COVID-19 CORONAVIRUS RESPONSE

South Asia: Higher Education[1]

Context

The higher education (HE) system in South Asia is vast. Compared to other regions, it is the second largest in terms of HE enrolment and accounts for 18 percent of all tertiary education students globally. Over 42 million students are enrolled in about 50,000 HE institutions (HEIs) across the 8 countries. The private sector is an important player in TE in the region – in India and Nepal private universities, colleges and standalone institutions account for over 65 percent of HE enrolment; in Bangladesh and Afghanistan the private sector share is over 40 percent; and in Pakistan and Sri Lanka private HEIs cover 20 percent of all enrolment. A substantial share of students is also enrolled in distance education programs or external degree programs. In Bangladesh, Pakistan and Sri Lanka the share of these students is higher than in other SAR countries – roughly a quarter in Bangladesh and Pakistan, and half of all enrolments in Sri Lanka. In addition, some of the countries also have massive open online course (MOOC) programs. There is variation in the quality and relevance of these courses and data on student take-up and completion is limited.

India	37M students
Bangladesh	4M students
Pakistan	2M students
Nepal	0.4M students
Afghanistan	0.4M students
Sri Lanka	0.3M students
Maldives	14K students
Bhutan	11K students

The Pandemic's Impact on Higher Education

The Covid-19 pandemic is having wide ranging impact. Owing to the pandemic, all SAR governments closed HEIs in March 2020 as part of strict lockdowns imposed to curb transmission of the virus. In many cases the closures came towards the end of the academic year disrupting completion of the syllabus for the academic year, examinations required for transition or graduation from HE, and/or examinations or admissions procedures for entry into HE. The most likely short and medium-term impacts are discussed below[3]. Crisis situations exacerbate existing weaknesses in the system. Experiences from past disasters suggest that the health and preparedness of communities and institutions before the disaster are predictive of impact of the crisis. However, universities, colleges and regulators in the region have used the crisis as an opportunity to move operations online, accelerating trends that had already begun in several SAR countries.

Status of Closures between March '20 and August '21[2]	
In most cases, HEIs moved to remote/online operations during closures	
Afghanistan	202 days
Bangladesh	525 days
Bhutan	299 days
India	409 days
Maldives	--
Nepal	363 days
Pakistan	223 days
Sri Lanka	--

Reopening efforts in SAR are underway. These are supported by health and safety guidance and reopening frameworks developed by all SAR governments. In India, sub-national governments make reopening decisions based on caseloads and risks in their state. In some cases, multiple waves of cases have led to a second round of closures. In Pakistan, universities and colleges reopened in September (after 6 months of being closed) but were closed again in November following a second wave of the pandemic.

[1] This note is prepared by Namrata Tognatta with contributions from the SAR HE team (Sangeeta Goyal, Koen Geven, Kurt Larsen, Harsha Aturupane and Mohan Prasad Aryal). The note is focused on the potential impact from COVID-19 on higher education in SAR; and draws from the World Bank's global note 'Tertiary Education and COVID-19'. (http://pubdocs.worldbank.org/en/621991586463915490/WB-Tertiary-Ed-and-Covid-19-Crisis-for-public-use-April-9.pdf)

[2] For all countries except Pakistan data sourced from the Oxford COVID-19 COVID tracker and represent closures as per government policies requiring closure of all educational institutions in the country. Data and codebook available at http://bsg.ox.ac.uk/covidtracker.For Pakistan, data from the Higher Education Commission of Pakistan.

[3] World Bank, 2020. The COVID-19 Pandemic. Shocks to Education and Policy Responses. (https://openknowledge.worldbank.org/handle/10986/33696)

Impact & Mitigation: Teaching-Learning and Research

- The impact of university and college closures directly affect youth between 18-24 years of age participating in HE. Disruption of structured academic and research work can lead to losses in acquisition of knowledge and skills. While students from better-off households and those enrolled in elite institutions are likely to have access to and use digital resources to maintain some continuity with academic work during the closures, disadvantaged students (first-generation college goers, women, tribal youth, economically disadvantaged, and so on) and those at non-elite institutions (particularly those enrolled in the college sector[4]) will likely suffer deeper learning losses.
- The disruption will also increase inequality in access and participation. In nearly all SAR countries, children in the poorest 20 percent of households face the greatest difficult accessing higher education, and for poor girls, the probability is virtually nil[5]. Students belonging to disadvantaged groups (including women, tribal youth and those with health vulnerabilities) are particularly at risk. The indeterminate break from their formal course of study may leave them at risk of dropping out of the system due to reduced household incomes, higher opportunity cost of youth's time and reduction in HE supply.
- A large number of teachers are part of the HE system in SAR. In many cases, there is an expectation from ministries/departments of higher education (explicitly in some cases) that teaching activity continue during closures through alternative means using distance and online modes. However, key requirements (infrastructure, content, etc.) for alternate modes for teaching and delivery of education are not widely available in SAR countries. Reaching students who have limited access to the internet and computers/tablets or other modalities (including phones, which are often shared devices within low-income households) pose challenges. In **India**, for instance, fewer than 10 percent of households have access to internet, and in **Bangladesh**, limited access to devices and connectivity is found to impact about 40 percent of economically disadvantaged university students.[6] There is also limited guidance for teachers on how to systematically deal with teaching-learning during the crisis. Besides limited access to broadband internet connectivity and availability of digital content, lack of training in the use of digital pedagogy, student assessments and ways of supporting students remotely constrain teacher responses during the crisis.
- Research work involving experimentation, specialized equipment, etc. (as opposed to desk research), has been delayed. In the medium-term there may also be decreased funding to continue or undertake new research and innovation activities.
- Researchers from a variety of fields, primarily within the health sciences such as epidemiology, public health, virology and micro-biology are contributing to the crisis response, often without proper resources. Where possible, funding agencies and regulators are trying to issue rapid research calls. Ten rapid research calls have been issued in **Pakistan** to respond to COVID and are currently under implementation.

[4] The 'college sector' includes colleges, both public and private, affiliated to universities.
[5] World Bank, 2020. Ready to Learn – Before School, In School and Beyond School in South Asia.
[6] For India, National Family and Health Survey III. For Bangladesh, results from flash survey conducted by student organization in Bangladesh.

- Global travel is practically suspended in the short-term impacting students and faculty engaged in teaching-learning and research activities internationally. There could be revenue implications for countries like India receiving a large number of international students, and decisions on international academic mobility may decline.

ONGOING EFFORTS IN THE SOUTH ASIA REGION

Use of National Research Networks. Afghanistan, Bangladesh, Pakistan and Sri Lanka are leveraging their national research network (AfgREN, BdREN, PERN and LEARN , respectively) for sharing digital resources, delivering online higher education, critical health-related information and providing a p

Use of digital content and alternate modalities. In Bangladesh, India sharing digitized lectures and study materials with students and using for teaching and using virtual laboratories for experimentation and pra

Leveraging the 'Open' Universities. Bangladesh, India and Pakistan available through their 'open universities' (that conduct distance educ radio and web-based television. The use of MOOCs is being encoura

MOOCs. In India, national platforms like Swayam and NPTEL have lar online courses have been mapped to the engineering curriculum a somewhat more structured and enabling students to continue acade

GUIDANCE FOR DISTANCE LEARNING *

1. Assess digital preparedness and for various forms of remote teaching, learning and research.
2. Plan for multi-modal delivery (for equity gains) and consider beginning with pilot projects.
3. Identify areas where capabilities need strengthening (for e.g., infrastructure, pedagogical skills for remote teaching and student support, remote assessments, and so on).
4. Curate existing digital content and identify areas where new content may need to be developed over the medium to long-term.
5. Restructuring of curricula and syllabus to align with changes to academic schedules and alternate delivery modalities.
6. Establishing certification and credit requirements in keeping with the above.
7. Monitoring and evaluation plans to enable timely, incremental improvements.

* WB's key principles for EdTech in tertiary education additionally emphasize engaging the TE ecosystem, designing for scale and considering appropriate quality assurance.

- **Maintaining continuity with academic work.** HEIs have moved towards remote/online learning to various degrees. These efforts are supported by national governments building capacity for online education through ongoing WB-funded projects or through National Research and Education Networks (NRENs) or initiated by individual HEIs themselves. Efforts currently run the gamut from providing students digitized lectures and materials, online course modules, web-conferencing for teaching and discussion, supporting disadvantaged students with access to technology to the use of virtual laboratories for practical demonstration and experiments. (The Box above lays out current efforts underway in SAR countries). As the lockdown has extended, governments (or HEIs themselves) have more systematically planned for academic work scheduling classes and the course content to be covered during closures. Data on how many students are covered by different distance learning modalities is limited and as such, the use of available digital resources is mostly left to students, which raises some concerns about accountability.
- In the short-term, the focus has been on utilizing, where possible, existing resources (across modalities – online and television). SAR governments have made efforts to curate and map available content to programs/courses for ease of use on the part of teachers and students. For the medium and long-term, some HE systems and institutions are making efforts to systematically plan, pilot and scale distance learning solutions. See Box on 'Guidance for Distance Learning' for more information.
- In **Sri Lanka**, a recent study echoes some of this guidance and impact from the pandemic including the differential impact on poor households/students, connectivity challenges, the need to review curricula and

pedagogy for transitions to alternative delivery modalities, etc. The study found that, in the universities surveyed, 90 percent of the students were able to access online education. This was facilitated by the government's efforts to provide free internet access to university servers for a period of time.[7]

- **Rapid Response Surveys to assess digital preparedness.** In the short to medium-term, rapid response surveys could be utilized assess digital preparedness at HEIs and at the sector level, the reach of existing distance learning options, students' capacity to engage remotely and teachers' capacity to use of distance learning platforms for teaching-learning and research. In **Pakistan**, for instance, the HEC has created a dashboard to track the digital response of universities across the country.[8] This will help governments, universities and HEIs identify what will be needed to continue remote academic and research work.

  Building Resilience. In a number of countries, university regulators and leaders have recognized the importance of strengthening emergency preparedness of universities. **Bangladesh** and **Afghanistan** are planning to create and support emergency response committees that will guide closing and opening decisions, while also maintaining the critical infrastructure that is needed to continue remote operations. In **Pakistan**, a national response committee was formed that may continue operations in the longer run.

Impact & Mitigation: Admissions, examinations and graduation

- Delays in end-of-year/semester examinations and the unpreparedness of most systems to conduct remote assessments of student learning delayed student transition and graduation decisions. Decisions to move examinations online or conduct them completely offline, in-person or in some blended mode requires assessing equity, fairness and health implications. The large scale of the systems and the rising number of cases in the region further complicates these decisions.
- Online admissions procedures in several HEIs provide some mitigation against delays in bringing prospective students into HE, but where these procedures are not online, there may still be some uncertainty around processes for admissions into HE.

- **Admissions.** Governments in SAR have largely adopted online admissions systems. Delays from late administration of school-leaving and entrance examinations, social distancing policies, administrative requirements at HEIs to carry out and complete admissions, and other health and safety measures, resulted in later beginning to the 2020-21 academic year. In **India**, most HEIs began the new academic year in October 2020. In countries where school exit examinations have been indefinitely postponed, like in **Bangladesh**, no new admissions are as yet planned for public universities. Some elite private universities in Bangladesh however are planning online tests to make admissions decisions. Clear communication for prospective students and households will be important as they will need adequate time to plan and prepare for the admissions procedures.

- **Examination, assessment and graduation requirements.** For the 2019-20 academic year decisions on transition and graduation were also delayed. The HE regulatory bodies in **Bangladesh, India and Pakistan** issued guidelines on examination and admissions[9]. In Bangladesh, for students unable to access and complete examinations using online modalities, they have been granted permission to delay their examinations by a semester. In India, additionally, the University Grants Commission has shared a suggested academic calendar for the next academic year that can be adapted by universities/HEIs based on local conditions.
- Decisions on graduation and associated examinations have required more deliberation due to equity and fairness concerns posed by many of the proposed solutions. In the case of **India** for instance, the government has directed all universities to hold final examinations for graduating students in online, offline or blended modes, and in keeping with health and safety regulations in their respective states. Students will also be given the opportunity to retake examinations at a later date to improve their score. This decision on mandatory assessment has received some pushback from students, parents and HEIs given the

[7] https://www.adb.org/sites/default/files/publication/635911/online-learning-sri-lanka-during-covid-19.pdf
[8] See https://hedr.hec.gov.pk/inded.php?r=covid
[9] For India: https://www.ugc.ac.in/ugc_notices.aspx?id=MjgxNA==

associated health risks (in cases where in-person or blended exams are being organized) and equity and fairness concerns (due to inequitable access to technologies, test security issues, and so on). A more robust system for assessments will need to be developed for scenarios that include extended or frequent closures during the 2020-21 academic year.

Issues and Potential Solutions

Quality of HE

- In the medium-term there may be cuts in resources (human and financial) available to the HE sector impacting the quality of HE. Spending on HE in SAR countries ranges from 10 to 30 percent of total public spending on education. As a fallout of the crisis there may be overall reductions in budgetary allocation to education in general and HE in particular. Limited resources to the sector would adversely impact the availability of adequate human resources (most SAR countries have had a large number of vacancies in faculty positions), funding for research and innovation, student and faculty development programs, and student support services (like remedial education, language labs, and so on).
- To prepare for and address financial shortages in the short to medium term early discussions with relevant ministries on budget impacts can be initiated. Communicating with HEIs about operational budgets will help HEIs plan and prioritize resources required for teaching-learning and research and develop plans for potential program closures and/or staff furloughs. Over the long-term, diversification of financing sources could be considered.

Equity & Demand for HE

- The indeterminate break from academic and research work can increase student dropout rates. Even outside of the current crisis, disadvantaged students and women are more likely to dropout of HE. Bangladesh National University estimates that 26 percent of students drop out of honors degree programs (these are the best college students). The detachment from formal education, impact of health and economic shocks from the crisis (weakening households' capacity to pay for higher education), supply of affordable HE options, digital divide, and so on may significantly increase dropout rates among this group. Households may also discriminate by selecting male children over female children to participate in HE.
- Potential solutions for student support can be varied. The crisis will have an impact on students' academic and economic status and may also affect their physical and socio-emotional health. For dropout prevention and re-enrollment support, governments may, to the extent possible, consider new or additional student financial assistance, continuing student scholarship programs, and community engagement and career counseling services. Supporting students academically after a break from academic work can be provided through remedial education programs, short-term courses or training in specific areas/subjects and peer engagement. Services for graduating students can include short-term training in high-demand courses (for example, the Indian Institutions of Technology have introduced several short-term courses for recent graduates and working professionals focused on AI, Robotics and other cutting-edge technologies) and placement support to ease entry into an unpredictable labor market.

Supply of HE

- Private sector institutions rely heavily on tuition fees and may risk permanent closure in the medium to long-term with the severe economic recession that is predicted to follow the pandemic. Consequently, this may lead to lower overall enrollment in HE. Even if some students shift from private provision to the public system, it will take some time for the public sector to meet the demand for affordable HE.
- HE systems in SAR have substantial contractual teaching staff (numbers) and non-teaching staff. Financial instability of institutions and lower budgetary allocations to the sector could lead to reductions in the number of contractual and non-teaching staff in the system and unemployment within this group.

Operations and governance of HE

- The pandemic is pushing universities towards using digital modes of governance. Most universities in the region were ill-equipped to do so, with localized (e.g. Microsoft Excel) or paper-based administration and payroll.
- Regulators and funding agencies in most countries were not prepared to engage with universities and colleges digitally and did not have fully digitized workflows before the crisis hit. The crisis is creating pressure to digitize and automate the functioning of regulation. In **Pakistan**, for instance, most internal processes in the HEC have transitioned to ERP. A number of core services for students, such as degree attestation, have also now moved to an online system. In **India**, the TEQIP III project is supporting implementation of ERP in engineering institutions on a pilot basis. The software, developed by the IIT Kharagpur, has been customized for engineering colleges and will include a dashboard for overall monitoring by the Technical Education Department.

In the long-run, participation in HE may be reduced, leading to lower human capital accumulation in SAR countries. Given the age-structure in several countries, with a large youth bulge, this could imply a substantial loss in productive potential. Combined with fewer employment opportunities, SAR countries may see an increase in under-employment and unemployment.

Outlook and Recommendations

The mitigation measures suggested in this note acknowledge the current state and capacity of HE systems in SAR. Mitigation measures need to be selective and focused given the fiscal constraints most governments are facing, and the varying capabilities of systems to respond quickly and effectively. The collective motivation to respond in a time of crisis can be capitalized to address and fix persistent system weaknesses. As more information from country governments and HEIs becomes available along with epidemiological and economic scenarios in the medium and long-run, mitigation measures will need to be revisited and prioritized[10]. Even in the short to medium-term, the uncertainty around the duration of ongoing lockdowns and closures will require mitigation efforts to be dynamically adapted to respond to the evolving scenario.

- **Building resilience.** Guidance and protocols can be developed (at the system and HEI levels) focused on health and safety (in case of imminent closures and re-openings), for teaching-learning (under different scenarios), academic decision-making including preparing alternate academic calendars (to ensure smooth transitions) and for communications (with students, staff and stakeholders). Most SAR countries have developed and disseminated basic guidance related to the conduct of classes using alternate modalities during the lockdown and are working on plans for reopening institutions and for admissions and graduation decisions.
- **Communicating regularly.** Establishing communication channels with all stakeholders, especially students, will be key in the short to medium term. Regular updates on the functioning of universities and colleges, available resources, health advisories, and so on will help maintain student/stakeholder expectations and keep them connected with their HEIs during the closures.
- **Supporting students**. The impact of the crisis on students (academically, financially, socioemotionally, etc.) is hard to gauge in the midst of lockdowns. Governments and HEIs would be well placed to anticipate and plan for student support services/programs, ranging from support for academic work to counseling for socioemotional support, career guidance, placement support and short-term training for entry into an unpredictable job market, and student financial support to enable students to enter and/or continue their higher education journeys.

[10] The WB SAR HE portfolio includes 8 projects under implementation (3 in India, 1 each in Afghanistan, Nepal, Pakistan and Sri Lanka) and 2 in the pipeline (Bangladesh and Nepal). Ongoing and planned actions under these projects are summarized in the Annex.

- **Assessing and Building Digital Capabilities.** Assessing the preparedness of HEIs and the sector to offer distance teaching-learning at scale while addressing students' capacity to engage and teachers' capacity to lead the teaching-learning process will be critical going forward. Several HEIs, encouraged by guidance from governments, have moved some teaching and learning to distance modes. The highly specialized skills that go into creating an effective remote digital teaching and learning experience will require planning and partnering with firms and experts across disciplines. Many country governments, include some in SAR, are using the support of externally aided projects to begin this process.
- **Utilizing Research and Educational Networks (RENs).** Several SAR countries have used their NRENs for virtual classes, sharing new and existing digital resources, and supporting research activities. (Details are included in the Appendix). Countries can consider encouraging more HEIs to connect to the NREN over the medium-term.

Annex: Current and Planned Activities under WB-supported TE projects to mitigate impact of COVID and build system resilience

Country/Activity	Supporting alternate modes for education delivery	Building teacher capability/skills	R&D/Innovation	Equity	Other
Afghanistan	ICT centers set up in 10 universities will be used as hubs when lockdowns are lifted for the delivery of ICT services AfgREN will be used to deliver online courses Use of television/radio for teaching-learning is under consideration.	Teachers trained in blended learning to lead online learning efforts.			Recent regime change may affect higher education progress.
Bangladesh	The BdREN is providing connectivity and supercomputing facilities to public and private universities and is also supporting virtual classes in 46 public and private universities. As part of the recently approved Higher Education Acceleration and Transformation (HEAT) project, there are plans to integrate private providers of digital content to expand offerings and upgrade connectivity to reach last mile connections. Under the skills project, which is also recently approved by the Board, Accelerating and Strengthening Skills for Economic Transformation (ASSET), technical programs offering diploma degrees will be brought under BdREN for digital support. The project also plans to develop digital content and support capacity building among teachers.	Teacher training and capacity building on digital pedagogy has been designed under both HEAT and ASSET projects for HE and TVET teachers.	The Academic Innovation Fund to include a new research window for COVID-19/SARS in the academic innovation fund (AIF).	Provision of digital equipment to enhance online access for the disadvantaged students.	The BdREN is being used to share information about Covid-19 and mitigation measures via its Zoom application. Under the new project (HEAT), the capacity of the BdREN will be developed to accommodate the increased demand for digital learning.
India	TEIs are undertaking remote teaching and learning via digitized lectures for students, web-based audio-video conferencing facilities, virtual laboratories, and so on. The use of MOOCs (available on Swayam, NPTEL and other platforms) by students is supported by mapping available courses to the curriculum.	Online teacher training in digital pedagogy is being conducted under various projects.			Under TEQIP III, interactive digital boards have been provided to the over 150 engineering institutions along with teacher training in new pedagogical methods to utilize digital content.

	The UGC has also granted approval for universities to deliver, fully online, bachelors and masters degree programs. A framework for digitalization is being developed to help institutions assess, benchmark and guide their digital transformation.				
Nepal	A new higher education project was recently approved that includes equipping/upgrading the UGC and 9 universities with digital infrastructure and expand connectivity to TEIs in various provinces. Development of digital content will be supported under the project. The establishment and use of online learning platforms will also be supported.	Digital content to be developed for teacher training, and information and awareness campaigns.	Support for collaborative research on coronavirus is provided under the ongoing higher education project.	Expanding access to online learning for disadvantaged students	Assessing digital preparedness of the sector in terms of the current policy/regulatory environment for distance learning, connectivity, human resource capacity, availability of digital content, etc.
Pakistan	The World Bank HEDP project is supporting the migration of higher education institutions to operate in distance mode. Universities with capacity to do so are operating in online mode since 5 April 2020. Universities and colleges reopened on 15 September 2020 but closed again on November 26, 2020 with the rise of the second wave. Universities are in the process of reopening at time of this update in August 2021. The government has issued guidance[11] to HEIs, and had earlier provided guidance on operating in distance mode. The HEC and the NREN (PERN) has provided support to universities in the form of offering remote learning systems, video conferencing, strengthening networks, and offering pedagogical support.	The National Academy for Higher Education (launched June 2019) is providing teaching support to new entrants into the academic labor market and has organized discussions on teaching in the new environment. Guidance to university faculty has been issued on remote learning. Universities and HEC have offered a variety of helpdesk support and software options to transition to remote learning. Well over 100,000 courses have been conducted online.	An emergency call for research, innovations and technology transfers related to COVID-19 has been sent out. 10 research teams (out of 572 proposals) have been awarded grants up to US$ 100,000.	The HEC has awarded scholarships to the poorest students and telcos have offered reduced rates to students for bandwidth.	HEC has moved core operations online, is upgrading its cloud architecture and is helping institutions to migrate core operations to an ERP and Student Lifecycle Solution.
Sri Lanka	Universities are commencing/have commenced digital-based education and e-learning courses utilizing		Research into Covid-19 responses are in progress		Plans are being developed to link students with the world of work through job

[11] https://www.hec.gov.pk/english/HECAnnouncements/Documents/nCoVirus/Further-Guidance-HEIs.pdf

	equipment and technology provided by AHEAD		Innovations that will help promote the development of industry, services and agriculture during the phase of recovery and reconstruction are in progress		placements and internships when curfew has been lifted and economic activities can resume