 36 million) dedicated to vocational and technical training programs for young people from poor and vulnerable families.

Despite these challenges, there are promising opportunities:

- **Improved Retention and Transition Rates:** Cambodia has made progress in retaining students at the secondary level. These achievements provide a foundation for enhancing the transition of students to higher education, particularly if resources are allocated effectively to reduce dropout rates [14].
- **Expansion of Higher Education Institutions:** The number of higher education institutions in Cambodia has grown significantly. This expansion opens more opportunities for students to access tertiary education and diversify their skill sets, addressing workforce demands [10].
- **Growing Enrollment in STEM Programs:** Enrollment in STEM programs at the bachelor's level has increased. This reflects an increasing interest in technical and scientific disciplines, which are critical for economic development and innovation in Cambodia [14].
- **Government Policy Support and Budget Allocation:** The government has prioritized the development of the education sector through increase resource allocation. These allocations aim to enhance infrastructure, improve training programs, and increase access for marginalized groups, providing a robust framework to address skill mismatches and strengthen workforce readiness [16,17].

4. Government Policies Supporting Education and Skills Development

The Royal Government of Cambodia has implemented various policies to address these issues:

- **Pentagon Strategy Phase I:** Positioned as a cornerstone of Cambodia's economic transformation, this strategy prioritizes human resource development through three key pillars: (1) enhancing education quality, (2) expanding secondary and tertiary education enrollment rates, and (3) strengthening Technical and Vocational Education and Training (TVET) to align workforce skills with market demands [7,8].
- **National Employment Policy (NEP):** Introduced in 2015, the NEP aims to create decent jobs, enhance skills, and improve labor market governance. It also prioritizes

reducing unemployment through targeted skills development initiatives [7].

- **Teacher Development Policy:** This policy seeks to address gaps in teaching quality by improving training programs and offering incentives for teachers in underserved areas [7].
- **TVET Promotion:** Efforts include expanding training centers, improving curricula to align with market demands, and fostering partnerships with the private sector [6].
- **STEM Integration Policies:** Specific policies are aimed at scaling up STEM education. This includes funding for research projects in science and engineering, scholarships for STEM students, and collaborations with international institutions to bring global expertise to Cambodia [8].

5. Conclusion

This paper provides an overview of the progress made in Cambodia's education and skills development. This review does not cover all aspects, such as in-depth analysis of specific regional disparities or the long-term impacts of government policies.

The education policy of Cambodia focuses on improving access to and completion of secondary education while aligning skills development with workforce demands. Gross enrollment and completion rates have improved across all levels of education, and notable strides have been made in STEM and TVET enrollment. However, dropout rates remain high, particularly in rural areas, reflecting ongoing challenges in equity and retention]. Additionally, skills mismatches between education outcomes and workforce demands underscore the need to enhance education quality and relevance to better prepare students for future opportunities and reduce inequities.

The education sector's development has been hampered by several challenges, including limited public funding for education, insufficient infrastructure in rural areas, and a skills mismatch between education outcomes and labor market needs. Addressing these issues requires scaling up budget allocations, enhancing the quality of teaching and curricula, and expanding targeted programs such as scholarships for underprivileged students and incentives for teachers in underserved areas. Further investment and policy refinement are essential to build a more inclusive and efficient system capable of supporting Cambodia's future workforce and economic growth.

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