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**Social Sciences**  
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# Cambodia's Education Reform

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# **Cambodia's Education Reforms: Imperatives to Improve Quality**

**By**

**Srinivasa Madhur\***

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\* Srinivasa Madhur is an Adjunct Professor at the Faculty of Social Sciences and International Relations at the Pannasastra University of Cambodia, Phnom Penh and a former Senior Director at Asian Development Bank, Manila, Philippines. The views expressed in this paper are entirely those of the author and should not in any way be attributed to the Pannasastra University of Cambodia and/or Asian Development Bank. Moreover, the author would like to confirm that no funding was received to finance the paper from any financing agencies and thus no conflict of interest in any form is involved. The author has also mentioned these ethics-related issues in the letter to the Editor. The contact email of the author is: [srinimadhur@gmail.com](mailto:srinimadhur@gmail.com).

## **Cambodia's Education Reforms: Imperatives to Improve Quality**

### **Key terms**

**Education; skills; quality; adaptation; technology; human capital; political commitment**

### **Abstract**

In 2023, Cambodia received the World Literacy Award 2023 in recognition of its efforts at reforming the education system. That said, strong improvements in the access to education in the country has been offset by declining quality. Further reforms in the country's education system should, therefore, focus on improving the quality of education. There are four key players in making a success of the country's education system: government, teachers, students, and the parents of the students. The government needs to create the basic educational infrastructure that enhances opportunities to study; teachers need to have the skills to teach; the parents have to be willing to pay for better education; and the students should be willing to study. Improving the quality of the Cambodia's education system underscores the need for more qualified teachers, better curriculum, more student involvement in learning, faster adaptation to the new technologies, and of course, finally political commitment.

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# Cambodia's Education Reforms: Imperatives to Improve Quality

## 1. Introduction

In 2023, Cambodia received the World Literacy Award 2023 in recognition of its efforts at reforming the education system to meet the challenges of the 21st century (**Royal Government of Cambodia 2023, August**). It was a proud moment for the country when the country's Education Minister received the award at the World Literacy Summit held on April 2-4 at Oxford University in the United Kingdom. This was a major achievement by Cambodia whose education system had been badly thwarted by the Khmer Rouge regime.

The Chinese Philosopher, Confucius who lived in the 551 to 479 B.C.E, had so aptly put it: "If your plan is for one year plant rice. If your plan is for ten years plant trees. If your plan is for one hundred years, educate children". If one takes a look at Cambodia's education policy since around the mid-1990's, one could notice this basic principle being reflected in it in one way or another.

Even as the country achieved these major milestones, it is also important to take note that: "The moderate progress on educational skills reflects mixed progress, with strong improvements in access to education offset by declining learning outcomes" (World Bank 2023, November, p. 37). "Over the last several years, government across the world have spent increasing amounts on the education sector. However, spending inefficiencies have meant that the increased investment in education has not so far led to large improvements in learning even in countries that have universalized access to basic education." (World Bank 2018b, p,1).

Indeed, in recent years, there has been a global learning crisis and Cambodia is not an exception to that trend. Almost across the world, the number of students obtaining 'education degrees' or 'certificates' is rising but at the same time, students are not learning enough. "The World is not learning: millions of students cannot read, write, or do simple calculations, even after several years of schooling. In many developing countries, the top 25% of students struggle to outperform the OECD's bottom 25%" (Wales, Joseph, 2018 ). In the case of Cambodia, this learning gap has accentuated the already existing schooling gap.

It is estimated that 75% of the teachers were killed during the Khmer Rouge regime (Cayton 1998)). Since around the Paris Peace Agreement, the country has made modest improvements in terms of the commonly used education indicators such as enrollments rates and school completion rates in almost all the subsectors: primary, secondary, and higher education (Madhur and Madhur 2024, 16 January).

Since Cambodia started with a highly adverse initial conditions, its achievements in education reforms could be considered as quite modest. In general, there has been improvements across all the sub-sectors of education. More recently, the Royal Government of Cambodia (RGC), through the Ministry of Education, Youth and Sport (MoEYS), has introduced several projects (e.g., Secondary Education Improvement Project and General Education Improvement Project) to improve the education system (Heng & Sol, 2022; Tao & Kao, 2023). More recently, “education expenditure has gone up in Cambodia with positives including higher spending in provinces and improved teacher salaries” Khmer Times (2024, 5 April).

Yet, recent studies have also highlighted the need for further reforms of the Cambodia’s education sector (Vatana and Chen 2021, 30 April; World Bank 2022: Heng and Song 2023, November; Heng et. al. 2023; Vatana 2023, 30 April; Madhur and Madhur 2024, January). In a similar vein an IMF study had also emphasized that: “Improving human capital to increase productivity and capture higher-value-added production—Rapidly increased elementary school enrollment is encouraging, but the quality of elementary education needs to be lifted. Addressing skill gaps would require work on multiple fronts: vocational and industry-led training, better dissemination of market information on skills shortages, and apprenticeship programs to explore ‘learning by doing’ and ‘learning by earning’” (Internal Monetary Fund, IMF (2016, 16 September, p. 68)

“In spite of the achievements, though, the education system has not been doing so well. Its most significant challenge concerns quality. There is much evidence to suggest that, in general, Cambodian schools are not equipping students sufficiently with the knowledge and skills required to be competitive in the regional and global contexts. The results from well-established national and international assessments show Cambodian students are consistently underperforming against educational standards” (UNICEF 2022, p. 10).

In a similar vein, a 2022 World Bank report highlighted that “Boosting investment in human capital is of utmost importance for the country if it were to achieve its ambitious goal of reaching upper middle-income status by 2030 and a high-income status by 2050 (World Bank, 2022). A more recent World Bank Report highlights that: “Raising learning outcomes is crucial to address skills shortages...Firms are reporting growing skills shortages, and labor productivity growth has declined sharply over the past five years. Few young Cambodian children are being enrolled in early childhood education, which is undermining early development... Primary schools are experiencing a decline in learning outcomes despite improved access. Few students are progressing to secondary school and those that do are often inadequately prepared and experience high dropout rates. Options for post-secondary learning are limited and are of low quality.”(World Bank 2023, November, p. 4)

This paper synthesizes the key findings of existing studies on Cambodia’s education system. Section 2 provides a short back ground for the study. The ensuing sections focus on important aspects of reforms that country will have to address in: primary education (Section 3); secondary education (Section 4); higher education (Sections 5); and technical education and training (section

6). Section 7 provides a summing up of the major findings of the paper. issues and : Being a synthesis paper, this paper does not do its own survey of students, teachers, the managements, or the Government Ministries involved in providing education in Cambodia. That said, it does incorporate the major findings from such surveys done by other studies. Thus, the paper uses secondary data and information that are already publicly available.

## **2. Background**

Two indicators are generally used to assess a government's expenditure on education: (i) education spending as a share of GDP; and (ii) education spending as a share of total government expenditure (World Bank 2018; World Bank 2023, April). "The 2015 Education 2030 Incheon Declaration, which urges countries to allocate at least 4-6% of GDP and/or at least 15-50% of public expenditure to education, while recognizing the diversity of country contexts" (World Bank 2023, April, p. 4).

Cambodia's government expenditure on education steadily rose from a low of 1.3% of GDP in 1995 to 3.0% in 2020, then slowed down to 1.7% in 2021 partly due to the sudden need for spending on managing the Covid-19 outbreak. As a share of government expenditure, the figure hovered around 10.0% in the mid-1950s, rose to 19.0% by 2019 and declined somewhat in the aftermath of the outbreak of Covid-19. In terms of the second indicator, Cambodia is more or less within the Incheon Declaration benchmark but in terms of the first indicator Cambodia has a long way to catch up.

The World Bank then goes on to suggest that in addition to the those conventional measures, it would be useful to look at other indicators such as education spending per school-age-child, as it reveals the unit cost of education provision Cambodia comes out somewhat poorly on these measures. Moreover, there is a huge disparities in both access to education and the learning capacities of children across different regions in the country especially between rural and urban areas (World Bank 2023, April).

Since the mid-1990s, say after the 1993 Paris Peace Agreement, there has been a rapid expansion in the number of education institutions and students enrolled at all levels of education primary, secondary and tertiary (Madhur and Madhur 2024, 16 January). In the next phase of educational reforms, it is increasingly important for the country to meet the labor market demands of a strongly growing middle income country. That indeed underscores the imperatives to improve the quality of education right across all the major segments of education.

As the World Bank emphasized almost two decades ago: "There are large private returns to education in terms of both current labor market outcomes and employment-related outcomes. Labor market outcomes are represented by wages and earnings while employment-related outcomes include paid employment, working in the wage sector, and holding a permanent job.

These returns reflect the scarcity of educated workers at even low-level jobs and highlight the reason why there are such large returns to even primary school completion” (World Bank, 2005, p. 4)

Cambodia’s skill gap has been seen as a sum of two gaps: a schooling gap has been vastly reduced mostly about numbers – low enrollment rates, high dropout rates, and low completion rates --- and a learning gap which is about what the quality of learning after enrolling in schools. Over time, the schooling gap has been vastly reduced across all the three stages of the education system: primary, secondary, and tertiary.

Cambodia’s low human capital index, recently developed by the World Bank, gives the broad order of the magnitude of the learning gap that country suffer from. For example, a student in Cambodia is learning less than 50% of her/his potential (the potential being defined as say, the learning they would have attained if they had good health, nutrition, as well as the normal education standards that are prevalent in most other countries, say, for example the neighboring Thailand or Vietnam (World Bank, 2022).

In terms of proficiency in reading and mathematics, Cambodia at the bottom of the table among its ASEAN peers. Indeed, “international test indicate that Cambodian students are significantly behind their structural peers, and they fall further behind as they progress from primary to secondary schools” (World Bank 2023, November, p. 38). Several factors are behind this poor learning performance, including the shortage of effective teachers and weak governance of the school system, to name a couple (World Bank 2023, November).

In terms of the World Economic Forum’s readiness for future production, Cambodia ranks rather low. In 2018 (the year in which the World Economic Forum published the results), out of 100 countries, Cambodia ranked 81 in terms of the structure of production and 91 in terms of the drivers of production much lower than other ASEAN countries such as such as Indonesia, the Philippines, and Thailand (World Economic Forum, 2018, 38-39). “Cambodia’s low labor productivity can partly be attributed to the particularly low skill level of its labor force. Eighty-five percent of today’s labor force has not completed secondary school, averaging only 6.3 years of education, *and this education is not very good*” (World Bank 2019, November, p.25)

An early assessment of the need for Cambodia’s education reforms for employment and empowerment across wide-ranging issues is available in a 2015 volume published by Cambodia Development Resource Institute in 2015 (Sothy et. al. 2015). More recent analyses of the country’s education system and policy options for improvements are available in a whole host of studies on the subject. This paper attempts to waive through the key findings of these studies.

There are four key players in making a success of a country’s education system: governments, teachers, students, and the parents of the students; what one gets at the end of the educational tunnel depends almost proportionately on these four sets of players. The government needs to create the basis educational infrastructure that enhances opportunities to study for students;

teachers at any level of the education system need to have the skills to teach; the parents have to be ready to pay for better education; and the willingness on the part of students to study. Aligning the interests of these four actors involved in education development is not always easy (World Bank 2018a).

At the launching of the Action Plan for Teacher Policy for 2024-2030 in December 2023, the Education Minister highlighted that “the ministry will continue to develop teachers to improve their professionalism, and as knowledge providers... in order to achieve these goals, the ministry will continue to reform teacher training by improving training programs .... teaching infrastructure will be developed in line with new technologies, libraries and modern facilities, as well as developing leadership and management skills, especially linking theory to the implementation of pedagogical curricula to deliver quality training” (Khmer Times 2023, 13 December). The Action Plan aims to develop the skills and knowledge-base required for teachers to be effective in developing the student skills that are required to the demands of the 21<sup>st</sup> century.

It is encouraging that Singapore’s leading institutes are already collaborating with the Cambodian government on a three-year program that aims to equip local students with the 21<sup>st</sup> century skills (Kihidir 2019). As part of that collaboration, Cambodia has now introduced the concept of New Generational Schools (NGS). These schools are expected to use quality curriculum that focuses on STEM (science, technology, engineering, and mathematics). An effective implementation of this education reforms could help Cambodia to build 21<sup>st</sup> century skills for the local students (Vatana and Chen, 2022, 30 April).

At the same time, under the NGS schooling system, students are enrolled full-time instead of attending shorter shifts as per current practices in Cambodia. It is also important to note that this investment is performance-based. Local schools who participate in the NGS schooling are required to maintain the higher educational standards that are explicitly laid out in the accreditation standards (Vatana and Chen, 2021, 30 April). Encouragingly, RGC’s 2018 Rectangular Strategy is also cognizant of the need for better quality of education (Madhur and Madhur, 2024, 14 January).

In addition, using Artificial Intelligence (AI) to improve the delivery of quality instruction is a possibility. Generative has the advantage of the capability to personalize learning to suit the context of the student, as it can analyze the needs and constraints of each student and accordingly prepare the content tailored to the specific needs of the students.

For example, “personalized AI tutors - Chatbots with endless patience – might someday meet the needs of curious students in remote schools. They might also help professional transition between skills – allowing, say, repair workers to level up their skills and learn engineering” (Bjorkegren 2023, 9 August). “One of the most exciting applications of AI in education is its ability to personalize learning for each individual student. By analyzing a student's writing and understanding their strengths and weaknesses, AI systems have the potential to generate tailored



learning materials that are specifically designed to help students improve. This can lead to better quality learning, as students are able to focus on the areas where they need the most help” (Newton 2023, 16 March)

Building on that, over the longer term, Cambodia could also use what is now referred to as ‘deep leaning’ method -- a more advanced version of machine learning that uses a “wider range of data resources (text, as well as unstructured data including images), requires even less human intervention, and can often produce more accurate results than traditional machine learning. Deep learning uses neural networks—based on the way neurons interact in the human brain to ingest and process data through multiple neuron layers that recognize increasingly complex features of the data” (McKinsey & Company 2024, 30 April)

In purely public economics terms, education at the lower levels of education primary and secondary inherently should be treated as ‘merit good’ (those in between public and private goods). Since both the students as well as the society as a whole benefit from education at these levels, it may reasonable that the public sector play a predominant role in financing and managing the system through effective, but simple. In contrast, tertiary or higher education is closer to private good, and hence reforming higher education should mostly rest with the private sector. Then there is the technical and vocational education system, which in Cambodia is under supervision of the Ministry of Labor and Vocational Training (MOLVT). Strengthening the country’s TVET should be the joint responsibility of the government, the private sector and the many representative bodies of is such as the chambers of commerce and industrial councils representing them.

### **3. Primary Education**

Primary education lays the foundations for a student to build on and move on to be a smart thinker subsequently. Indeed, a country with most people with primary education will also have higher adult literacy rate. That makes communication between people much easier reducing communication as well as transaction costs. It thus tends to have a huge externality. It has so many positive externalities for the country that it indeed is considered as a public good. “literacy and numeracy are gateways to education more generally” (World Bank 2018a, p.19)

Moreover, in the 21<sup>st</sup> century, with rapid changes in the information technology, the cost of not having the basic education would weigh in on the country’s capability to post robust growth and create productive employment to the growing labor force. That said, the recently begun Artificial Intelligence (AI) technology may, to some extent, allow the country to leapfrog in improving the quality of its education system. In that case too, public investment in AI would be key to strengthen the education system. Hence whichever way one cuts it, the need for public investment in better basic education will still be a necessity in the 21<sup>st</sup> century beyond.

As per the data from the World Bank's Development Indicators, primary education completion rate in Cambodia has risen from below 10% in 1997 to about 80% by 2021. This figure is still marginally lower than the average figure for lower-middle income countries of 86%, and the global average figure of 84%. However, there is a huge rural-urban inequality in terms of access to primary education. Cambodia will have to address this issue with right earnest.

Improving connectivity between rural and urban areas could be the first step in that direction. Along with that improvements in access to Internet in rural areas would also help the government in having online classes for the rural students. Even if all these are done, there still exists the perennial problem that Cambodia's curriculum for primary education is quite out of date. There is a need to improve the curriculum to enhance critical thinking and problem solving, and digital literacy. That, in turn, would improve the skills of people with primary education.

The government will have to invest in short courses to jack up the skills of the primary education teachers and/or increase the remuneration to the basic education teachers. In other words, either raise the incentives for the teachers in primary education or to invest in themselves or go in for directly public investment in upgrading the skills of primary-education-teachers. One way or another, more public investment in the country's primary education system would be needed in the years to come, if the country were to have better educated students to come out of the primary education institutions.

As early as 2005, a World Bank Study on Cambodia's education showed that: "While most children spend some time in primary school, significant numbers drop out before completing the primary school cycle. This decline in participation through the years of basic education is particularly severe among children from households in the poorest two wealth quintiles" (World Bank 2005, p.1). The same study also highlights: "Money invested in teacher development had the highest payoff in terms of student retention, promotion, and student learning, in particular. Cost-effectiveness calculations indicate that small amounts of money devoted to teacher training may have a large impact on learning (World Bank 2005, p.3).

From the perspective of the family of the students, "Household direct costs remain substantial, particularly in the form of pocket money, transportation expenses, and supplementary tutoring (World Bank 2005 p. 4). In response, to these emerging problems, the government has introduced measures such as shouldering operational budgets of schools as well as the abolition of enrollment fees. (World Bank 2005, p.8).

At the same time, an immediate imperative for the country is "to build a strong school management system which enables the school principal and teachers to monitor student attendance more closely" (MoEYS 2018, p.137). Encouragingly, "...in Cambodia rules-based financing has been used to ensure that books are delivered on time, in right language, and in right quantities, and to incentivize authors, teachers, and community to create books in languages that children speak at home" (World Bank 2023, p.13).

#### 4. Secondary Education

Globally, “the strongest schooling expansions have occurred at the primary level, leading to a sharp increase in the demand for secondary education” (World Bank 2018a, p.59). And Cambodia is not an exception to that global trend. Therefore, building on the improvements at the primary education, there is huge merit in government streamlining policies regarding secondary education level.

However, transport as well as language barriers impede students from rural areas to attend and complete their secondary education (OpenDevelopment 2023, 3 January). Students from ethnic minorities are reportedly struggling to learn because they do not necessarily understand Khmer language. Moreover, the lack of internet facilities hamper the possibility of introducing effective distance reaching and learning modalities to reach the rural students. Thus, there is a huge merit in the country enhancing its ICT that could then be used to impart digital Education to students in rural areas.

Other major problems in secondary education are the lack of trained teachers, and the mismatch between what the students learn at school and what the labor market of a rapidly growing middle income country demands. There is thus the need for more effective consultations between the secondary schools and the industry leaders and chambers of commerce in designing the curriculum for the secondary level education institutions, as also perhaps officials from the Ministry of Education and Sports. We have successful cases of such consultative routes well documented by the well-known 1993 East Asian Miracle Study by the World Bank (Bird et al. 1993).

At the same time, the assessment of students needs to be made context specific and made to identify lagging students at an early stage, so that they could be made to catch up gradually. “Knowing where students are allows teachers to adjust their teaching accordingly and to give students learning opportunities they can handle. Singapore has successfully used this approach—identifying lagging students in grade using screening tests and then giving them intensive support to bring them up to grade level” (World Bank 2018a, p.18). A unique experiment in Andhra Pradesh, India, rewarded teachers according to measured student performance in two subjects, namely, mathematics and language. Encouragingly, students then learned much more not only in those two subjects but also in Science and Social Studies (World Bank 2018a, p.19; Muralidharan, Karthik, and Yendrick Zieleniak. 2013)

Cambodia is thus well-placed to learn from those successful cases in Asian countries. In cases such as this, it is good to imitate rather than invent, because the latter would be much costlier than the former. A 2021 comprehensive study on High School Education in Cambodia has come up with policy options that the government could implement (Sar 2021). This study came up with more than 20 policy recommendations. To summarize the study’s recommendations: increase funding; improve teacher quality; enhance curriculum and learning materials; increase access to educational resources; encourage community and parental involvement; provide support for students with

special needs; foster a culture of lifelong learning; tighten assessment and evaluation systems; strengthen partnerships with the private sector; integrate technology into education; address gender disparities; strengthen early childhood education; and foster international partnerships (Sar 2023).

Even if the government implements one-third of these policy recommendations, it should still make a huge impact on the quality of secondary education. For a systematic implementation of these policy options, the government may like to classify these recommendations in to three categories: those that can be implemented immediately (over the short run), those to be done over the medium term of , say, 3 to 5 years; and those that would need a time span of more than 5 years.

It is encouraging that: “In order to achieve better results for the 2023-2024 academic year as part of the Pentagonal Strategy, Prime Minister Hun Manet has suggested that relevant parties, especially the Ministry of Education, Youth and Sport, should continue to implement the education reform program that has already been laid out and strengthen school governance” (Phnom Penh Post 2023, 1 December).

Moreover, he highlighted the importance of strengthening school governance, revising the curriculum to improve the knowledge-base of students, and implementing a child nutrition program by providing well-nourished food that the schools serve. He also mentioned that education ministry has already imbibed the key elements in the "Model School Standards" for kindergartens through high schools.

It is indeed encouraging that the education ministry has already implemented a student assessment system that places 80% weight on the knowledge gained by the student, 10% weight on life skills, and the remaining 10% weight on and morals and good conduct. Encouragingly. this is very much in line with the findings of a global-level study in the 2018 World Development Report on Education by the World Bank: “Assess learning – to make it a serious goal ‘What gets measured gets managed’” (World bank 20218a, p.16).

In fact, schools could use a wide range of metrics to assess learning by students. In a way, “teachers assess students in classroom every day- formally or informally... Formative assessment by teachers helps guide instruction and tailor teaching to the needs of students: Well-prepared, motivated teachers do not need to operate in the dark: they know how to assess the learning of students regularly, formally and informally” (World Bank 2018a, p.17-18).

It is encouraging that the Asian Development Bank has proposed a program loan to be implemented in the near future (Asian Development Bank 2024). This initiative should help improve the access to, and the quality of, upper secondary education. Once implemented, this should align the quality of the country’s upper secondary education with the 21st century skills.

## 5. Higher Education

In the mid-1990s, Cambodia had less than 10 Higher Education Institutions (HEIs) catering to about 10,000 students. At present there are about 132 institutions with around 200,000 students (Heng and Sol 2023, p. 6). Of the 132 HEIs, around 84 (or 63.3%) are privately owned, with the remaining run by the government. By any means, these figures indicate a phenomenal rise in both the number of the institutions as well as student enrollment. However, the quality of higher education does not seem to have kept pace with the quantity.

In the early phase of development of any education system, countries the trend must have been quite similar – rise in quantity first and quality improvements next. Over time, the incompetent institutions perhaps weed themselves out, or cater to those students who have lower capabilities in learning. Cambodia would not have been an exception to that trend in quantity and quality. Thus, there still is hope for improvements and no reason to despair and lose hope. To put it subtly, the Cambodian higher education system is in a huge transitory phase. The number of HEIs as well as students enrolled have shown an exponential growth but the improvements in the quality of education is yet to catch up. (Heng and Sol 2023; Yildizoglu 2022).

“Cambodia is transiting from a labor-intensive to a knowledge-based economy” (Open Development, 2022, 24 May). For successful completion of this transformation, the quality of HEIs needs to improve vastly. Many factors hold back quality of the country’s higher education system, including lack of science and computer laboratories, lack of qualified educational officials, and poor performance monitoring and evaluation, not so-so-good curriculum etc. (Heng and Sol 2023, p-9-11). Another 2022 study also ended with a similar cautionary note (Yildizoglu 2022). This study identified insufficient academic training of the faculty, poor research culture at the Universities, incomplete governance structures of HEIs, political interference in running HEIs are some of the more important constraints that hold back quality of higher education in the country (Yildizoglu 2022).

Here is a very instructive example: It is hard for a faculty member in a HEI having only a master’s degree or a bachelor’s degree, to do effective teaching. “...to be a fully competent teacher and researcher under the current standards, which have become very demanding and very technical, not only in STEM disciplines but also in humanities and social sciences” (Yildizoglu 2022, p. 26). “A bibliometric analysis by Heng (2021), for example, shows that Cambodia ranked 8th in ASEAN, producing only 3,521 documents over the last ten years, which are indexed in the Scopus database, one of the world’s largest abstract and citation databases” (Heng et al. 2021, p.1). Perhaps that indicates that professors at universities focus more on teaching, thus leaving them with much time to do research.

During the three years during which Covid-19 spread like wild fire, Cambodia, like many other countries gave a try to online leaning. It is certainly an option that the country could pursue to cut time that is spent on travelling between home and HEIs etc. Moreover, it prepares students to the

21<sup>st</sup> century digital age of learning. “However, since the success of students’ learning depends on a well-designed course, accessibility, preparedness, and the instructors’ ability to engage students in their learning, the possibility of adapting fully to virtual classrooms becomes successful only when these conditions are met” (Phin 2021, p. 20)

“MoEYS has implemented two key higher education improvement projects, namely the Higher Education Quality and Capacity Improvement Project (HEQCIP) and the Higher Education Improvement Project (HEIP). HEQCIP was a five-year project implemented between 2010 and 2015, but was extended to 2017, while HEIP is being implemented and will be completed in 2024” (Heng et. al. 2023, p. 93). In a similar vein, “in Cambodia, because there is a lack of professional and skilled labor in the country, the need to address the skill gap required for Industry 4.0 should receive a more in-depth discussion” (Nhil 2021, p. 1).

“There should be joint efforts from all relevant stakeholders such as the government, universities, non-governmental organizations, and development partners. To ensure Cambodians are ready for the future job market, the government needs to put in extra efforts to promote innovative research, STEM (science, technology, engineering, and mathematics) education, creativity, and critical thinking skills by integrating them into students’ learning programs and providing workers with more opportunities to be trained on skills needed for Industry 4.0” (Nhil 2021, p.4)

“Higher education management in Cambodia is fragmented and complicated since the 130 HEIs are being supervised by 16 different ministries and state institutions” (Mak et al., 2019, MoEYS, 2022). There is thus much scope for simplifying and streamlining the governance structure of HEIs. At the same time, policies to raise the remuneration structure of the HEI teachers should also receive due attention by the government and the private institutions that manage the run HEIs. These remunerations could be made results-based (RBF). “There is proof that RBF can have a positive impact on learning conditions and, in rare instances, on increasing learning itself. This makes it a powerful financing modality for policymakers around the world to consider using in their education sectors” (World Bank 2018, p. 87).

## **6. Technical and Vocational Education and Training (TVET)**

After completing the high-school or secondary education, students have two options to pursue – either go in for college education or accept the option to take TVET courses that could then help them to join the country’s labor force. For admission to the country’s TEVT program, students need at least the completion of lower secondary school. There is a variety of subjects available bale to study in Cambodia’s TVE p.1T system ranging from agricultural mechanism to computer o technology to civil engineering.

On 16 June 2017, the country formally approved a new Technical and Vocational Education and Training (TVET) Policy 2017–2025. A 2018 Policy Brief by the Asian Development Bank (ADB) did a critical assessment of this policy initiative across a wide range of policy issues (ADB 2018, February). It then came to the key conclusion that the country’s TVET system is not aligned with the labor market demands. The system lacked: quality assurance, up-to-date training methods and equipment, trainers with enough exposure to industry experience, and training infrastructure (ADB 2018, p. 2).

A similar study had cautioned that: “Technical and vocational education and training (TVET) teachers play a crucial role in equipping individuals with practical skills for the workforce, yet their significance is often overlooked and underappreciated” (Tanaka, et.al. 2023, 4 December). In addition, the onus seems to be on the curriculum and the quality of teachers that stunt many TVET courses in the country.

Just witness the global trend. Given the current global environment, China is moving away from being a imitator to an innovator. Many labor-intensive, imitable industries are now getting relocated outside of China. A quality TVET education in Cambodia could help the country to position itself to gain from China’s industrial relocation. In this context, Vietnam seems to have gained in terms of relocation of some industries away from China in to Vietnam partly due to lower labor costs and perhaps more importantly due to a more educated and hence better skilled pool of labor.

As a 2016 IMF study emphasizes “Labor costs, however, are only part of the story. The CLMV (Cambodia, Laos, Myanmar, and Vietnam) will need to strengthen their infrastructure, education, governance, and trade regimes, and also run sound macro policies in order to capitalize fully on the opportunities presented by China’s transformation. With such policy efforts, the CLMV could see their trade and integration with global supply chains grow dramatically in the coming years” (IMF 2016, 16 September, p. 5). Cambodia should strategically position itself in such a way that it gets some portion of these job relocations from China, especially through China’s Belt and the Road Initiative. Indeed, Cambodia, should make any future investment from China to be conditional on China providing technical education for the Cambodian workforce that work on these projects.

A 2019 study by the World Bank notes: “Fully 94 percent of jobs are in low-skilled occupations, with managers and professionals accounting for less than 5 percent of all jobs. While wages have increased in recent years, particularly for those near the bottom of the income distribution, more than half of jobs operate outside of the modern economy” (World Bank 2019, p. 5). This simply indicates that there is a huge scope for expanding job opportunities in the modern economy and TVET perhaps offers the best channel to gain these new jobs.

However, about 85% of Cambodian labor force has not completed even secondary school, averaging only 6.3 years of education. On top of these, the quality of even those who had this average years of schooling “is not very good” (World Bank, 2019, 19 November, p.25). Add to

this the outdated curriculum, lack of coordination of TEVT institutions with the country's industry leaders and Chambers of Commerce.

Once again, it is the curriculum -- a major hurdle in developing an effective TVET system curriculum. Low professional quality of teachers, lack of laboratory facilities and other infrastructure facilities imply amplify the problems. Then there is lack of coordination between TVET providers and the country's industry leaders and other industry associations like chambers of commerce etc. Inputs from close coordination between TVET institutions and the industry can help the country's TVET system remain up-to-date in terms of upcoming technologies and knowledge of these technologies by the TEVT students.

A 2023 study had cautioned: "A more systemic approach to ICT integration and digital transformation remains relevant and paramount for Cambodian HE and post-secondary subsector development as these sub-sectors seek to transform in accordance with the national digital transformation movement" (Eam and Song 2023, p. 40). That said, it is encouraging to note that that more recently, MOLVET has signed a Memorandum of Understanding (MOU) with some 18 enterprises that would provide internships to TVET students. The internships should give opportunities for the students to equip themselves with the skills required for the labor market needs of a fast-growing middle income country in the 21<sup>st</sup> century (Kiripost 2023, 18 November).

## **7. Summing Up**

As this paper has shown, improving the quality of the Cambodia's education system underscores the need for more qualified teachers, better curriculum, more student involvement in learning, faster adaptation to the new technologies, and of course, finally political commitment. Within this overall framework, policy makers need to identify issues and policy options particularly relevant to the different segments of education running from primary to higher education. Moreover, education institutions should consider how best to use Generative Artificial Intelligence to improve the quality of teaching so that the students could poses the skills required for tomorrow's job market This will also help Cambodia to leapfrog in its education reforms.

It is encouraging that the Education Minister launched a comprehensive 'Action Plan for Teacher policy for 2024-2030'. If implemented effectively, this Plan could develop teachers who are not only knowledge-conveyers to students but also those who impart the skills of critical thinking to the country's youthful population. In addition, effective implementation of the major structural reforms that are planned for under the 2023–28 Pentagonal Strategy should also be a policy priority (World Bank 2023, November)



That said, as the World Bank points out: “In general policy makers would be happy to sign off on new policy initiatives, but implementation of the changes are likely to be much more challenging. In particular, the 2018 World Bank study emphasizes the practical difficulties in implementing initiatives aimed at a better assessment of teacher performance” (World Bank 2018a, p.193). However, “abdicating responsibility and avoiding blame erode an education system’s ability to function, thereby perpetuating a low-accountability, low learning equilibrium (2018a, p.197).

“To be efficient, policies need to be designed so that they enable behavioral changes at scale (i.e., from teachers in a politically acceptable way. Making policies and their objectives clear, doable, and rewarding for all stakeholders, identifying ways to compensate the ‘losers’ and empower the ‘winners’ , and sequencing policies strategically can make them politically feasible and sustainable (World Bank 2023, p.12)

As Cambodia’s Ministry of Education itself highlighted: “Learning is, thus, not impossible when things are rightly planned and implemented” (MoEYS 2018, p. 135). The onus is on the Ministry to put this mindset into action.

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