COVID-19 CORONAVIRUS RESPONSE

South Asia: Higher Education[1]

Context

The higher education (HE) system in South Asia (SAR) is vast. Compared to other regions, it is the second largest in terms of enrollment and accounts for 18 percent of all tertiary education students globally. Over 42 million students are enrolled in about 50,000 higher education institutions (HEIs) across the eight countries. The private sector is an important player in technical education in the region; in India and Nepal, private universities, colleges, and stand-alone institutions account for over 65 percent of higher education enrollment; 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 enrollment. A substantial share of students are 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 enrollments 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 are limited.

India	37M students
Bangladesh	2M 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 a wide-ranging impact. Owing to the pandemic, all SAR governments have closed HEIs. In many cases, the closures have come toward 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.[2] Crisis situations exacerbate existing weaknesses in the system, and what is known from past disasters is that the health and preparedness of communities and institutions before the disaster are predictive of impact of the crisis. That said, the crisis has been taken by universities, colleges, and regulators as an opportunity to move operations online, accelerating trends that had already started.

Impact and Mitigation: Teaching-Learning and Research

- The impact of university and college closures directly affect youth aged 18 to 24 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 digital resources and to use them to maintain some continuity with academic work during the closures, disadvantaged students (first-generation college goers, women, tribal youth, economically disadvantaged) and those at non-elite institutions (particularly those enrolled in the college sector[3]) will likely suffer deeper learning losses.

[1] This note was prepared by Namrata Tognatta with contributions from the SAR Higher Education team (Sangeeta Goyal, Koen Geven, Kurt Larsen, Harsha Aturupane, and Mohan Prasad Aryal). The note is focused on the potential impact of COVID-19 on higher education in South Asia, 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] "The COVID-19 Pandemic. Shocks to Education and Policy Responses," World Bank, Washington, DC, 2020; https://openknowledge.worldbank.org/handle/10986/33696).

[3] The "college sector" includes colleges, both public and private, affiliated to universities.

- 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 difficulties accessing higher education, and for poor girls, the probability of accessing education is virtually nil.[4] 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 youths' time, and reduction in HE supply.
- There are a large number of teachers in the SAR higher education system. In many cases, there is an expectation from ministries or 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 (such as infrastructure and content) 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) will pose challenges. 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 the 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 such as that involving experimentation and specialized equipment (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 microbiology, are contributing to the crisis response, often without proper resources. Where possible, funding agencies and regulators are trying to issue rapid research calls.
- 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, which receive large numbers of international students, and decisions on international academic mobility may decline.

BOX 1. ONGOING EFFORTS

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

Ad-hoc use of digital content and alternate modalities. In Bangladesh, India, Nepal, Pakistan, and Sri Lanka, teachers are sharing digitized lectures and study materials with students, using cloud-based audio-video conferencing services for teaching, and using virtual laboratories for experimentation and practical demonstrations.

Leveraging the "Open" Universities. Bangladesh, India, and Pakistan are sharing digital resources developed and available through their "open universities" (that conduct distance education) with students through YouTube, internet radio, and web-based television. The use of MOOCs is being encouraged in most SAR countries.

MOOCs. In India, national platforms like Swayam and NPTEL have large offerings. In some cases, like in engineering, online courses have been mapped to the engineering curriculum and rated for quality and relevance, making it somewhat more structured and enabling students to continue their academic work.

- **Maintaining continuity with academic work.** HEIs are moving toward distance learning to various degrees, either supported by the 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, and web-conferencing for teaching and discussion, to the use of virtual laboratories for practical demonstrations and experiments. (Box 1 lays out current efforts underway in SAR countries.) In general, the use of various available digital resources is mostly left to the students, without much

[4] "Ready to Learn – Before School, In School and Beyond School in South Asia," World Bank, Washington, DC, 2020.

accountability. There is not yet a formal structure or guidelines provided to students that lay out a schedule or plan for academic work, with corresponding resources for use during closures. Nor is it clear (due to lack of data) how many students can be covered by different distance learning modalities. Initial experimental figures indicate that the number is quite small.

- In the short term, the focus should be on using, where possible, existing resources (across modalities—online and television). To do so would require **curating and mapping available content to programs/courses** for ease of use by teachers and students. Over the medium and long term, HE systems and institutions will need to systematically plan, pilot, and scale distance learning solutions (see box 2 for more information).
- **Rapid Response Surveys to assess digital preparedness.** In the short to medium term, rapid response surveys could be used to 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 distance learning platforms for teaching-learning and research. This will help governments, universities, and HEIs identify what will be needed to continue remote academic and research work.

Impact and Mitigation: Admissions, Examinations, and Graduation

- Delays in end-of-year or end-of-semester examinations and the unpreparedness of most systems to conduct remote assessments of student learning will likely delay student transition and graduation decisions.
- Online admissions procedures in several HEIs will 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.

BOX 2. GUIDANCE FOR DISTANCE LEARNING*

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

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

- **Admissions.** The timing of admissions and related processes (considering delays in school-leaving and entrance examinations, social distancing policies, administrative requirements at HEIs to carry out and complete admissions, and other health and safety measures) for the 2020–21 academic year will need to be decided in the short term and clearly communicated to prospective students. Students and households will need to be given 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 will need to be determined in the short term to ensure smooth transitions when colleges reopen. HEIs can consider using a pass/fail system (or other relatively simple-to-implement systems) to make immediate decisions on transition and graduation. A more robust system will need to be developed for scenarios that include extended or frequent closures during the 2020–21 academic year.
- The HE regulatory bodies in Bangladesh and India have issued guidelines on examination and admission.[5] In Bangladesh, students unable to access and complete examinations using online modalities have been granted permission to delay their examinations by a semester. In India, the University Grants Commission

[5] For India: https://www.ugc.ac.in/ugc_notices.aspx?id=MjgxNA==.

has shared a suggested academic calendar for the next academic year that can be adapted by universities/HEIs based on local conditions.

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 (such as remedial education and language labs).
- 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 and 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 drop out of HE. Bangladesh National University estimates that 26 percent of students drop out of honors degree programs (these are the best college students). Such factors as the detachment from formal education, impact on health, economic shocks from the crisis (weakening household capacity to pay for higher education), and supply of affordable HE options 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 student 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 or subjects, and peer engagement. Services for graduating students can include short-term training in high-demand courses 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. The 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 toward using digital modes of governance. Most universities in the region were ill-equipped to do so, with localized (for example, 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 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 underemployment 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 will 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 term, mitigation measures will need to be revisited and prioritized.[6] 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).
- **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 other relevant information, 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, socio-emotionally) is hard to gauge in the midst of the lockdowns. Governments and HEIs would be well placed to anticipate and plan for student support services and programs, ranging from support for academic work to counseling for socio-emotional 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.
- **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. Country governments could consider using the support of externally aided projects to begin this process.
- **Using 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 Annex). Countries can consider encouraging more HEIs to connect to the NRENs over the medium term.

[6] The World Bank SAR higher education portfolio includes seven projects under implementation (three in India and one each in Afghanistan, Nepal, Pakistan, and Sri Lanka), and two in the pipeline (Bangladesh and Nepal). Ongoing and planned actions under these projects are summarized in the Annex.

Annex: Current and planned activities under World Bank-supported technical education projects

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. The Afghan Research and Education Network (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.			
Bangladesh	The Bangladesh Research and Education Network (BdREN) is providing connectivity and supercomputing facilities to public and private universities and is supporting virtual classes in 46 public and private universities. As part of the pipeline project under preparation, plans include integrating private providers of digital content to expand offerings and upgrade connectivity to reach last-mile connections.	A subcomponent on digital pedagogy to be added to pipeline project under preparation.	The Academic Innovation Fund to include a new research window for COVID-19/SARS.		The BdREN is being used to share information about COVID-19 and mitigation measures via its Zoom application.
India	Technical Education Institutions (TEIs) are undertaking remote teaching and learning via, for example, digitized lectures for students (Madhya Pradesh), web-based audio-video conferencing facilities, and virtual laboratories. The use of MOOCs (available on Swayam, National Programme on Technology Enhanced Learning [NPTEL], and other platforms) by students is supported by mapping available courses to the curriculum (currently done for engineering) and providing expert ratings for quality and relevance.	Online teacher training in digital pedagogy. So far, about 2,200 faculty have completed the training and about 1,500 are currently enrolled.			Under the Third Phase of Technical Education Quality Improvement Programme (TEQIP-III), interactive digital boards are being provided to the over 150 engineering institutions along with teacher training in new pedagogical methods to use digital content.
Nepal	The new pipeline project under preparation will include equipping/upgrading the user-generated content (UGC) and 9 universities with digital infrastructure and expanding connectivity to TEIs in	Digital content to be developed for teacher training and for information and awareness campaigns.			The project will assess the digital preparedness of the sector in terms of the current policy/ regulatory environment for distance learning,

	various provinces. Development of digital content will be supported under the project. The establishment and use of online learning platforms will be supported under the ongoing HE project.				connectivity, human resource capacity, availability of digital content, and other relevant factors.
Pakistan	The World Bank Higher Education Development in Pakistan (HEDP) project is supporting the migration of higher education institutions to operate in distance mode. Universities with the capacity to do so have been operating in online mode since April 5. The government has issued guidance to HEIs on operating in distance mode. The NREN (PERN) has created a national learning platform. A MOOCs platform is also being established.	A 24/7 helpdesk and "student tech brigade" is being created to support distance learning. The National Academy for Higher Education (launched in June 2019) is providing teaching support to new entrants into the academic labor market.	An emergency call for research, innovations, and technology transfers related to COVID-19 has been sent out. 10 proposals (out of 572 proposals) have been deemed eligible and have been advanced for full proposal.	The Higher Education Commission is creating a free student bundle for connectivity for students who do not currently have internet access, and a device loan scheme is being created for laptops and smartphones. Scholarships for students from broadly the bottom quintile of the income distribution to compensate for income loss.	Provision of internship-/stipend-based remote work possibilities to students.
Sri Lanka	Universities are commencing/have commenced digital-based education and e-learning courses using equipment and technology provided by Accelerating Higher Education Expansion and Development (AHEAD).		Research into COVID-19 responses is in progress. Innovations to help promote the development of industry, services, and agriculture during the phase of recovery and reconstruction are in progress.		Plans are being developed to link students with the world of work through job placements and internships when the curfew has been lifted and economic activities can resume.