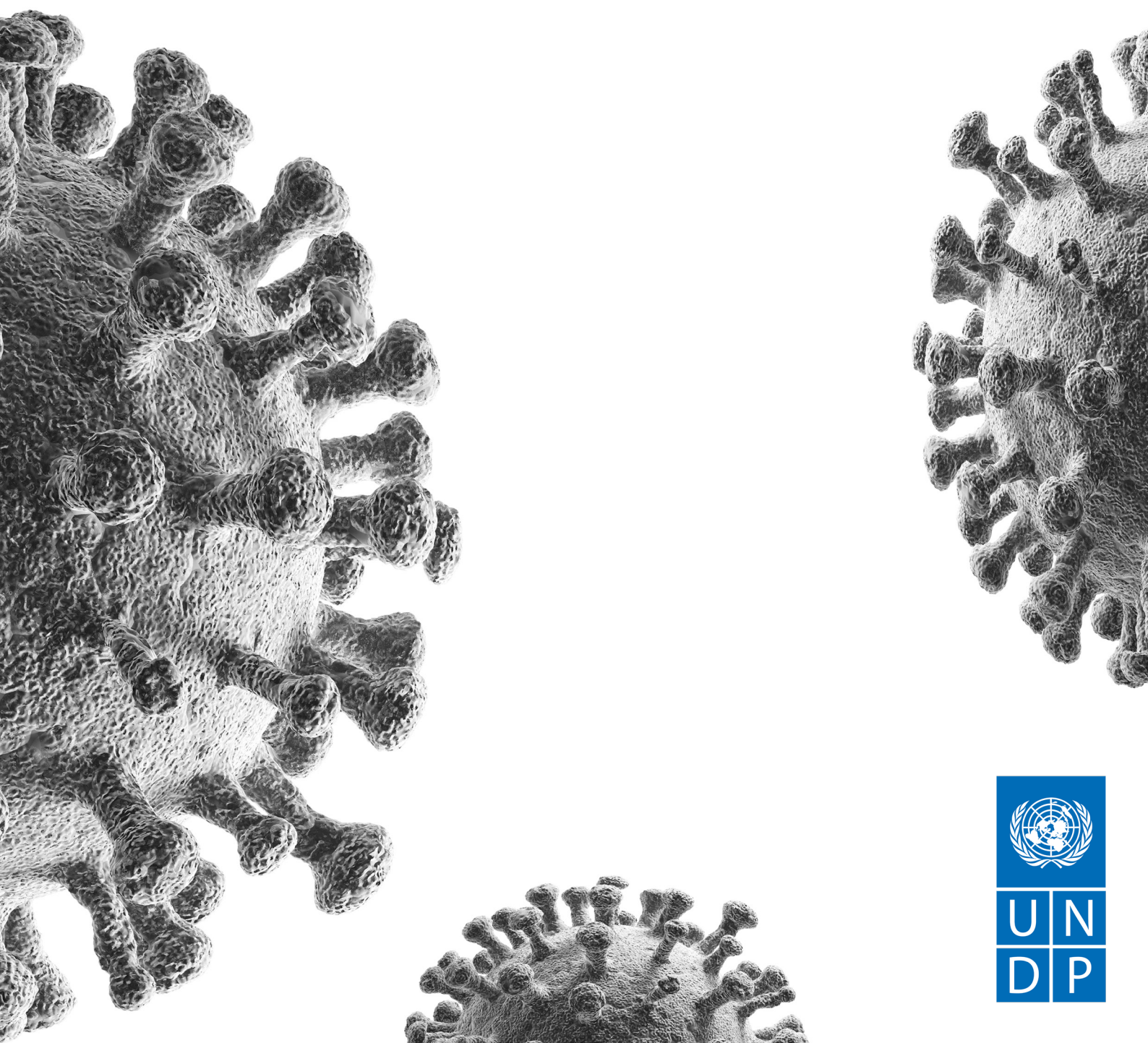


PROJECTED IMPACTS OF **COVID-19** ON THE 2020 HUMAN DEVELOPMENT INDEX IN CAMBODIA AND ITS NEIGHBORS



CONTENTS

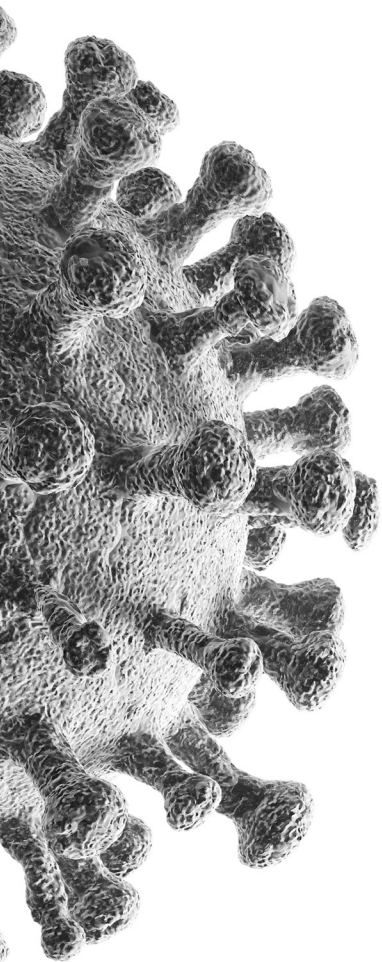
1. INTRODUCTION	1
2. METHODOLOGY	1
3. KEY FINDINGS.....	2
COMPARISON WITH GLOBAL AVERAGE.....	5
4. RECOMMENDATIONS	6
5. REFERENCES.....	7
APPENDIX 1: COVID-19 ADJUSTED HUMAN DEVELOPMENT INDEX: METHODOLOGY AND SOURCES.....	8
APPENDIX 2: COVID-ADJUSTED HDI CALCULATION FOR 2020.....	9
APPENDIX 3: EXPLANATORY NOTE 1 – GNI AND LIFE EXPECTANCY GROWTH PROJECTION.....	10



ACKNOWLEDGEMENT

This policy brief is written by Khoun Theara, policy analyst in charge of social and economic affairs at UNDP Cambodia. The author acknowledges that the text and analysis have benefited from invaluable contributions from: Nick Beresford, Dr. Ivan Gonzalez de Alba, Dr. Richard Marshall, Dr. Ouch Chandarany, and Dr. Phim Runsinarith at UNDP Cambodia. The author is also grateful to Dr. Heriberto Tapia of Human Development Report Office; Dr. Balazs Horvath, Dr. Bishwa Nath Tiwari, Nguyen Tien Phong, Dr. Somsay Ouanphilalay, and Dr. Anuk Serechetapongse of UNDP regional offices and country offices in Laos, Thailand and Vietnam; and Katheryn Bennett and Erna Ribar from UNICEF Cambodia, for their support and comments.

This draft policy brief is also made in consultation with relevant ministries. In particular, the author would like to extend his great appreciation to: Dr. Dy Samsideth, Dr. Bo Chankoulika and their team from the Ministry of Education, Youth and Sports; H.E. Tuon Thavrak, H.E. Nor Vandy and H.E. Keo Chettra from the Ministry of Planning; Chea Sopheak, Ban Kosal and their colleagues from the Ministry of Economy and Finance; H.E. Sang Sinawong and his team from the Ministry of Post and Telecommunication; and H.E. Ly Sovann from the Ministry of Health, for attending either one-on-one consultation or key stakeholder consultation meeting to discuss the draft version.



1. INTRODUCTION

The United Nations has called the Covid-19 pandemic “the greatest test that we have faced since the formation of the United Nations” (United Nations, 2020). The impact of this pandemic has not been limited to health, but has had severe social and economic effects. To stem the spread of the virus, many countries have imposed strict social distancing measures, closing business, schools and other institutions. However, this systematic crisis presents a unique opportunity to address damaging inequalities—between people and technology, between people and the planet, and between the haves and the have-nots (UNDP, 2020a).

The health impact in Cambodia and its neighbours has been limited compared to most other countries. As of 22 December 2020, Cambodia has 362 Covid-19 cases and zero deaths, Lao PDR has 41 cases and zero deaths, Thailand 4,331 cases and 60 deaths and Vietnam has 1,411 cases and 35 deaths (WHO, 2020). The larger impact has been social and economic. In Cambodia the Royal Government has estimated GDP to be -1.9% for 2020, and that poverty may rise from 11% to 14% (MEF, 2020; Fresh News, 2020).

This policy brief employs the Covid-19 adjusted Human Development Index (HDI) framework to examine the possible effects of Covid-19 on human development progress across three main dimensions—income, health and education—in Cambodia. It then compares them to progress made in the neighboring nations of, Lao PDR, Thailand and Vietnam. The simulation results illustrate the dire effects of Covid-19 on HDI across the four countries, with Cambodia being hit more severely in aggregate, especially in terms of education. This paper recommends that investments in online and digital learning infrastructure and the safe reopening of schools be among strategic policy responses to reduce inequalities in human development, and to ensure a timely recovery.

2. METHODOLOGY

The Human Development Index measures key dimensions of human development which emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone.¹ It ranges between 0 – 1. UNDP’s Human Development Report Office has classified countries in four groups based on their HDI score. A score of 0-0.549 denotes a low human development group, 0.55-0.699 medium, 0.7-0.799 high, and 0.8-1 very high human development. The Asia and the Pacific region is diverse with some countries with a medium level of human development such as Cambodia, Lao PDR and Myanmar, and several countries rank as having very high human development, including Australia, New Zealand, Japan, the Republic of Korea and Singapore (UNDP, 2020b). Of the four countries studied here, Thailand and Vietnam fall in the high human development group and the remaining two are in the medium human development group.

HDI consists of three dimensions:

- ❑ A long and healthy life – measured by life expectancy.
- ❑ Knowledge – measured by expected years of schooling of children at school-entry age and mean years of schooling of the adult population.
- ❑ A decent standard of living – measured by Gross National Income per capita adjusted for the purchasing power.

The study adapts the methodology from standard HDI dimensions using the modified education dimension. This reflects the effects of school closures and mitigation measures and takes into account the current projections of gross national income (GNI) per capita for 2020. This methodology was introduced by the Human Development Report Office to assess the impact of Covid-19 in HDI globally (UNDP, 2020a). In this

1. UNDP HDI definition <http://hdr.undp.org/en/content/human-development-index-hdi>

study, the three indicators are adjusted as below:

- ❑ Health: the average growth in life expectancy in the four countries over the last three years (as it is assumed that Covid-19 does not affect life expectancy across the four countries due to extremely low Covid-19 related deaths).
- ❑ Income: the average GNI per capita using the multiplication of 2019 GNI value with Covid-adjusted GDP growth projections from the latest World Bank's projection as of October 2020 (World Bank, 2020), adjusted for annual population growth.²
- ❑ Education: it is assumed that the mean years of schooling will be constant in short-term projections but the expected years of schooling will be affected by school closures. To account for this readjustment, household internet penetration rates and the length of school closures are used as proxies to measure the extent to which students can access distance education and learning resources over these periods. The digital divide implies an inherent, significant inequality in access to the opportunity to engage in distance learning while being also quantifiable.

A detailed methodology and calculation basis can be found in Appendix 1 and 2.

3. KEY FINDINGS

All four countries have introduced various complementary educational measures during periods in which schools were closed. When schools were reopened they reduced or cancelled planned holidays to make up for lost time. Given the limitations in terms of data on the reopening of schools and compensation schedules in Lao PDR and Thailand, the analysis that accounts for schooling compensation is only available for Cambodia and Vietnam.

During the shutdown of Cambodia's schools, the Cambodian Ministry of Education, Youth and Sports (MoEYS) introduced measures such as televised and radio education programs to enable students without internet access to stay connected. All public schools were reopened from 2 November to 28 November 2020 to make up for the lost second semester.³ However, schools have been closed again until the end of 2020 due to reported community transmission of COVID-19. New school year 2020-21 will commence on 11 January 2021 instead of commencing on the 1 November, which is the normal school year start date. In total, school closure is effective for 97 days or 33.5 per cent of all public-school calendar days. In Vietnam, learning compensation measures were introduced during the two-month semester break in June and July, so the effective school closure time is only 31 days.

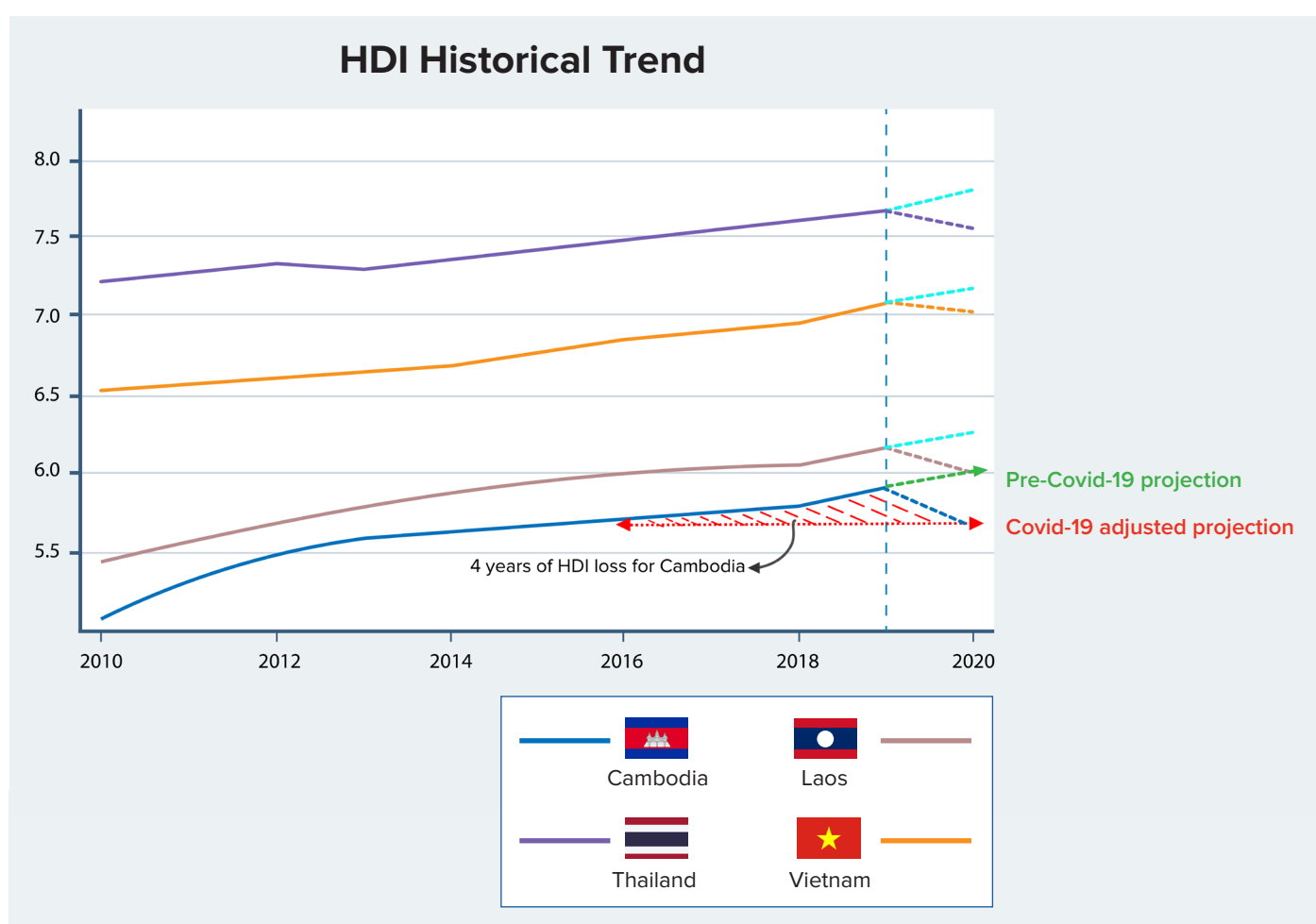
The simulations show that Covid-19 set to cause a drastic decline of HDI in all four countries. Cambodia is set to be hit hardest with aggregate HDI declining by 3.93 per cent from 0.594 in 2019 to 0.571 in 2020 (Table 1). For Cambodia, this is equivalent to erasing all progress made in human development over the past four years, back to 2016 (0.572). In Lao PDR, the projected impact is less severe (-2.59 per cent), followed by Thailand (-1.69 per cent).⁴

Vietnam is less affected, with a contraction of 0.39 per cent (0.701). This is just enough to maintain the country's status as a high human development country on par with Thailand. This is due to strong economic performance coupled with a relatively shorter period of school closures and high internet penetration rates which makes distance learning possible (as a key assumption under this methodology).

-
2. UNDP projection for GNI is available for Cambodia only, so to be consistent and comparable across countries and with the original UNDP global study, World Bank figures are used.
 3. In Cambodia, schools were reopened in three stages. In stage 1, a small group of 20 private schools with high safety measures were allowed reopening on August 1; in stage 2, schools were reopened on 7 September for grades 9 and 12, and all grades in Kratie, Steung Treng, Mondulkiri and Ratanakiri; and in stage 3, all schools across Cambodia were reopened.
 4. If the school compensation schedules of Thailand and Lao PDR are available, the impacts would be less severe.

Table 1: The percentage change in projected 2020 HDI vs 2019 HDI

Country	2019 HDI	2020 pre-Covid est.	2020 HDI (Covid-adjusted)	Value Changes (at 2019 base)	Percentage Changes
Cambodia	0.594	0.602	0.571	-0.0233	-3.93%
Lao PDR	0.613	0.620	0.597	-0.0159	-2.59%
Thailand	0.777	0.788	0.764	-0.0132	-1.69%
Vietnam	0.704	0.711	0.701	-0.0027	-0.39%

Figure 1: HDI historical trend in Cambodia, Lao PDR, Thailand and Vietnam

Cambodia's HDI contraction is attributable to two main factors. First, a drastic decline in the education index, of 11.11 per cent, due to prolonged school closures (approximately 97 school calendar days) aggravated by a low internet base of 47.9 per cent coverage (Table 2 and Table 3). Second, a drop in the income index by 0.9 per cent, due primarily to the global demand shocks of its key exports especially in the garment, construction, and tourism sectors (Table 3). In comparison, Lao PDR, Vietnam and Thailand had shorter school closure times, although all countries, excluding Lao PDR, have higher cases of Covid-19, compared with that of Cambodia.

Table 2: Duration of school closure and household internet coverage

Country	School closure date	School reopening date ⁵	Duration ⁶	Internet coverage
Cambodia	16 March 2020	2 November	97 days	47.9%
Vietnam	30 January	4 May	31 days	74%
Lao PDR	23 March	18 May	56 days	42%
Thailand	18 March	1 July	84 days	81.7%

Source: Phnom Penh Post, 2020; Agence France-Presse, 2020; UNICEF, 2020; Bangkok Post, 2020; World Internet Statistics, 2020

Table 3: Projected changes in the education, income and life expectancy indexes

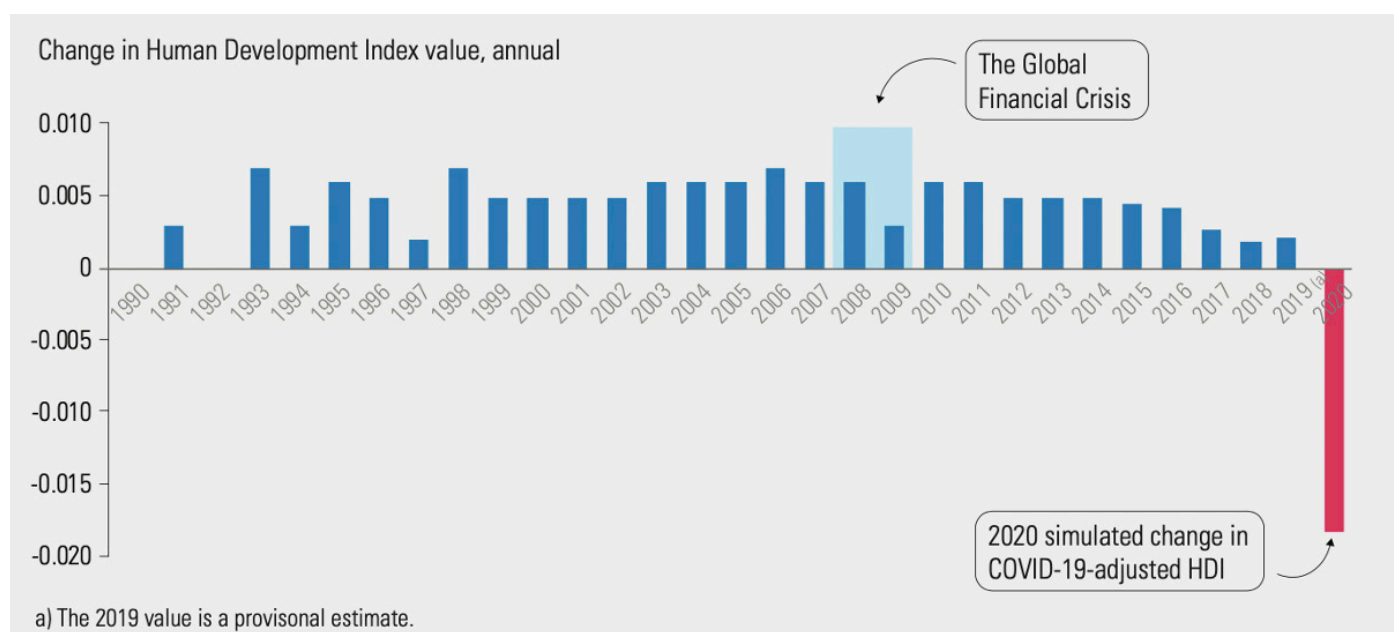
Country	2019	2020	Value Changes	Percentage Changes
EDUCATION INDEX				
Cambodia	0.484	0.430	-0.054	-11.11%
Lao PDR	0.481	0.444	-0.037	-7.77%
Thailand	0.682	0.656	-0.026	-3.86%
Vietnam	0.630	0.618	-0.012	-1.90%
INCOME INDEX				
Cambodia	0.566	0.561	-0.005	-0.90%
Lao PDR	0.650	0.647	-0.003	-0.42%
Thailand	0.783	0.769	-0.014	-1.82%
Vietnam	0.651	0.653	0.002	0.38%
LIFE EXPECTANCY INDEX				
Cambodia	0.766	0.770	0.004	0.52%
Lao PDR	0.737	0.742	0.005	0.62%
Thailand	0.879	0.884	0.005	0.52%
Vietnam	0.852	0.854	0.002	0.27%

- Schools are reopened at various stages and are different across grades in the four countries. This paper opts for the stage with most students getting back to schools in person.
- The calculation method for school closure is based on public-school calendar days, and considers the schooling compensation days in respective countries where data is available.

COMPARISON WITH GLOBAL AVERAGE

Simulations undertaken by the Human Development Report Office in mid-2020 that utilize the same Covid-19-adjusted HDI approach project a steep drop in human development worldwide this year (UNDP, 2020a). The contraction is driven mainly by a massive setback in effective education, with school closures affecting 9 in 10 students and a severe global economic recession (including a 4 percent decline in the global GNI per capita, with 170 countries expected to experience negative per capita income growth in 2020). The decline in the index amounts to a reverse in all human development gains in the last six years. This has never before occurred since the Human Development Report was introduced in 1990. It is projected that if schools are reopened, capacities related to education would bounce back and the income dimension would follow in the post-crisis economic recovery scenario (ibid.).

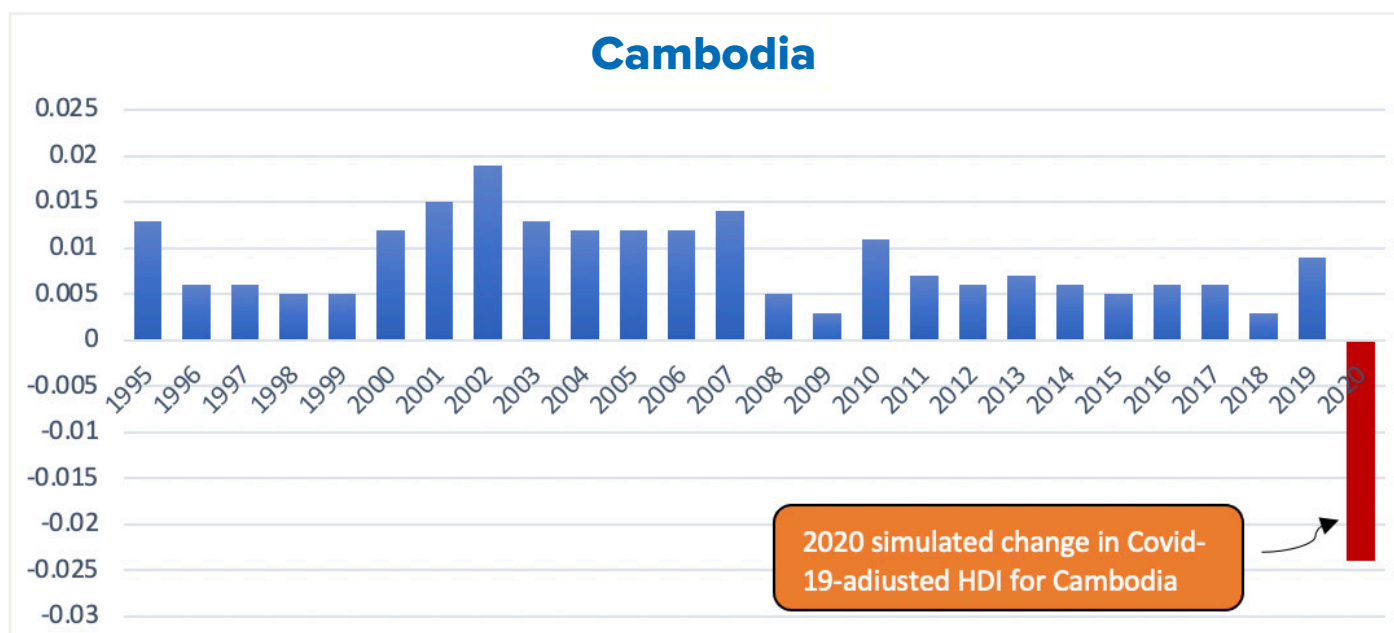
Figure 2. Human development is facing an unprecedented downturn since the concept was introduced in 1990



Source: Human Development Report Office simulations based on data from the International Telecommunications Union, the United Nations Educational, Scientific and Cultural Organization Institute for Statistics, and the World Health Organization. (UNDP, 2020)

For Cambodia, a decline in HDI of 0.023 is higher than the global average of 0.018 with Lao PDR, Thailand and Vietnam managing to perform better than the global average (Figure 2). Again, variations are led by the duration of school closures, internet infrastructure and economic resilience, among other factors.

Figure 3. 2020 simulated change in Covid-19-adjusted HDI for Cambodia



4. RECOMMENDATIONS

While schools and universities in many countries including Cambodia have moved their courses and learning online amid the pandemic, access to education technology and resources is highly disparate across countries and regions. Despite a convergence in basic technologies such as mobile phone subscriptions, digital gaps between and within countries are risen in other technologies, such as access to computers, the internet and broadband connectivity, which are examples of enhanced capacities (UNDP, 2020).

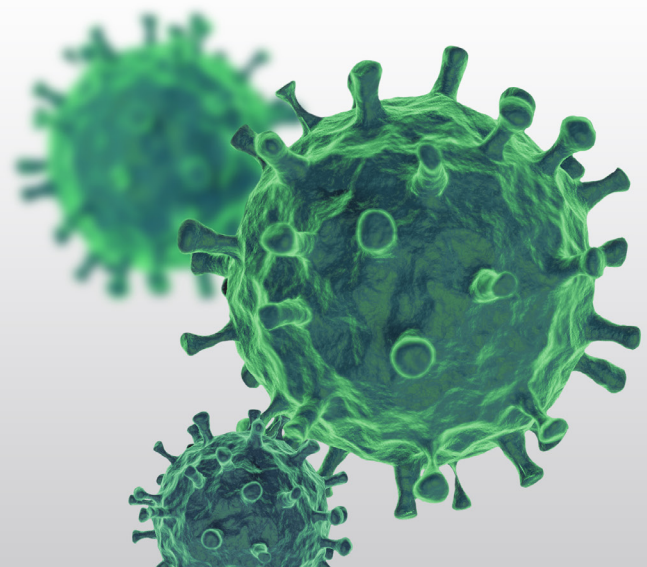
Given that set-backs in educational attainment are driving the fall in human development, this report suggests that policy responses focus first on that sector, as follows:

Short-Term:

1. Maintain stringent health and safety measures during the reopening of schools to minimize the risk of school reclosures. This is the most important factor to ensure the best-case scenario and bring Cambodia's aggregate HDI back on track.
2. Continue the implementation of stimulus packages, including the Covid-19 cash transfer program for poor and vulnerable households, to prevent people from sliding back into poverty and to stimulate the economy.

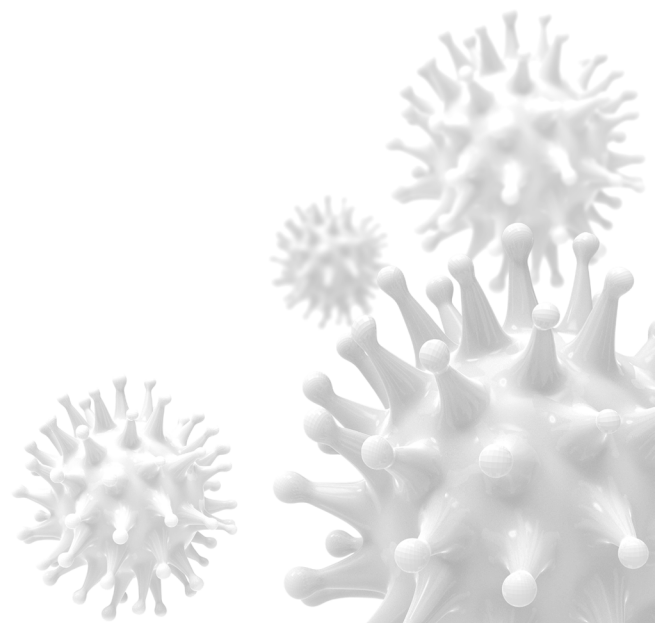
Medium-Term to Long-Term:

3. Continue the roll-out of high-speed internet connectivity and improve accessibility and equity, especially in areas where internet connection is low or unavailable.
4. Introduce policies and mechanisms to incentivize state and non-state actors to invest in the infrastructure needed for online education, such as quality digital learning platforms and to make digital tools such as tablets, smart phones and computers more accessible and affordable. One possibility would be for the government to match funds from the private sector for these purposes.
5. Continue the investment in the literacy programs for adults and students that drop out of school, such as the Basic Equivalency Education Program, to improve inclusiveness and the mean years of schooling for adults (as Cambodia has lagged behind many countries due to the prolonged civil war and the Khmer Rouge genocide).
6. Increase budget allocations to the education sector to help offset losses in educational attainment during the pandemic. This should include programmes that could help reach those cohorts that lost access to school.
7. Expand social health insurance such as the Health Equity Fund and the National Social Security Fund via state contribution, self-contribution or compulsory contributions to increase resilience to socio-economic shocks and as a move towards the achievement of universal health coverage.
8. Extend the IDpoor system to create a longer-term cash transfer program that targets poor and vulnerable households.



5. REFERENCES

- Agence France-Presse. (2020, May 4). Vietnam kids back at school after 3-month virus break. Retrieved from The Jakarta Post: <https://www.thejakartapost.com/seasia/2020/05/04/vietnam-kids-back-at-school-after-3-month-virus-break.html>
- Bangkok Post. (2020, July 28). Officials consider full reopening of schools. Retrieved from Bangkok Post: https://www.bangkokpost.com/learning/easy/1958811/officials-consider-full-reopening-of-schools?cx_placement=article#cxrecs_s
- Fresh News. (2020, July 20). Senior official at MEF: Poverty rate rises amid Covid-19 pandemic (Unofficial translation). Retrieved from <http://freshnewsasia.com/index.php/en/localnews/164678-2020-07-08-08-45-10.html?fbclid=IwAR1onDa5YcarLtDvrazh3X8svzNp4k8ZwSBeBHaFuDKUVkanPmBCs8B3jW8>
- MEF. (2020). Cambodia: Macro Performance and Outlook. Phnom Penh.
- Phnom Penh Post. (2020, August 27). Ministry confirms reopening of selected schools in Kingdom. Retrieved from Phnom Penh Post: <https://www.phnompenhpost.com/national/ministry-confirms-reopening-selected-schools-kingdom>
- UNDP. (2020a). 2020 Human Development Perspectives: Covid-19 and Human Development: Assessing the Crisis, Envisioning the Recovery. New York: Human Development Report Office.
- UNDP. (2020b). Human Development Report 2020: The Next Frontier: Human Development and the Anthropocene. New York: Human Development Report Office.
- UNICEF. (2020, July 24). Heading back to school in the pandemic. Retrieved from UNICEF: <https://www.unicef.org/coronavirus/heading-back-school-in-pandemic>
- United Nations. (2020). World Faces 'Gravest Test' since Founding of United Nations, Secretary-General Tells Security Council, Calling for Unity to Address COVID-19 Pandemic.
- WHO. (2020, December 22). Covid-19 Weekly Epidemiological Update. Retrieved from World Health Organization.
- World Bank. (2020). From Containment to Recovery: World Bank East Asia Pacific Economic Update October 2020. Washington DC: The World Bank Group.



APPENDIX 1: COVID-19 ADJUSTED HUMAN DEVELOPMENT INDEX: METHODOLOGY AND SOURCES

Variable used COVID-19 Adjusted HDI	Change with respect to HDI?	Notes	Sources for 2019 and 2020
Life Expectancy at birth	<p>Since fatality rate of Covid-19 across four countries are extremely low, it is assumed that the pandemic does not affect life expectancy.</p> <p>Life expectancy growth over the past three years is averaged to estimate life expectancy in 2020.</p>		Human Development Report Office
GNI per capita	Latest World Bank growth project (October 2020), adjusted for an averaged population growth rate	GDP growth projection rate is also used to forecast the GNI growth as GNI growth projection is not produced by those institutions.	World Bank
Mean years of schooling	No change		Human Development Report Office
Adjusted expected years of schooling	<p>Adjusted_EYS= (1-close(1-inet))*EYS</p> <p>close: % of time of school closure. inet: % of households with access to internet. EYS, expected years of schooling</p>	<p>Formula derived from definition of EYS (a linear function of enrollment rates), substituting enrollment rates by an estimate of effective attendance rates.</p> <p>Note that If close=0, then Adjusted_EYS=EYS (no change). In this case, COVID19-Adjusted HDI=HDI.</p> <p>If close=1, then Adjusted_EYS=inet*EYS</p>	World Internet Statistics internetworldstats.com

APPENDIX 2: COVID-ADJUSTED HDI CALCULATION FOR 2020

Country	GNI per capita, PPP	GNI per capita ⁷	Log PCY	Income Index	Mean Years Schooling	MYS Index	Expected Years of Schooling	School closure	Household internet access	Expected Years of Schooling (adjusted)	EYS Index (adjusted)	Education Index	Life Expectancy**	Life Expect. Index	HDI 2020
	2019	2020 Est.	2020 Est.		2019		2019						Est. 2020		
Cambodia	4246	4,099.59	\$ 8.3186	0.5609	5.00	0.3333	11.50	0.3356401	0.479	9.489012111	0.5272	0.4303	70.1	0.7700	0.5707
Lao PDR	7413	7,259.63	\$ 8.8901	0.6473	5.30	0.3533	11.00	0.2178988	0.42	9.609805447	0.5339	0.4436	68.2	0.7416	0.5971
Thailand	17781	16,256.41	\$ 9.6962	0.7690	7.90	0.5267	15.00	0.3193916	0.817	14.12326996	0.7846	0.6556	77.5	0.8839	0.7638
Vietnam	7433	7,565.47	\$ 8.9313	0.6535	8.30	0.5533	12.70	0.124498	0.74	12.28890763	0.6827	0.6180	75.5	0.8538	0.7013
Max value (global)		75000			15		18						85		
Min value (global)		100			0		0						20		

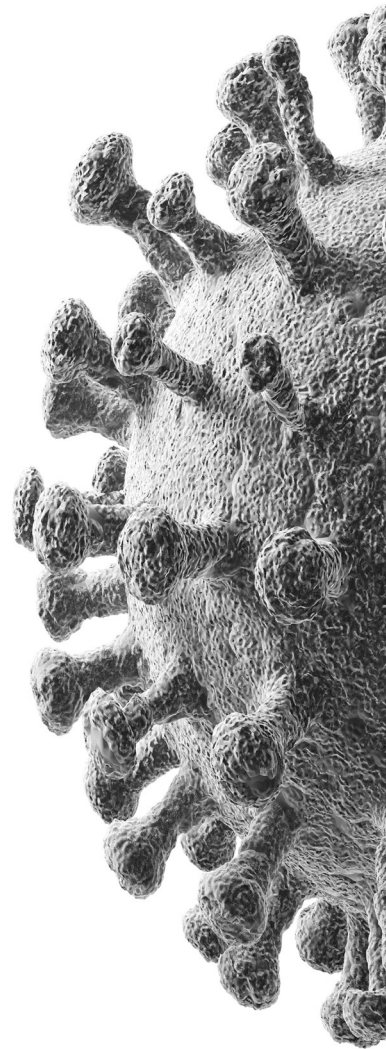
HD Coding

Very high	0.8	1
High	0.7	0.799
Medium	0.55	0.699
Low	0	0.549

7. See Appendix 3

APPENDIX 3: EXPLANATORY NOTE 1 – GNI AND LIFE EXPECTANCY GROWTH PROJECTION

Country	World Bank (as of October 2020)	Pop growth (2019)	GNI 2019	GNI 2020 per capita est.*	Life exp 2017	Life exp 2018	Life exp 2019	Life exp 2020 Est.**
Cambodia	-0.02	0.015	4246	\$ 4,099.59	69.3	69.6	69.8	70.1
Lao PDR	-0.006	0.015	7413	\$ 7,259.63	67.3	67.6	67.9	68.2
Thailand	-0.083	0.003	17781	\$ 16,256.41	76.7	76.9	77.2	77.5
Vietnam	0.028	0.01	7433	\$ 7,565.47	75.2	75.3	75.4	75.5



United Nations Development Programme
53 Pasteur Street, Beung Keng Kong, Phnom Penh, Cambodia.

www.kh.undp.org

